

UNITED MICROELECTRONICS CORP
Form 20-F
April 21, 2015
Table of Contents

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 20-F

(Mark One)

Registration statement pursuant to Section 12(b) or 12(g) of the Securities Exchange Act of 1934
or

Annual report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934
For the fiscal year ended December 31, 2014

or

Transition report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934
For the transition period from _____ to _____

or

Shell company report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934
Date of event requiring this shell company report _____

Commission file number 001-15128

United Microelectronics Corporation

(Exact Name of Registrant as Specified in its Charter)

Taiwan, Republic of China

(Jurisdiction of Incorporation or Organization)

No. 3 Li-Hsin Road II, Hsinchu Science Park,

Hsinchu City, Taiwan, Republic of China

(Address of Principal Executive Offices)

Chitung Liu, +886-2-2658-9168, chitung_liu@umc.com,

8F, No. 68, Section 1, Neihu Road., Taipei 11493, Taiwan R.O.C.

(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)

Securities registered or to be registered pursuant to Section 12(b) of the Act:

Title of Each Class	Name of Each Exchange on which Registered
American Depositary Shares, as evidenced by American Depositary Receipts, each representing 5 Common Shares	New York Stock Exchange

Securities registered or to be registered pursuant to Section 12(g) of the Act:

None

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act:

None

Indicate the number of outstanding shares of each of the Issuer's classes of capital or common stock as of the close of the period covered by the annual report.

12,725,207,790 Common Shares of Registrant issued as of December 31, 2014 (including 194,510,000 treasury shares)

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. Yes No

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer Accelerated filer Non-accelerated filer

Edgar Filing: UNITED MICROELECTRONICS CORP - Form 20-F

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP International Financial Reporting Standards as issued Other

by the International Accounting Standards Board

If Other has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow. Item 17 Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Securities Exchange Act of 1934). Yes No

Table of Contents

UNITED MICROELECTRONICS CORPORATION

FORM 20-F ANNUAL REPORT

FISCAL YEAR ENDED DECEMBER 31, 2014

Table of Contents

	Page
<u>SUPPLEMENTAL INFORMATION</u>	1
<u>PART I</u>	3
ITEM 1. <u>IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS</u>	3
ITEM 2. <u>OFFER STATISTICS AND EXPECTED TIMETABLE</u>	3
ITEM 3. <u>KEY INFORMATION</u>	3
ITEM 4. <u>INFORMATION ON THE COMPANY</u>	22
ITEM 4A. <u>UNRESOLVED STAFF COMMENTS</u>	42
ITEM 5. <u>OPERATING AND FINANCIAL REVIEW AND PROSPECTS</u>	42
ITEM 6. <u>DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES</u>	58
ITEM 7. <u>MAJOR STOCKHOLDERS AND RELATED PARTY TRANSACTIONS</u>	62
ITEM 8. <u>FINANCIAL INFORMATION</u>	63
ITEM 9. <u>THE OFFER AND LISTING</u>	65
ITEM 10. <u>ADDITIONAL INFORMATION</u>	67
ITEM 11. <u>QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK</u>	85
ITEM 12. <u>DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES</u>	88
<u>PART II</u>	90
ITEM 13. <u>DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES</u>	90
ITEM 14. <u>MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS</u>	90
ITEM 15. <u>CONTROLS AND PROCEDURES</u>	90
ITEM 16.	93
ITEM 16A. <u>AUDIT COMMITTEE FINANCIAL EXPERT</u>	93
ITEM 16B. <u>CODE OF ETHICS</u>	93
ITEM 16C. <u>PRINCIPAL ACCOUNTANT FEES AND SERVICES</u>	93
ITEM 16D. <u>EXEMPTIONS FROM THE LISTING STANDARDS FOR AUDIT COMMITTEES</u>	94
ITEM 16E. <u>PURCHASE OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS</u>	94
ITEM 16F. <u>CHANGE IN REGISTRANT'S CERTIFYING ACCOUNTANT</u>	94
ITEM 16G. <u>CORPORATE GOVERNANCE</u>	94
ITEM 16H. <u>MINE SAFETY DISCLOSURE</u>	95
<u>PART III</u>	95
ITEM 17. <u>FINANCIAL STATEMENTS</u>	95
ITEM 18. <u>FINANCIAL STATEMENTS</u>	95

ITEM 19.

EXHIBITS

96

i

Table of Contents

SUPPLEMENTAL INFORMATION

The references to United Microelectronics, we, us, our, our company and the Company in this annual report refer to United Microelectronics Corporation and its consolidated subsidiaries, unless the context suggests otherwise. The references to Taiwan and R.O.C. refer to Taiwan, Republic of China. The references to PRC refer to People's Republic of China. The references to shares and common shares refer to our common shares, par value NT\$10 per share, and ADSs refers to our American depositary shares, each representing five common shares. The ADSs are issued under the Deposit Agreement, dated as of October 21, 2009, as amended, supplemented or modified from time to time, among United Microelectronics, JPMorgan Chase Bank, N.A. and the holders and beneficial owners from time to time of American Depositary Receipts issued thereunder. The references to TIFRSs refers to the Taiwan International Reporting Standards as issued by the Financial Supervisory Commission in the Republic of China, IFRSs refers to International Financial Reporting Standards as issued by the International Accounting Standards Board, or IASB, R.O.C. GAAP refers to the generally accepted accounting principles in the Republic of China, and U.S. GAAP refers to the generally accepted accounting principles in the United States. Any discrepancies in any table between totals and sums of the amounts listed are due to rounding. Any discrepancies in any table between totals and sums of the amounts listed are due to rounding.

We publish our financial statements in New Taiwan dollars, the lawful currency of the R.O.C. In this annual report, NT\$ and NT dollars mean New Taiwan dollars, \$, US\$ and U.S. dollars mean United States dollars, ¥ means Yen, and € means EURO.

FORWARD-LOOKING STATEMENTS IN THIS ANNUAL REPORT MAY NOT BE REALIZED

Our disclosure and analysis in this annual report contain or incorporate by reference some forward-looking statements. Our forward-looking statements contain information regarding, among other things, our financial condition, future expansion plans and business strategy. We have based these forward-looking statements on our current expectations and projections about future events. You can identify these statements by the fact that they do not relate strictly to historical or current facts. Although we believe that these expectations and projections are reasonable, such forward-looking statements are inherently subject to risks, uncertainties and assumptions about us, including, among other things:

our dependence on frequent introduction of new product services and technologies based on the latest developments;

the intensely competitive semiconductor, communications, consumer electronics and computer industries and markets;

risks associated with our international business activities;

our dependence on key personnel;

general economic and political conditions, including those related to the semiconductor, communications, consumer electronics and computer industries;

natural disasters, such as earthquakes and droughts, which are beyond our control;

possible disruptions in commercial activities caused by natural and human-induced disasters, and outbreaks of contagious diseases;

fluctuations in foreign currency exchange rates;

additional disclosures we make in our previous and future Form 20-F annual reports and Form 6-K periodic reports to the U.S. Securities and Exchange Commission, or the U.S. SEC; and

those other risks identified in the Item 3. Key Information-D. Risk Factors section of this annual report.

Table of Contents

The words may, will, is/are likely to, anticipate, believe, estimate, expect, intend, plan and similar expressions are intended to identify a number of these forward-looking statements. We do not and will not undertake the obligation to update or revise any forward-looking statements contained in this annual report whether as a result of new information, future events or otherwise. In light of these risks, uncertainties and assumptions, the forward-looking events discussed in this annual report might not occur and our actual results could differ materially from those anticipated in these forward-looking statements.

GLOSSARY

ASIC	Application Specific Integrated Circuit. A custom-designed integrated circuit that performs specific functions which would otherwise require a number of off-the-shelf integrated circuits to perform.
Cell	Semiconductor structure in an electrical state which can store a bit of information, mainly used as the building block of memory array.
Die	A piece of a semiconductor wafer containing the circuitry of an unpackaged single chip.
DRAM	Dynamic Random Access Memory. A type of volatile memory product that is used in electronic systems to store data and program instructions. It is the most common type of RAM and must be refreshed with electricity hundreds of times per second or else it will fade away.
EUV Lithography	Extreme Ultraviolet Lithography
FinFET	Fin Field-Effect Transistor
FPGA	Field Programmable Gate Array. A programmable integrated circuit.
Integrated Circuit	Entire electronic circuit built on a single piece of solid substrate and enclosed in a small package. The package is equipped with leads needed to electrically integrate the integrated circuit with a larger electronic system. Monolithic and hybrid integrated circuits are distinguished by the type of substrate used.
Interconnect	The conductive path made from copper or aluminum that is required to achieve connection from one circuit element to the other circuit elements within a circuit.
Mask or Photomask	A piece of glass on which an integrated circuit circuitry design is laid out.
Memory	A group of integrated circuits that a computer uses to store data and programs, such as ROM, RAM, DRAM and SRAM.
Micron	A unit of spatial measurement that is one-millionth of a meter.
Nanometer	A unit of spatial measurement that is one-billionth of a meter.
PC	Personal computer.
RAM	Random Access Memory. A type of volatile memory forming the main memory of a computer where applications and files are run.
ROM	Read-Only Memory. Memory that is programmed by the manufacturer and cannot be changed. Typically, ROM is used to provide start-up data when a computer is first turned on.

Table of Contents

Scanner	A photolithography tool used in the production of semiconductor devices. This camera-like step-and-scan tool projects the image of a circuit from a master image onto a photosensitized silicon wafer.
Semiconductor	A material with electrical conducting properties in between those of metals and insulators. Essentially, semiconductors transmit electricity only under certain circumstances, such as when given a positive or negative electric charge. Therefore, a semiconductor's ability to conduct can be turned on or off by manipulating those charges and this allows the semiconductor to act as an electric switch. The most common semiconductor material is silicon, used as the base of most semiconductor chips today because it is relatively inexpensive and easy to create.
SoC	System-on-Chip. A chip that incorporates functions currently performed by several chips on a cost effective basis.
SOI	Silicon-On-Insulator. Silicon wafer consisting of a thin layer of oxide, on top of which semiconductor devices are built.
SRAM	Static Random Access Memory. A type of volatile memory product that is used in electronic systems to store data and program instructions. Unlike the more common DRAM, it does not need to be refreshed.
Transistor	Tri-terminal semiconductor device in which input signal (voltage or current depending on the type of transistor) controls output current. An individual circuit that can amplify or switch electric current. This is the building block of all integrated circuits.
Volatile memory	Memory products which lose their data content when the power supply is switched off.
Wafer	Thin, round, flat piece of silicon that is the base of most integrated circuits.
8-inch wafer equivalents	Standard unit describing the equivalent amount of 8-inch wafers produced after conversion, used to quantify levels of wafer production for purposes of comparison. Figures of 8-inch wafer equivalents are derived by converting the number of wafers of all dimensions (e.g., 6-inch, 8-inch and 12-inch) into their equivalent figures for 8-inch wafers. 100 6-inch wafers are equivalent to 56.25 8-inch wafers. 100 12-inch wafers are equivalent to 225 8-inch wafers.

PART I

ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS

Not applicable.

ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE

Not applicable.

ITEM 3. KEY INFORMATION

A. Selected Financial Data

The selected consolidated balance sheets data as of January 1, 2012, December 31, 2012, 2013 and 2014 and the selected consolidated statements of comprehensive income data for the years ended December 31, 2012, 2013 and 2014 are derived from our audited consolidated financial statements included elsewhere in this annual report. In accordance with the requirements of the Taiwan Financial Supervisory Commission, or FSC, beginning on January 1, 2013, we have adopted Taiwan-IFRSs, which is translated and published by Accounting Research and Development Foundation, or ARDF, referred to as TIFRSs for reporting our annual and interim consolidated financial statements in the R.O.C. At the same time, we have adopted IFRSs as issued by the IASB for our annual reports on Form 20-F with the U.S. SEC beginning with the year ended December 31, 2013. However, since January 1, 2013, we only prepare our interim unaudited quarterly financial statements under TIFRSs, which are furnished to the SEC on Form 6-K.

Table of Contents

In accordance with rule amendments adopted by the U.S. SEC for foreign private issuers reporting under IFRSs, we are not required to provide reconciliations to U.S. GAAP in this annual report following our adoption of IFRSs.

The summary financial data set forth below should be read in conjunction with Item 5. Operating and Financial Review and Prospects and our consolidated financial statements and the notes to those statements included in this annual report.

	Years Ended December 31,			
	2012	2013	2014	US\$
	NT\$	NT\$	NT\$	US\$
	(in millions, except per share and per ADS data)			
Consolidated Statements of Comprehensive Income Data				
Net operating revenues	115,675	123,812	140,012	4,431
Operating costs	(96,365)	(100,249)	(108,159)	(3,423)
Gross profit	19,310	23,563	31,853	1,008
Operating expenses	(15,697)	(19,406)	(21,238)	(672)
Net other operating income and expenses	(2,791)	(125)	(539)	(17)
Operating income	822	4,032	10,076	319
Non-operating income and expenses	5,473	10,309	3,496	111
Income from continuing operations before income tax	6,295	14,341	13,572	430
Income tax expense	(2,146)	(2,257)	(3,125)	(99)
Net income	4,149	12,084	10,447	331
Other comprehensive income (loss)	(6,381)	198	6,069	192
Total comprehensive income (loss)	(2,232)	12,282	16,516	523
Net income attributable to:				
Stockholders of the parent	6,094	12,609	11,109	352
Non-controlling interests	(1,945)	(525)	(662)	(21)
Total comprehensive income (loss) attributable to:				
Stockholders of the parent	(281)	12,796	17,035	539
Non-controlling interests	(1,951)	(514)	(519)	(16)
Earnings per share: ⁽¹⁾				
Basic	0.49	1.02	0.90	0.03
Diluted ⁽²⁾	0.46	0.96	0.89	0.03
Common shares used in earnings per share calculation:				
Basic	12,464	12,346	12,334	12,334
Diluted ⁽²⁾	13,289	13,150	12,719	12,719

Earnings per ADS equivalent:

Basic	2.44	5.11	4.50	0.14
Diluted ⁽²⁾	2.32	4.82	4.44	0.14

	As of				
	January 1,	December 31,	December 31,		
	2012	2012	2013	December 31, 2014	
	NT\$	NT\$	NT\$	NT\$	US\$
	(in millions, except per share data)				

Consolidated Balance Sheets Data

Total assets	279,336	281,214	293,914	310,648	9,831
Total liabilities	69,780	79,526	84,270	90,309	2,858
Stockholders' equity	209,556	201,688	209,644	220,339	6,973
Capital stock ⁽³⁾	130,845	129,521	126,946	127,303	4,029
Dividends declared per share ⁽⁴⁾	1.11	0.50	0.40	0.50	0.02

Table of Contents

	For the years ended December 31,			
	2012	2013	2014	
	NT\$	NT\$	NT\$	US\$
	(in millions)			
Segment Data				
Net operating revenues				
Wafer fabrication	108,624	116,782	129,449	4,097
New business	7,051	7,030	10,563	334
Net income (loss) ⁽⁵⁾				
Wafer fabrication	6,094	12,710	11,260	356
New business	(5,583)	(2,553)	(2,489)	79

- (1) Earnings per share is calculated by dividing net income by the weighted average number of common shares outstanding during the year.
- (2) Diluted securities include convertible bonds, employee stock options and employee bonus, if any.
- (3) Changes to the number of the capital common shares are primarily caused by the share-based payment transactions and the cancellation of treasury stocks, if any.
- (4) Dividends declared per share are in connection with earnings and accumulated additional paid-in capital.
- (5) There are adjustments primarily consisted of intragroup elimination entries.

Currency Translations and Exchange Rates

In portions of this annual report, we have translated New Taiwan dollar amounts into U.S. dollars for the convenience of readers. The rate we used for the translations was NT\$31.60 = US\$1.00, which was the noon buying rate as certified for customs purposes by the Federal Reserve Bank of New York on December 31, 2014. The translation does not mean that New Taiwan dollars could actually be converted into U.S. dollars at that rate. The following table shows the noon buying rates for New Taiwan dollars expressed in New Taiwan dollar per US\$1.00. On April 17, 2015, the noon buying rate was NT\$31.05 to US\$1.00.

	Average (1)	High	Low	At Period- End
2010	31.50	32.43	29.14	29.14
2011	29.38	30.67	28.50	30.27
2012	29.56	30.28	28.96	29.05
2013	29.73	30.20	29.93	29.83
2014	30.38	31.80	29.85	31.60
October	30.40	30.49	30.31	30.45
November	30.73	30.99	30.48	30.99
December	31.35	31.80	31.03	31.60
2015 (through April 17)	31.37	32.00	30.87	31.05
January	31.64	32.00	31.06	31.75
February	31.55	31.76	31.31	31.44
March	31.44	31.71	31.19	31.24
April (through April 17)	31.12	31.33	30.87	31.05

Source: Federal Reserve Statistical Release, Board of Governors of the Federal Reserve System.

- (1) Determined by averaging the rates on the last business day of each month during the relevant period for annual periods, and by averaging the rates on each business day for monthly periods.

B. Capitalization and Indebtedness

Not applicable.

Table of Contents

C. Reasons for the Offer and Use of Proceeds

Not applicable.

D. Risk Factors

Our business and operations are subject to various risks, many of which are beyond our control. If any of the risks described below actually occurs, our business, financial condition or results of operations could be seriously harmed.

Risks Related to Our Business and Financial Condition

Any global systemic political, economic and financial crisis or catastrophic natural disasters (as well as the indirect effects flowing therefrom) could negatively affect our business, results of operations, and financial condition.

In recent times, several major systemic economic and financial crises and natural disasters negatively affected global business, banking and financial sectors, including the semiconductor industry and markets. These types of crises cause turmoil in global markets that often result in declines in electronic products sales from which we generate our income through our goods and services. In addition, these crises may cause a number of indirect effects such as undermining the ability of our customers to remain competitive when faced with the financial and economic challenges created by insolvent countries and companies still struggling to survive in the wake of these crises. For example, there could be in the future knock-on effects from these types of crises on our business, including significant decreases in orders from our customers; insolvency of key suppliers resulting in product delays; inability of customers to obtain credit to finance purchases of our products; customer insolvencies; and counterparty failures negatively impacting our treasury operations. Any future systemic political, economic or financial crises or catastrophic natural disasters (as well as the indirect effects flowing from these crises or disasters) could cause revenues for the semiconductor industry as a whole to decline dramatically, and if the economic conditions or financial condition of our customers were to deteriorate, additional accounting related allowances may be required in the future and such additional allowances could increase our operating expenses and therefore reduce our operating income and net income. Thus, any future global economic crisis or catastrophic natural disaster (and their indirect effects) could materially and adversely affect our results of operations.

In 2009, we established a 100% owned subsidiary, UMC New Business Investment Corporation, or NBI, to focus on investments in the solar energy, and light emitting diodes, or LED, light source module design, epi wafer manufacturing, and packaging. In recent years, the growth of solar energy and LED industries is adversely affected by the on-going anti-subsidy and anti-dumping investigations from various regions, the combination of an increase in supply coupled with a decrease in the availability of government subsidies and the decrease in the price of international crude oil resulted in an excess of supply in the solar energy and LED industries and negative pressure on the pricing. As a result, we recognized impairment for our investments in these industries made through NBI. If the solar energy and LED industries continue to encounter significant downturns or significant reductions of government subsidies, our investments made through NBI will be adversely affected which could adversely affect our results of operations.

The seasonality and cyclical nature of the semiconductor industry and periodic overcapacity make us particularly vulnerable to significant and sometimes prolonged economic downturns.

The semiconductor industry has historically been highly cyclical and, at various times, has experienced significant downturns. Since most of our customers operate in semiconductor-related industries, variations in order levels from our customers can result in volatility in our revenues and earnings. Because our business is, and will continue to be,

largely dependent on the requirements of semiconductor companies for our services, downturns in the semiconductor industry will lead to reduced demand for our services.

Our net operating revenues are also typically affected by seasonal variations in market conditions that contribute to the fluctuations of the average selling price of semiconductor services and products. The seasonal sales trends for semiconductor services and products closely mirror those for consumer electronics, communication and computer sales. We generally experience seasonal lows in the demand for semiconductor services and products during the first half of the year, primarily as a result of inventory correction by our customers. Any change in the general seasonal variations, which we cannot anticipate, may result in materially adverse effects on our revenues, operations and businesses.

Table of Contents

Our operating results fluctuate from quarter to quarter, which makes it difficult to predict our future performance.

Our revenues, expenses and results of operations have varied significantly in the past and may fluctuate significantly from quarter to quarter in the future due to a number of factors, many of which are beyond our control. Our business and operations have at times in the past been negatively affected by, and are expected to continue to be subject to the risk of the following factors:

the seasonality and cyclical nature of both the semiconductor industry and the markets served by our customers;

our customers' adjustments in their inventory;

the loss of a key customer or the postponement of orders from a key customer;

the rescheduling and cancellation of large orders;

our ability to obtain equipment, raw materials, electricity, water and other required utilities on a timely and economic basis;

outbreaks of contagious diseases, including severe acute respiratory syndrome, avian flu and swine flu;

environmental events, such as fires and earthquakes, or industrial accidents; and

technological changes.

Due to the factors noted above and other risks discussed in this section, many of which are beyond our control, you should not rely on quarter-to-quarter comparisons to predict our future performance. Unfavorable changes in any of the above factors may seriously harm our business, financial condition and results of operations. In addition, our operating results may be below the expectations of public market analysts and investors in some future periods. In this event, the price of the common shares or ADSs may underperform or fall.

A decrease in demand for or selling prices of communication devices, consumer electronics and computer goods may decrease the demand for our services and reduce our margins.

Our customers generally use the semiconductors produced in our fabs in a wide variety of applications. We derive a significant percentage of our operating revenues from customers who use our manufacturing services to make semiconductors for communication devices, consumer electronics, PCs and other computers. The semiconductor industry experienced several downturns due to recent major financial crises and natural disasters. These downturns resulted in a reduced demand for our services and hence decreased our revenues and earnings. Any significant decrease in the demand for communication devices, consumer electronics, PCs or other computers may further

decrease the demand for our services. In addition, if the average selling price of communication devices, consumer electronics, PCs or other computers decline significantly, we will be pressured to further reduce our selling prices, which may reduce our revenues and, therefore, reduce our margins significantly. As demonstrated by downturns in demand for high technology products in the past, market conditions can change rapidly, without apparent warning or advance notice. In such instances, our customers will experience inventory buildup and/or difficulties in selling their products and, in turn, will reduce or cancel orders for wafers from us. The timing, severity and recovery of these downturns cannot be predicted accurately or at all. When they occur, our business, profitability and price of the common shares and ADSs are likely to suffer.

Table of Contents

Overcapacity in the semiconductor industry may reduce our revenues, earnings and margins.

The prices that we can charge our customers for our services are significantly related to the overall worldwide supply of integrated circuits and semiconductor products. The overall supply of semiconductor products is based in part on the capacity of other companies, which is outside of our control. For example, in light of the current market conditions, some companies, including our largest competitors, have announced plans to increase capacity expenditures significantly. We believe such plans, if carried out as planned, will increase the industry-wide capacity and are likely to result in overcapacity in the future. In periods of overcapacity, if we are unable to offset the adverse effects of overcapacity through, among other things, our technology and product mix, we may have to lower the prices we charge our customers for our services and/or we may have to operate at significantly less than full capacity. Such actions could reduce our margin and weaken our financial condition and results of operations. We cannot give any assurance that an increase in the demand for foundry services in the future will not lead to overcapacity in the near future, which could materially adversely affect our revenues, earnings and margins.

Any problem in the semiconductor outsourcing infrastructure can adversely affect our net operating revenues and profitability.

Many of our customers depend on third parties to provide mask tooling, assembly and test services. If these customers cannot timely obtain these services on reasonable terms, they may not order any foundry services from us. This may significantly reduce our net operating revenues and negatively affect our profitability.

We may be unable to implement new technologies as they become available, which may result in the decrease of our profitability and the loss of customers and market share.

The semiconductor industry is developing rapidly and the related technology is constantly evolving. If we do not anticipate the technology evolution and rapidly adopt new and innovative technology, we may not be able to produce sufficiently advanced services at competitive prices. There is a risk that our competitors may adopt new technology before we do, resulting in our loss of market share. If we are unable to begin offering advanced services and processes on a competitive and timely basis, we may lose customers to our competitors providing similar technologies, which may cause our net operating revenues to decline unless we can replace lost customers with new customers. In addition, the market prices for advanced technology and services tend to fall over time. As a result, if we are unable to offer new advanced services and processes on a competitive and timely basis, we need to decrease the prices that we set for our existing services and processes, which would have a negative effect on our profitability. We also depend upon the introduction of new technologies on a timely basis in order to benefit from the relatively higher prices such new technologies offer in the earlier stages of their life cycles. If we are unable to introduce new technologies on a timely and competitive basis, we may not be able to benefit from the relatively higher prices for new technologies, and our average selling price and profits would decrease accordingly.

We may be unable to provide leading technology to our customers if we lose the support of our technology partners.

Enhancing our manufacturing process technologies is critical to our ability to provide services for our customers. We intend to continue to advance our process technologies through internal research and development and alliances with other companies. Although we have an internal research and development team focused on developing new and improved semiconductor manufacturing process technologies, we are also dependent on some of our technology partners to advance certain process technology portfolios. In addition, we currently have patent cross-licensing agreements with several companies, including International Business Machines Corporation, or IBM. Some mask and equipment vendors also supply our technology development teams with masks and equipment needed to develop more

advanced processing technologies. If we are unable to continue any of our joint development arrangements, patent cross-licensing agreements and other agreements, on mutually beneficial economic terms, if we re-evaluate the technological and economic benefits of such relationships, if we are unable to enter into new technology alliances and arrangements with other leading and specialty semiconductor companies, or if we fail to secure masks and equipment from our vendors in a timely manner sufficient to support our ongoing technology development, we may be unable to continue providing our customers with leading edge mass-producible process technologies and may, as a result, lose important customers, which would have a materially adverse effect on our businesses, results of operations and financial condition.

Table of Contents

In addition, some of our customers rely upon third-party vendors, or intellectual property vendors, for the intellectual property they embed into their designs. Although we work and collaborate with intellectual property vendors with respect to such matters, there can be no guarantee that we will be successful or that the vendors will deliver according to our requirements or the needs of our customers. Failures to meet the targets or to deliver on a timely basis could cause customers to cancel orders and/or shift capacity to other suppliers.

Our business may suffer if we cannot compete successfully in our industry.

The worldwide semiconductor foundry industry is highly competitive. We compete with dedicated foundry service providers such as Taiwan Semiconductor Manufacturing Company Limited, Semiconductor Manufacturing International (Shanghai) Corporation and Globalfoundries Inc., as well as the foundry operation services of some integrated device manufacturers, such as IBM, Intel, Samsung Electronics, or Samsung, and Toshiba Corporation, or Toshiba. Integrated device manufacturers principally manufacture and sell their own proprietary semiconductor products, but may also offer foundry services. Other competitors such as DongbuAnam Semiconductor, Grace Semiconductor Manufacturing Corp., X-FAB Semiconductors Foundries AG and Silterra Malaysia Sdn. Bhd. have initiated efforts to expand and develop substantial additional foundry capacity. New entrants and consolidations in the foundry business, such as the acquisition of Chartered Semiconductor by Globalfoundries in 2009, are likely to initiate a trend of competitive pricing and create potential overcapacity in legacy technology. Some of our competitors have greater access to capital and substantially greater production, research and development, marketing and other resources than we do. As a result, these companies may be able to compete more aggressively over a longer period of time than we can.

The principal elements of competition in the wafer foundry market include:

technical competence;

time-to-volume production and cycle time;

time-to-market;

research and development quality;

available capacity;

manufacturing yields;

customer service and design support;

price;

management expertise; and

strategic alliances.

Our ability to compete successfully also depends on factors partially outside of our control, including product availability, intellectual property, including cell libraries that our customers embed in their product designs, and industry and general economic trends. If we cannot compete successfully in our industry, our business may suffer.

We may not succeed in our efforts to acquire operations in China.

R.O.C. law prohibits Taiwan entities from investment in mainland China-based semiconductor manufacturers without government approval. Since 2005, we have entered into several transactions to increase our ownership of Hejian Technology (Suzhou) Co., Ltd., or Hejian, a semiconductor manufacturer owning an 8-inch fab in Suzhou, China. Hejian is a fully owned subsidiary of Infoshine Technology Limited, or Infoshine, and Infoshine is a fully owned subsidiary of Best Elite International Limited, or Best Elite. For more information about the transactions with Hejian and its holding companies, Infoshine and Best Elite, please see Item 4. Information on the Company A. History and Development of the Company .

Table of Contents

As part of these transactions, we need to obtain approvals from the Investment Commission of the R.O.C. Ministry of Economic Affairs, or the R.O.C. MOEA. Investments made by R.O.C. companies in PRC companies that engage in the semiconductor foundry business are strictly regulated by the R.O.C. government. For example, the investee may only manufacture semiconductor wafers of 8 inches or smaller, and the number of total investment projects in the semiconductor foundry business undertaken by the R.O.C. companies, taken as a whole, is limited by a quota. As of March 31, 2015, our cumulative ownership in Best Elite was 86.88%. While we have received approvals of the Investment Commission, Ministry of Economic Affairs, Executive Yuan for our acquisition of Best Elite's ordinary and preferred shares as well as the technology transfer between Hejian and us, we cannot assure you that we will be able to continue to receive approvals from the R.O.C. government authorities for further acquisitions or transactions in the future.

In addition, in October 2014, our board of directors resolved to enter into a three-way agreement to establish a new company named United Semiconductor (Xiamen) Co., Ltd., or UMC (Xiamen), to be based in Xiamen, China with the Xiamen Municipal People's Government and Fujian Electronics & Information Group. While we believe that this investment will comply with R.O.C. rules and regulations, we still need to obtain the requisite approvals from the PRC and R.O.C. government authorities. Although we have obtained the relevant approvals for the initial investment of US\$710 million from the R.O.C. government on December 31, 2014, we cannot assure you that we will be able to obtain the other necessary approvals in the PRC and R.O.C. in the future. We also cannot assure you that this investment will fulfill our expectations of expanding our manufacturing scale, increasing our global foundry market share and stimulating revenue growth. If we are unable to obtain and maintain the required government approvals or achieve our business objectives with this company, our business prospects and results of operations could be materially and adversely affected. For more information about the investment, please see Item 4. Information on the Company A. History and Development of the Company .

We compete for business on a global basis, and we believe it is necessary to establish and develop operations in multiple strategic geographic regions. We cannot assure you that the mergers and acquisitions we have undertaken will be closed successfully or that they will be fully closed on the terms we proposed. The failure to close these transactions or the failure to close them on terms as favorable as we have entered into and announced may impair our ability to realize the benefits we intend to achieve and have a material and adverse effect on our operations and business.

We may not be able to implement our planned growth if we are unable to obtain the financing necessary to fund the substantial capital expenditures we expect to incur.

Our business and the nature of our industry require us to make substantial capital expenditures leading to a high level of fixed costs. The costs of facilities, tools and equipment to make semiconductors with advanced technology continue to rise, with each generation typically significantly more expensive than the larger-in-size more mature technologies which preceded. We expect to incur significant capital expenditures in connection with our growth plans. These capital expenditures will be made in advance of any additional sales to be generated by new or upgraded fabs as a result of these expenditures. Given the fixed-cost nature of our business, we have in the past incurred, and may in the future incur, operating losses if our revenues do not adequately offset our capital expenditures. Additionally, our actual expenditures may exceed our planned expenditures for a variety of reasons, including changes in:

our growth plan;

our process technology;

our research and development efforts and patent license arrangements;

market conditions;

Table of Contents

interest rates;

exchange rate fluctuations; and

prices of equipment.

We cannot assure you that additional financing will be available on satisfactory terms, if at all. If adequate funds are not available on satisfactory terms, we may be forced to curtail our expansion plans or delay the deployment of our services, which could result in a loss of customers and limit the growth of our business.

We depend on a small number of customers for a significant portion of our net operating revenues and any loss of these customers would result in significant declines in our net operating revenues.

We have been largely dependent on a small number of customers for a substantial portion of our business. In 2014, our top ten customers accounted for 54.6% of our net operating revenues. We expect that we will continue to depend upon a relatively limited number of customers for a significant portion of our net operating revenues. We cannot assure you that our net operating revenues generated from these customers, individually or in the aggregate, will reach or exceed historical levels in any future period. Loss or cancellation of business from significant changes in scheduled deliveries to, or decreases in the prices of services sold to any of these customers could significantly reduce our net operating revenues.

Our customers generally do not place purchase orders far in advance, which makes it difficult for us to predict our future revenues, adjust production costs and allocate capacity efficiently on a timely basis. In addition, due to the cyclical nature of the semiconductor industry, our customers' purchase orders have varied significantly from period to period. As a result, we do not typically operate with any significant backlog, except in periods of extreme capacity shortage such as that experienced in late 2009 and early 2010. The lack of significant backlog and the unpredictable length and timing of semiconductor cycles make it difficult for us to forecast our revenues in future periods. Moreover, our expense levels are based in part on our expectations of future revenues, and we may be unable to adjust costs in a timely manner to compensate for revenue shortfalls. We expect that in the future our net operating revenues in any quarter will continue to be substantially dependent upon purchase orders received in that quarter.

Our inability to obtain, preserve and defend intellectual property rights could harm our competitive position.

Our ability to compete successfully and achieve future growth will depend, in part, on our ability to protect our proprietary technology and to secure critical processing technology that we do not own at commercially reasonable terms. We cannot assure you that in the future we will be able to independently develop, or secure from any third party, the technology required for upgrading our production facilities or for meeting our customer needs. Our failure to successfully obtain such technology may seriously harm our competitive position.

Our ability to compete successfully also depends on our ability to operate without infringing on the proprietary rights of others. We have no means of knowing what patent applications have been filed in the United States or in certain other countries until months after they are filed. The semiconductor industry, because of the complexity of the technology used and the multitude of patents, copyrights and other overlapping intellectual property rights, is characterized by frequent litigation regarding patent, trade secret and other intellectual property rights. It is common for patent owners to assert their patents against semiconductor manufacturers. We have received from time to time communications from third parties asserting patents that cover certain of our technologies and alleging infringement of intellectual property rights of others, and we expect to continue to receive such communications in the future. See

Item 4. Information on the Company B. Business Overview Litigation for more details of our ongoing litigation. In the event any third party was to make a valid claim against us or against our customers, we could be required to:

seek to acquire licenses to the infringed technology which may not be available on commercially reasonable terms, if at all;

Table of Contents

discontinue using certain process technologies, which could cause us to stop manufacturing certain semiconductors;

pay substantial monetary damages; and/or

seek to develop non-infringing technologies, which may not be feasible.

Any one of these developments could place substantial financial and administrative burdens on us and hinder our business. Litigation, which could result in substantial expenses for us and diversion of our resources, may also be necessary to enforce our patents or other intellectual property rights or to defend us or our customers against claimed infringement of the rights of others. If we fail to obtain necessary licenses or if litigation relating to patent infringement or other intellectual property matters occurs, it could hurt our reputation as a technology leader in our industry and prevent us from manufacturing particular products or applying particular technologies, which could reduce opportunities to generate revenues.

Our operations and business will suffer if we lose one or more of our key personnel without adequate replacements.

Our future success to a large extent depends on the continued services of our Chairman and key executive officers. We do not carry key person insurance on any of our personnel. If we lose the services of any of our Chairman or key executive officers, it could be difficult to find and integrate replacement personnel in a short period of time, which could harm our operations and the growth of our business.

We may have difficulty attracting and retaining skilled employees, who are critical to our future success.

The success of our business depends upon attracting and retaining experienced executives, engineers and other employees to implement our strategy. The competition for skilled employees is intense. We expect demand for personnel in Taiwan to increase in the future as new wafer fabrication facilities and other businesses are established in Taiwan. We also expect demand for experienced personnel in other locations to increase significantly as our competitors establish and expand their operations. Some of our competitors are willing to offer better compensation than that we do to our executives, engineers and other employees. We do not have long-term employment contracts with any of our employees. If we were unable to retain our existing personnel or attract, assimilate and recruit new experienced personnel in the future, it could seriously disrupt our operations and delay or restrict the growth of our business.

Our transactions with affiliates and stockholders may hurt our profitability and competitive position.

We have provided foundry services to several of our affiliates and stockholders. These transactions were conducted on an arm's length basis. We currently do not provide any preferential treatment to any of these affiliates and stockholders. However, we may in the future reserve or allocate our production capacity to these companies if there is a shortage of foundry services in the market to enable these companies to maintain their operations and/or to protect our investments in them. This reservation or allocation may reduce our capacity available for our other customers, which may damage our relationships with other customers and discourage them from using our services. This may hurt our profitability and competitive position.

The trend of adopting protectionist measures in certain countries, including the United States, could have a material adverse impact on our results of operations and financial condition.

Governments in the United States, China and certain other countries have implemented fiscal and monetary programs to stimulate economic growth as a result of the recent economic downturn, and many of these programs include protectionist measures that encourage the use of domestic products and labor. Recent policy developments by the governments in China and elsewhere also suggest an increased unwillingness to allow international companies to invest in or acquire local businesses. Since many of our direct customers and other downstream customers in the supply chain are located in or have operations in the countries where protectionist measures were adopted, such protectionist measures may have a material adverse effect on demand for our manufacturing services.

Table of Contents

Any future outbreak of contagious diseases may materially and adversely affect our business and operations, as well as our financial condition and results of operations.

Any future outbreak of contagious diseases, such as avian or swine influenza or severe acute respiratory syndrome, may disrupt our ability to adequately staff our business and may generally disrupt our operations. If any of our employees is suspected of having contracted any contagious disease, we may under certain circumstances be required to quarantine such employees and the affected areas of our premises. Therefore, we may have to temporarily suspend part of or all of our operations. Furthermore, any future outbreak may restrict the level of economic activities in affected regions, including Taiwan, and affect the willingness and ability of our employees and customers to travel, which may also adversely affect our business and prospects. As a result, we cannot assure you that any future outbreak of contagious diseases would not have a material adverse effect on our financial condition and results of operations.

Currency fluctuations could increase our costs relative to our revenues, which could adversely affect our profitability.

More than half of our net operating revenues are denominated in currencies other than New Taiwan dollars, primarily in U.S. dollars. On the other hand, more than half of our costs of direct labor, raw materials and overhead are incurred in New Taiwan dollars. Although we hedge a portion of the resulting net foreign exchange position through the use of foreign exchange spot transactions, or currency forward contracts, we are still affected by fluctuations in foreign exchange rates among the U.S. dollar, the New Taiwan dollar and other currencies. Any significant fluctuation in exchange rates may impact on our financial condition and the U.S. dollar value of the ADSs and the U.S. dollar value of any cash dividends we distributed, which could have a corresponding effect on the market price of the ADSs.

Risks Relating to Manufacturing

Our manufacturing processes are highly complex, costly and potentially vulnerable to impurities and other disruptions that can significantly increase our costs and delay product shipments to our customers.

Our manufacturing processes are highly complex, require advanced and costly equipment and are continuously being modified to improve manufacturing yields and product performance. Impurities or other difficulties in the manufacturing process or defects with respect to equipment or supporting facilities can lower manufacturing yields, interrupt production or result in losses of products in process. As system complexity has increased and process technology has become more advanced, manufacturing tolerances have been reduced and requirements for precision have become even more demanding. Although we have been enhancing our manufacturing capabilities and efficiency, from time to time we have experienced production difficulties that have caused delivery delays and quality control problems, as is common in the semiconductor industry. In the past we have encountered the following problems:

capacity constraints due to changes in product mix or the delayed delivery of equipment critical to our production, including scanners, steppers and chemical stations;

construction delays during expansions of our clean rooms and other facilities;

difficulties in upgrading or expanding existing facilities;

manufacturing execution system or automatic transportation system failure;

unexpected breakdowns in our manufacturing equipment and/or related facilities;

changing or upgrading our process technologies;

raw materials shortages and impurities; and

delays in delivery and shortages of spare parts and in maintenance for our equipment and tools.

Table of Contents

Should these problems repeat, we may suffer delays in delivery and/or loss of business and revenues. In addition, we cannot guarantee that we will be able to increase our manufacturing capacity and efficiency in the future to the same extent as in the past.

Our profit margin may substantially decline if we are unable to continuously improve our manufacturing yields, maintain high capacity utilization and optimize the technology mix of our silicon wafer production.

Our ability to maintain our profitability depends, in part, on our ability to:

maintain high capacity utilization, which is defined as the ratio of the wafer-out quantity of 8-inch wafer equivalents divided by our estimated total 8-inch equivalent capacity in a specified period. The estimated capacity figures may vary depending upon equipment delivery schedules, pace of migration to more advanced processing technologies and other factors affecting production ramp-ups;

maintain or improve our manufacturing yields, which is defined as the percentage of usable devices manufactured on a wafer; and

optimize the technology mix of our production by increasing the number of wafers manufactured by utilizing different processing technologies.

Our manufacturing yields directly affect our ability to attract and retain customers, as well as the price of our services. Our capacity utilization affects our operating results because a large percentage of our operating costs are fixed. Our technology mix affects utilization of our equipment and process technologies, as well as the prices we can charge, either of which can affect our margins. If we are unable to continuously improve our manufacturing yields, maintain high capacity utilization or optimize the technology mix of our wafer production, our profit margin may substantially decline.

We may have difficulty in ramping up production in accordance with our schedule, which could cause delays in product deliveries and decreases in manufacturing yields.

As is common in the semiconductor industry, we have from time to time experienced difficulties in ramping up production at new or existing facilities or effecting transitions to new manufacturing processes. As a result, we have suffered delays in product deliveries or reduced manufacturing yields. We may encounter similar difficulties in connection with:

the migration to more advanced process technologies, such as 45/40 and 28-nanometer and more advanced process technology;

the joint development with vendors for more powerful tools (both in production and inspection) needed in the future to meet advanced process technology requirements; and

the adoption of new materials in our manufacturing processes.

We may face construction delays, interruptions, infrastructure failure and delays in upgrading or expanding existing facilities, or changing our process technologies, any of which might adversely affect our production schedule. Our failure to achieve our production schedule could delay the time required to recover our investments and seriously affect our profitability.

Our production schedules could be delayed and we may lose customers if we are unable to obtain raw materials and equipment in a timely manner.

We depend on our suppliers for raw materials. To maintain competitive manufacturing operations, we must obtain from our suppliers, in a timely manner, sufficient quantities of quality materials at acceptable prices. Although we source our raw materials from several suppliers, a small number of these suppliers account for a substantial amount of our supply of raw materials because of the consistent quality of their products. For example, in 2013 and 2014, we purchased a majority of our silicon wafers from four makers, Shin-Etsu Handotai Corporation, or Shin-Etsu, Siltronic AG, SunEdison Corporation and Sumco Group (including Sumco Corporation and Formosa Sumco Technology Corporation). We may have long-term contracts with most of our suppliers if necessary. From time to time, our suppliers have extended lead time or limited the supply of required materials to us because of capacity constraints. Consequently, from time to time, we have experienced difficulty in obtaining the quantities of raw materials we need on a timely basis.

Table of Contents

In addition, from time to time we may reject materials that do not meet our specifications, resulting in declines in output or manufacturing yields. We cannot assure you that we will be able to obtain sufficient quantities of raw materials and other supplies in a timely manner. If the supply of materials is substantially diminished or if there are significant increases in the costs of raw materials, we may be forced to incur additional costs to acquire sufficient quantities of raw materials to sustain our operations, which may increase our marginal costs and reduce profitability.

We also depend on a limited number of manufacturers and vendors that make and maintain the complex equipment we use in our manufacturing processes. We also rely on these manufacturers and vendors to improve our technology to meet our customers' demands as technology improves. In periods of unpredictable and highly diversified market demand, the lead time from order to delivery of this equipment can be as long as six to twelve months. If there are delays in the delivery of equipment or in the availability or performance of necessary maintenance, or if there are increases in the cost of equipment, it could cause us to delay our introduction of new manufacturing capacity or technologies and delay product deliveries, which may result in the loss of customers and revenues.

We may be subject to the risk of loss due to fire because the materials we use in our manufacturing processes are highly flammable.

We use highly flammable materials such as silane and hydrogen in our manufacturing processes and may therefore be subject to the risk of loss arising from fires. The risk of fire associated with these materials cannot be completely eliminated. We maintain insurance policies to reduce losses caused by fire, including business interruption insurance. While we believe that our insurance coverage for damage to our property and business interruption due to fire is consistent with semiconductor industry practice, our insurance coverage is subject to deductibles and self-insured retention and may not be sufficient to cover all of our potential losses. If any of our fabs were to be damaged or cease operations as a result of a fire, it would temporarily reduce manufacturing capacity and reduce revenues.

We and many of our customers and suppliers are vulnerable to natural disasters and other events outside of our control, which may seriously disrupt our operations.

Most of our assets and many of our customers and suppliers are located in certain parts of Taiwan. Our operations and the operations of our customers and suppliers are vulnerable to earthquakes, floods, droughts, power losses and similar events that affect the locations of our operations. The occurrence of any of these events could interrupt our services and cause severe damages to wafers in process, or cause significant business interruptions. Although we maintain property damage and business interruption insurance for such risks, there is no guarantee that future damages or business loss from earthquakes will be covered by such insurance, that we will be able to collect from our insurance carriers, should we choose to claim under our insurance policies, or that such coverage will be sufficient. In addition, our manufacturing facilities have occasionally experienced insufficient power supplies, and our operations have been disrupted.

Our operations may be delayed or interrupted and our business could suffer if we violate environmental, safety and health, or ESH, regulations.

The semiconductor manufacturing process requires the use of various gases, chemicals, hazardous materials and other substances such as solvents and sulfuric acid which may have an impact on the environment. We are always subject to ESH regulations, and a failure to manage the use, storage, transportation, emission, discharge, recycling or disposal of raw materials or to comply with these ESH regulations could result in (i) regulatory penalties, fines and other legal liabilities, (ii) suspension of production or delays in operation and capacity expansion, (iii) a decrease in our sales, (iv) an increase in pollution cleaning fees and other operation costs, or (v) damage to our public image, any of which could harm our business. In addition, as ESH regulations are becoming more comprehensive and stringent, we may

incur a greater amount of capital expenditures in technology innovation and materials substitution in order to comply with such regulations, which may adversely affect our results of operations.

Table of Contents

Climate change may negatively affect our business.

There is increasing concern that climate change is occurring and may have dramatic effects on human activity without aggressive remediation steps. A modest change in temperature would result in increased coastal flooding, changing precipitation patterns and increasing risk of extinction for the world's species. Public expectations for reductions in greenhouse gas emissions could result in increased energy, transportation and raw material costs.

Scientific examination of, political attention to and rules and regulations on issues surrounding the existence and extent of climate change may result in an increase in the cost of production due to increase in the prices of energy and introduction of energy or carbon tax. Various regulatory developments have been introduced that focus on restricting or managing emissions of carbon dioxide, methane and other greenhouse gases. Enterprises may need to purchase at higher costs emission credits, new equipment or raw materials with lower carbon footprints. These developments and further legislation that is likely to be enacted could affect our operations negatively. Changes in environmental regulations, such those on the use of perfluorinated compounds, could increase our production costs, which could adversely affect our results of operation and financial condition.

In addition, more frequent droughts and floods, extreme weather conditions and rising sea levels could occur due to climate change. The impact of such changes could be significant as most of our factories are located in islands including Taiwan and Singapore. For example, transportation suspension caused by extreme weather conditions could harm the distribution of our products. Similarly, our operations depend upon adequate supplies of water, and extended or serious droughts may affect our ability to obtain adequate supplies of water and threaten our production. We cannot predict the economic impact, if any, of disasters or climate change.

Disruptions in the international trading environment may seriously decrease our international sales.

A substantial portion of our net operating revenues is derived from sales to customers located in countries other than the countries where our fabs are located. In 2012, we operated fabs in Taiwan, Singapore and Japan. In 2013, we operated fabs in Taiwan, Singapore, Japan and China. In 2014, we operated fabs in Taiwan, Singapore and China. For the years ended December 31, 2012, 2013 and 2014, we generated approximately 33.4%, 30.1% and 42.6% of our net operating revenues, respectively, from other than the countries where our fabs are located. We expect sales to customers from countries outside of Taiwan, Singapore and China will continue to represent a significant portion of our net operating revenues. The success and profitability of our international activities depend on certain factors beyond our control, such as general economic conditions, labor conditions, political stability, tax laws, import duties and foreign exchange controls of the countries in which we sell our products, and the political and economic relationships between these countries. As a result, our manufacturing services will continue to be vulnerable to disruptions in the international trading environment, including adverse changes in foreign government regulations, political unrest and international economic downturns.

These disruptions in the international trading environment affect the demand for our manufacturing services and change the terms upon which we provide our manufacturing services overseas, which could seriously decrease our international sales.

Table of Contents**Political, Economic and Regulatory Risks**

We face substantial political risks associated with doing business in Taiwan, particularly due to the tense relationship between the R.O.C. and the People's Republic of China, or the PRC, that could negatively affect the value of your investment.

Our principal executive offices and most of our assets and operations are located in Taiwan. Accordingly, our business, financial condition and results of operations and the market price of our common shares and the ADSs may be affected by changes in R.O.C. governmental policies, taxation, inflation or interest rates and by social instability and diplomatic and social developments in or affecting Taiwan which are outside of our control. Taiwan has a unique international political status. Since 1949, Taiwan and the Chinese mainland have been separately governed. The PRC claims that it is the sole government in China and that Taiwan is part of China. Although significant economic and cultural relations have been established between the R.O.C. and the PRC in the past few years, such as the adoption of the Economic Cooperation Framework Agreement and memorandum regarding cross-strait financial supervision, we cannot assure you that relations between the R.O.C. and PRC will not become strained again. For example, the PRC government has refused to renounce the use of military force to gain control over Taiwan and, in March 2005, passed an Anti-Secession Law that authorized non-peaceful means and other necessary measures should Taiwan move to gain independence from the PRC. Past developments in relations between the R.O.C. and the PRC have on occasions depressed the market prices of the securities of companies in the R.O.C. Such initiatives and actions are commonly viewed as having a detrimental effect to reunification efforts between the R.O.C. and the PRC. Relations between the R.O.C. and the PRC and other factors affecting military, political or economic conditions in Taiwan could materially and adversely affect our financial condition and results of operations, as well as the market price and the liquidity of our securities.

Our business depends on the support of the R.O.C. government, and a decrease in this support may increase our labor costs and decrease our income after tax.

The R.O.C. government has been very supportive of technology companies. For instance, the R.O.C.'s labor laws and regulations permit employees of semiconductor companies to work shifts of 10 hours each day on a two-days-on, two-days-off basis and do not require these employees to be unionized. We cannot assure you, however, that these labor laws and regulations will not be changed in the future. In the event that the R.O.C. government requires our employees to be unionized or decreases the number of hours our employees may work in a given day, our labor costs may increase significantly which could result in lower margins.

We, like many R.O.C. technology companies, have benefited from substantial tax incentives provided by the R.O.C. government. Among the incentives broadly enjoyed by R.O.C. technology companies, various tax benefits granted under Chapter 2 and Article 70-1 of the Statute for Upgrading Industries expired on December 31, 2009. Despite the fact that we can still enjoy the tax holidays for the relevant investment plans approved by R.O.C. tax authority before the expiration of the Statute for Upgrading Industries which is currently expected to expire in 2020, if more incentives are curtailed or eliminated, our net income may decrease significantly.

Our future tax obligations may adversely affect our profitability.

The R.O.C. government enacted the R.O.C. Income Basic Tax Act, also known as the Alternative Minimum Tax Act, or the AMT Act, which became effective on January 1, 2006 to impose an alternative minimum tax and to remedy the currently excessive tax incentives for individuals and businesses. AMT is a supplemental tax which is payable if the income tax payable pursuant to the R.O.C. Income Tax Act is below the minimum amount prescribed under the AMT Act. For the purpose of calculating the AMT, the taxable income defined under the AMT Act includes most income

that is exempted from income tax under various legislations, such as those providing tax holidays and investment tax credits.

For businesses, the income that previously enjoyed tax-exemption privileges under relevant tax regulations, such as Act for the Establishment and Administration of the Science Parks and Statute for Upgrading Industries, will be subject to the AMT system for the calculation of business taxpayers' aggregate incomes. The AMT rate for business entities was 10% prior to 2013 and has increased to 12% since 2013. Under the AMT Act, a company will be subject to a 12% AMT if its annual taxable income under the Statute exceeds NT\$0.5 million. However, the AMT Act grandfathered certain tax exemptions granted prior to the enactment of the AMT. For example, businesses who already qualified for five-year tax holidays and obtained the applicable permission issued by the competent authority before December 31, 2005 may continue to enjoy such tax incentives, and the income exempted thereunder will not to be added to the taxable income for calculating the AMT, so long as the construction of their investment projects breaks ground within one year from January 1, 2006 and was completed within three years from the day immediately following their receipts of the applicable permission issued by the competent authority. As the tax exemption periods expire or in the event of an increase in other taxable income subject to the AMT Act, it may adversely impact our net income after tax.

Table of Contents

Compliance with laws such as the US Conflict Minerals Law may affect our ability or the ability of our suppliers to purchase raw materials at an effective cost.

Many industries rely on materials which are subject to regulations concerning certain minerals sourced from the Democratic Republic of Congo, or the DRC, or adjoining countries, including: Sudan; Uganda; Rwanda; Burundi; United Republic of Tanzania; Zambia; Angola; Congo; and Central African Republic. These minerals are commonly referred to as conflict minerals. Conflict minerals which may be used in our industry or by our suppliers include Columbite-tantalite (derivative of tantalum [Ta]), Cassiterite (derivative of tin [Sn]), gold [Au], Wolframite (derivative of tungsten [W]), and Cobalt [Co]. Under present U.S. regulations, we and our customers are required to survey and disclose whether our processes or products use or rely on conflict materials. On August 22, 2012, the U.S. SEC adopted the final rule for disclosing the use of conflict minerals that require companies similar to us to make a report in a type and format similar to Form D to disclose the use of conflict materials on an annual basis on or prior to May 31 each year. In order to comply with the aforementioned rules and regulations promulgated by the U.S. SEC, we will continue to verify the relevant information with our vendors and file the required report. Although we expect that we and our vendors will be able to comply with the requirements of the US Conflict Minerals law and any new related regulations promulgated by the U.S. SEC, we cannot assure you that we will be able to gather all the information required to comply with such regulations. While we believe our suppliers do not rely on such conflict materials, we cannot assure you that we will continue to be able to obtain adequate supplies of materials needed in our production from supply chains outside the DRC and adjoining countries. The failure to obtain necessary information or to maintain adequate supplies of materials from supply chains outside the DRC and adjoining countries may delay our production, increasing the risk of losing customers and business.

Similarly, many jurisdictions have promulgated regulations with the intention to deter disregard and contempt for human rights within supply chains. Although our own operations comply with the relevant requirements under the laws of the jurisdictions where we have operations, possible violation by our suppliers may not be known to us and beyond our control. While we believe our suppliers comply with applicable human rights requirements, there can be no guarantee that they will continue to do so, or that we will be able to obtain the necessary information on their activities to comply with whatever future requirements may be enacted.

Data security and data privacy considerations and regulations may adversely affect our operations.

Our operations depend upon reliable and uninterrupted information technology services, including the integrity of our web-based and electronic customer service systems. Although we have put in place what we believe are reasonable precautions to prevent accidental and/or malicious disruption of these services, there can be no assurance that our preventive measures will preclude failure of the information technology, web-based and electronic customer service systems upon which our business depends. Disruption of these systems could adversely affect our ability to manufacture and to serve our customers.

In addition, in the course of our operations, we receive confidential information from and about our customers, vendors, partners and employees. Although we take what we believe are reasonable precautions to protect such information from disclosure to or interruption, there are no guarantees our precautions will prevent accidental or malicious access to such information. In the event of such access, our reputation could be adversely affected, customers and others may hesitate to entrust us with their confidential information, which would negatively affect our operations, and we would incur costs to remedy the breach.

Moreover, many jurisdictions have proposed regulations concerning data privacy. Although we have taken measures to comply with existing law and regulations in this regard, future laws may impose requirements that make our operations more expensive and/or less efficient. In addition, should we experience a breakdown in our systems or

failure in our precautions that results in a violation of such regulations, we may suffer adverse customer reaction and face governmental penalties.

Table of Contents

Risks Related to the Common Shares and ADSs and Our Trading Markets

Restrictions on the ability to deposit common shares into our ADS program may adversely affect the liquidity and price of the ADSs.

The ability to deposit common shares into our ADS program is restricted by R.O.C. law. Under current R.O.C. law, no person or entity, including you and us, may deposit common shares into our ADS program without specific approval of the R.O.C. FSC except for the deposit of the common shares into our ADS program and for the issuance of additional ADSs in connection with:

- (1) distribution of share dividends or free distribution of our common shares;
- (2) exercise of the preemptive rights of ADS holders applicable to the common shares evidenced by ADSs in the event of capital increases for cash; or
- (3) delivery of our common shares which are purchased in the domestic market in Taiwan directly by the investor or through the depository or are already in the possession of the investor to the custodian for deposit into our ADS program, subject to the following conditions: (a) the re-issuance is permitted under the deposit agreement and custody agreement, (b) the depository may accept deposit of those common shares and issue the corresponding number of ADSs with regard to such deposit only if the total number of ADSs outstanding after the issuance does not exceed the number of ADSs previously approved by the R.O.C. FSC, plus any ADSs issued pursuant to the events described in (1) and (2) above and (c) this deposit may only be made to the extent previously issued ADSs have been withdrawn.

As a result of the limited ability to deposit common shares into our ADS program, the prevailing market price of our ADSs on the NYSE may differ from the prevailing market price of the equivalent number of our common shares on the Taiwan Stock Exchange.

Holders of our ADSs will not have the same proposal or voting rights as the holders of our common shares, which may affect the value of your investment.

Except for treasury common shares and common shares held by our subsidiaries which meet certain criteria provided under the R.O.C. Company Act, each common share is generally entitled to one vote and no voting discount will be applied. However, except as described in this annual report and in the deposit agreement, holders of our ADSs will not be able to exercise voting rights attached to the common shares evidenced by our ADSs on an individual basis. Holders of our ADSs will appoint the depository or its nominee as their representative to exercise the voting rights attached to the common shares represented by the ADSs. The voting rights attached to the common shares evidenced by our ADSs must be exercised as to all matters brought to a vote of stockholders collectively in the same manner.

Moreover, holders of the ADSs do not have individual rights to propose any matter for stockholders' votes at our stockholders' meetings. However, holders of at least 51% of the ADS outstanding at the relevant record date may request the depository to submit to us one proposal per year for consideration at our annual ordinary stockholders meeting, provided that such proposal meets certain submission criteria and limitations, including the language and the length of the proposal, the time of submission, the required certification or undertakings, and the attendance at the annual ordinary stockholders' meeting. A qualified proposal so submitted by the depository will still be subject to

review by our board of directors and there is no assurance that the proposal will be accepted by our board of directors for inclusion in the agenda of our annual ordinary stockholders meeting. Furthermore, if we determine, at our discretion, that the proposal submitted by the depositary does not qualify, we have no obligation to notify the depositary or to allow the depositary to modify such proposal.

Table of Contents

Furthermore, if holders of at least 51% of the ADSs outstanding at the relevant record date instruct the depositary to vote in the same manner regarding a resolution, including election of directors, the depositary will appoint our Chairman, or his designee, to represent the ADS holders at the stockholders' meetings and to vote the common shares represented by the ADSs outstanding in the manner so instructed. If by the relevant record date the depositary has not received instructions from holders of ADSs holding at least 51% of the ADSs to vote in the same manner for any resolution, then the holders will be deemed to have instructed the depositary to authorize and appoint our Chairman, or his designee, to vote all the common shares represented by ADSs at his sole discretion, which may not be in your interest.

The rights of holders of our ADSs to participate in our rights offerings may be limited, which may cause dilution to their holdings.

We may from time to time distribute rights to our stockholders, including rights to acquire our securities. Under the deposit agreement, the depositary will not offer those rights to ADS holders unless both the rights and the underlying securities to be distributed to ADS holders are either registered under the Securities Act or exempt from registration under the Securities Act. We are under no obligation to file a registration statement with respect to any such rights or underlying securities or to endeavor to cause such a registration statement to be declared effective. Accordingly, holders of our ADSs may be unable to participate in our rights offerings and may experience dilution in their holdings.

Changes in exchange controls that restrict your ability to convert proceeds received from your ownership of ADSs may have an adverse effect on the value of your investment.

Your ability to convert proceeds received from your ownership of ADSs depends on existing and future exchange control regulations of the Republic of China. Under the current laws of the Republic of China, an ADS holder or the depositary, without obtaining further approvals from the R.O.C. Central Bank of China, or the CBC, or any other governmental authority or agency of the Republic of China, may convert NT dollars into other currencies, including U.S. dollars, in respect of:

the proceeds of the sale of common shares represented by ADSs or received as share dividends with respect to the common shares and deposited into the depositary receipt facility; and

any cash dividends or distributions received from the common shares represented by ADSs.

In addition, the depositary may also convert into NT dollars incoming payments for purchases of common shares for deposit in the depositary receipt facility against the creation of additional ADSs. If you withdraw the common shares underlying your ADSs and become a holder of our common shares, you may convert into NT dollars subscription payments for rights offerings. The depositary may be required to obtain foreign exchange approval from the CBC on a payment-by-payment basis for conversion from NT dollars into foreign currencies of the proceeds from the sale of subscription rights of new common shares. Although it is expected that the CBC will grant approval as a routine matter, required approvals may not be obtained in a timely manner, or at all.

Under the Republic of China Foreign Exchange Control Law, the Executive Yuan of the Republic of China may, without prior notice but subject to subsequent legislative approval, impose foreign exchange controls or other restrictions in the event of, among other things, a material change in international economic conditions.

Our public stockholders may have more difficulty protecting their interests than they would as stockholders of a U.S. corporation.

Our corporate affairs are governed by our articles of incorporation and by laws governing R.O.C. corporations. The rights of our stockholders to bring stockholders suits against us or our board of directors under R.O.C. law are much more limited than those of the stockholders of U.S. corporations. Therefore, our public stockholders may have more difficulty protecting their interests in connection with actions taken by our management, members of our board of directors or controlling stockholders than they would as stockholders of a U.S. corporation. Please refer to Item 10. Additional Information B. Memorandum and Articles of Association Rights to Bring Stockholders Suits included elsewhere in this annual report for a detailed discussion of the rights of our stockholders to bring legal actions against us or our directors under R.O.C. law.

Table of Contents

Holders of our ADSs will be required to appoint several local agents in Taiwan if they withdraw common shares from our ADS program and become our stockholders, which may make ownership burdensome.

Non-R.O.C. persons wishing to withdraw common shares represented by their ADSs from our ADS program and hold our common shares represented by those ADSs are required to, among other things, appoint a local agent or representative with qualifications set forth by the applicable R.O.C. laws and regulations to open a securities trading account with a local brokerage firm, pay R.O.C. taxes, remit funds and exercise stockholders' rights. In addition, the withdrawing holders are also required to appoint a custodian bank or a securities firm with qualifications set forth by the R.O.C. FSC to hold the securities in safekeeping, make confirmations, settle trades and report all relevant information, in which the securities firm is appointed as the custodian, the payments shall be held in safekeeping in a special account opened in a bank approved by the R.O.C. FSC. Without making this appointment and opening of the accounts, the withdrawing holders would not be able to subsequently sell our common shares withdrawn from a depository receipt facility on the Taiwan Stock Exchange. Under R.O.C. law and regulations, except under limited circumstances, PRC persons are not permitted to withdraw the common shares underlying the ADSs or to register as a stockholder of our company. Under the Regulations Governing Securities Investment and Futures Trading in Taiwan by Mainland Area Investors promulgated by the R.O.C. Executive Yuan on April 30, 2009, as amended, only qualified domestic institutional investors, or QDIIs and limited entities or individuals, are permitted to withdraw the common shares underlying the ADSs, subject to compliance with the withdrawal relevant requirements, and only QDIIs, and limited entities or individuals who meet the qualification requirements set forth therein are permitted to own common shares of an R.O.C. company listed for trading on the Taiwan Stock Exchange or the GreTai Securities Market, provided that among other restrictions generally applicable to investments made by PRC persons, their shareholdings are subject to certain restrictions as set forth in the abovementioned regulations and that such mainland area investors shall apply for a separate approval if their investment, individually or in aggregate, amounts to or exceeds 10 percent of the common shares of any R.O.C. listing company.

You may not be able to enforce a judgment of a foreign court in the R.O.C.

We are a company limited by shares incorporated under the R.O.C. Company Act. Most of our assets and most of our directors, executive officers and experts named in the registration statement are located in Taiwan. As a result, it may be difficult for you to enforce judgments obtained outside Taiwan upon us or such persons in Taiwan. We have been advised by our R.O.C. counsel that any judgment obtained against us in any court outside the R.O.C. arising out of or relating to the ADSs will not be enforced by R.O.C. courts if any of the following situations shall apply to such final judgment:

the court rendering the judgment does not have jurisdiction over the subject matter according to R.O.C. law;

the judgment or the court procedure resulting in the judgment is contrary to the public order or good morals of the R.O.C.;

the judgment was rendered by default, except where the summons or order necessary for the commencement of the action was legally served on us within the jurisdiction of the court rendering the judgment within a reasonable period of time or with judicial assistance of the R.O.C.; or

judgments of the R.O.C. courts are not recognized in the jurisdiction of the court rendering the judgment on a reciprocal basis.

Table of Contents

We may be considered a passive foreign investment company, which could result in adverse U.S. tax consequences for U.S. investors.

We do not believe that we were a passive foreign investment company, or PFIC, for 2014 and we do not expect to become one in the future, although there can be no assurance in this regard. Based upon the nature of our business activities, we may be classified as a passive foreign investment company for U.S. federal income tax purposes. Such characterization could result in adverse U.S. tax consequences to you if you are a U.S. investor.

For example, if we are a PFIC, our U.S. investors may become subject to increased tax liabilities under U.S. tax laws and regulations and will become subject to burdensome reporting requirements. The determination of whether or not we are a PFIC is made on an annual basis and will depend on the composition of our income and assets from time to time. Specifically, for any taxable year we will be classified as a PFIC for U.S. tax purposes if either (i) 75% or more of our gross income in a taxable year is passive income or (ii) the average percentage of our assets (which includes cash) by value in a taxable year which produce or are held for the production of passive income is at least 50%. The calculation of the value of our assets will be based, in part, on the quarterly market value of common shares and ADSs, which is subject to change. In addition, the composition of our income and assets will be affected by how, and how quickly, we spend the cash we have raised in prior offerings. See Taxation U.S. Federal Income Tax Considerations For U.S. Persons Passive Foreign Investment Company.

The trading price of the common shares and ADSs may be adversely affected by the general activities of the Taiwan Stock Exchange and U.S. stock exchanges, the trading price of our common shares, increases in interest rates and the economic performance of Taiwan.

Our common shares are listed on the Taiwan Stock Exchange. The trading price of our ADSs may be affected by the trading price of our common shares on the Taiwan Stock Exchange and the economic performance of Taiwan. The Taiwan Stock Exchange is smaller and, as a market, more volatile than the securities markets in the United States and some European countries. The Taiwan Stock Exchange has experienced substantial fluctuations in the prices and volumes of sales of listed securities, and there are currently limits on the range of daily price movements on the Taiwan Stock Exchange. The Taiwan Stock Exchange is particularly volatile during times of political instability, such as when the relationship between Taiwan and the PRC becomes tense. Moreover, the Taiwan Stock Exchange has experienced disturbance caused by market manipulation, insider trading and payment defaults, and the government of Taiwan has from time to time intervened in the stock market by purchasing stocks listed on the Taiwan Stock Exchange. The recurrence of these or similar events could deteriorate the price and liquidity of our common shares and ADSs.

The market price of the ADSs may also be affected by general trading activities on the U.S. stock exchanges, which recently have experienced significant volatility with respect to trading prices of technology companies. Fluctuation in interest rates and other general economic conditions may also influence the market price of the ADSs.

ITEM 4. INFORMATION ON THE COMPANY

A. History and Development of the Company

Our legal and commercial name is United Microelectronics Corporation, commonly known as UMC. We were incorporated under the R.O.C. Company Law as a company limited by shares in May 1980 and our common shares were listed on the Taiwan Stock Exchange in 1985. Our principal executive office is located at No. 3 Li-Hsin Road II,

Hsinchu Science Park, Hsinchu, Taiwan, Republic of China, and our telephone number is 886-3-578-2258. Our Internet website address is www.umc.com. The information on our website does not form part of this annual report. Our ADSs have been listed on the NYSE under the symbol UMC since September 19, 2000.

We are one of the world's largest independent semiconductor foundries and a leader in semiconductor manufacturing process technologies. Our primary business is the manufacture, or fabrication, of semiconductors, sometimes called chips or integrated circuits, for others. Using our own proprietary processes and techniques, we make chips to the design specifications of our many customers. Our company maintains a diversified customer base across industries, including communication, consumer electronics, computer, and others, while continuing to focus on manufacturing for high growth, large volume applications, including networking, telecommunications, internet, multimedia, PCs and graphics. We sell and market mainly wafers which in turn are used in a number of different applications by our customers. Percentages of our gross wafer sales derived from our products used in communication devices, consumer electronics, computer and other applications were 50.6%, 28.8%, 16.3% and 4.3%, respectively, in 2014.

Table of Contents

We focus on the development of leading mass-producible manufacturing process technologies. We were among the first in the foundry industry to go into commercial operation with such advanced capabilities as producing integrated circuits with line widths of 0.25, 0.18, 0.15, 0.13 micron and 90, 65, 45/40, 28, 14 and 10 nanometer. Advanced technologies have enabled electronic products, especially in relation to communication, consumer and computer products, to integrate their functions in new and innovative methods. Networking capabilities have allowed electronic products such as computers, tablets, cell phones, televisions, PDAs, CD-ROMs and digital cameras to communicate with each other to exchange information. More powerful semiconductors are required to drive multimedia functions (e.g., processing visual data) and to resolve network bandwidth issues. At the same time, the trend toward personal electronic devices has resulted in products that are becoming physically smaller and consume less power. Process technology must also shrink the volumes of products aggressively to cater to this trend of integrating multiple functions, reducing the size of components needed for operation and lowering IC power consumption. Dedicated semiconductor foundries need to achieve this process improvement and at the same time develop multiple process technologies to satisfy the varying needs of communication, consumer and computer products. We believe our superior process technologies will enable us to continue to offer our customers significant performance benefits for their products, faster time-to-market production, cost savings and other competitive advantages.

We provide high quality service based on our performance. In today's marketplace, we believe it is important to make available not only the most manufacturable processes, but also the best solutions to enable customers to design integrated circuits that include entire systems on a chip. Through these efforts, we intend to be the foundry solution for SoC customer needs. To achieve this goal, we believe it is necessary to timely develop and offer the intellectual property and design support that customers need to ensure their specific design blocks work with the other design blocks of the integrated circuit system in the manner intended. Accordingly, we have a dedicated intellectual property and design support team which focuses on timely development of the intellectual property and process specific design blocks our customers need in order to develop products that operate and perform as intended. Our design service team actively cooperates with our customers and vendors of cell libraries and intellectual property offerings to identify, early in the product/market cycle, the offerings needed to ensure that these coordinated offerings are available to our customers in silicon verified form in a streamlined and easy-to-use manner. As a result, we are able to ensure the timely delivery of service offerings from the earliest time in the customer design cycle, resulting in a shorter time-to-volume production. We also provide our customers with real-time online access to their confidential production data, resulting in superior communication and efficiency. We further address our customers' needs using our advanced technology and proven methodology to achieve fast cycle time, high yield, production flexibility and close customer communication. For example, we select and configure our clean rooms and equipment and develop our processes to maximize the flexibility in meeting and adapting to rapidly changing customer and industry needs. As a result, our cycle time, or the period from customer order to wafer delivery, and our responsiveness to customer request changes are among the fastest in the dedicated foundry industry. We also provide high quality service and engineering infrastructure.

Our production capacity is comparable to that of certain largest companies in the semiconductor industry, and we believe our leading edge and high volume capability is a major competitive advantage.

Our technology and service have attracted two principal types of foundry industry customers: fabless design companies and integrated device manufacturers. Fabless design companies design, develop and distribute proprietary semiconductor products but do not maintain internal manufacturing capacity. Instead, these companies depend on outside manufacturing sources. Integrated device manufacturers, in contrast, traditionally have integrated internally all functions manufacturing as well as design, development, sales and distribution.

Our primary customers, in terms of our sales revenues, include premier integrated device manufacturers, such as Texas Instruments, Intel Mobile and STMicroelectronics, and leading fabless design companies, such as Xilinx,

Broadcom, MediaTek, Realtek and Novatek. In 2014, our company's top ten customers accounted for 54.6% of our net operating revenues. We believe our success in attracting these customers is a direct result of our commitment to high quality service and our intense focus on customer needs and performance.

Table of Contents

In addition to our semiconductor foundry business, we also established UMC New Business Investment Corporation to focus on investments in the solar energy and LED industries.

On March 16, 2011, our board of directors proposed an offer to the stockholders of Best Elite International Limited, a British Virgin Islands corporation, or Best Elite, to acquire up to an additional 30% equity interest of Best Elite. Hejian is a wholly owned subsidiary of Infoshine, which is a wholly owned subsidiary of Best Elite. Hejian engages in the semiconductor foundry business and owns an 8-inch fab in Suzhou, China. We received approval from the Investment Commission, Ministry of Economic Affairs, Executive Yuan on November 1, 2011, and as of December 31, 2012, we held a 35.03% equity stake in Best Elite, which included the 15.34% equity stake held by the trustee that was originally offered to us in March 2005, plus an additional 19.69% equity stake that was purchased from shareholders pursuant to the March 2011 offer. In order to further integrate and increase our ownership of Best Elite, on April 25, 2012, our board of directors proposed a new offer to the shareholders of Best Elite to acquire up to 64.97% of the issued and outstanding share capital of Best Elite. We received approval from the Investment Commission, Ministry of Economic Affairs, Executive Yuan on December 21, 2012 and acquired an additional 51.85% of the issued and outstanding share capital of Best Elite which we purchased through the April 25, 2012 offer. As of March 31, 2015, our cumulative ownership in Best Elite was 86.88%.

We and Alpha Wisdom Limited, or AWL, together held 94.79% of UMCJ's issued and outstanding share capital as of December 31, 2009 and UMCJ then delisted from the Nasdaq Securities Exchange in accordance with its listing rules on March 19, 2010. Since not all of the outstanding equity securities of UMCJ were acquired, we initiated certain squeeze-out procedures as provided in the Japanese Companies Act. Pursuant to such procedures, as of the end of 2010, we, together with AWL, owned 100% of UMCJ. On May 19, 2011, we acquired the remaining outstanding equity securities of UMCJ from AWL, and AWL filed for liquidation on August 30, 2011.

On August 21, 2012, our board of directors approved the dissolution and liquidation of UMCJ. We decided to close our foundry operations in Japan to focus on our manufacturing facilities in Taiwan and Singapore and reduce operating expenses. On November 28, 2013, we sold all our equity securities of UMCJ to Mach Semiconductor Co., Ltd., and, to continuously serve our Japanese customers, we established UMC Group Japan as our new regional sales hub.

On August 29, 2014, we and Fujitsu Semiconductor Limited, or Fujitsu, announced an agreement where we invested ¥5 billion as an initial investment and received approximately 9.3% of the issued and outstanding share capital to become a minority shareholder of a newly formed subsidiary of Fujitsu named Mie Fujitsu Semiconductor Limited, or MIFS, which will operate a 300mm wafer manufacturing facility located in Kuwana, Mie, Japan. Through this relationship with us, MIFS will aim to expand its business globally as a pure-play foundry company by strengthening its production and development capacity in a cost competitive manner.

On October 9, 2014, our board of directors approved an agreement with the Xiamen Municipal People's Government and Fujian Electronics & Information Group to found a new company named United Semiconductor (Xiamen) Co., Ltd., or UMC (Xiamen), based in Xiamen, China that will focus on 12-inch wafer foundry services. We anticipate that we may invest up to US\$1.35 billion in UMC (Xiamen) over the next five years, with our investment starting in 2015 that will be deployed in installments based on the progress of this company. UMC (Xiamen) will manufacture 12-inch wafers and initially offer 55 nanometer and 40 nanometer process technologies. Our participation in UMC (Xiamen) will comply with R.O.C. rules and regulations and will be subject to the review and approval by the relevant R.O.C. authorities. We have obtained the initial investment approval from the R.O.C. government on December 31, 2014.

On December 24, 2014, we transferred our 6-inch fabrication plant, or FAB6A, including machinery equipment and building facilities to our subsidiary, Wavetek Microelectronics Corporation, or Wavetek, in order to further satisfy

customer needs in the fast growing GaAs market and to improve the 6-inch fabrication operational efficiency among our group by fully utilizing the existing assets and resources.

Table of Contents

On December 26, 2014, our subsidiary, Topcell Solar International Co., Ltd., or Topcell, announced its plans to merge with Motech Industries, Inc., or Motech, through a share exchange transaction. The share exchange conversion will be six ordinary shares of Topcell into one newly-issued ordinary share of Motech. Upon completion of the merger, Motech will be the surviving company while Topcell Solar will be absorbed. Our share ownership of Motech after the completion of the merger will be approximately 9% of the issued and outstanding share capital of Motech, which would make us the second largest shareholder of Motech. Although the proposed record date of the merger transaction is currently set on July 1, 2015, the merger must be subject to the approvals from both provisional shareholders meeting and the relevant government authorities.

Please refer to Item 5. Operating and Financial Review and Prospects-B. Liquidity and Capital Resources for a discussion of our capital expenditures in the past three years and the plan for the current year.

Our Strategy

To maintain and enhance our position as a market leader, we have adopted a business strategy with a focus on a partnership business model designed to accommodate our customers' business needs and objectives and to promote their interests as our partners. We believe that our success and profitability are inseparable from the success of our customers. The goal in this business model is to create a network of partnerships or alliances among integrated device manufacturers, intellectual property and design houses, as well as foundry companies. We believe that we and our partners will benefit from the synergy generated through such long-term partnerships or alliances and the added value to be shared among the partners. The key elements of our strategy are:

Operate as a Customer-Driven Foundry. We plan to operate as a customer-driven foundry. The increasing complexity of 40 nanometer, 28 nanometer, and more advanced technologies has impacted the entire chip industry, as ICs can now be designed with greater gate density and higher performance while incorporating the functions of an entire system. These advanced designs have created a new proliferating market of advanced digital devices such as smart phones, which have decreased in size but greatly increased in functionality. We collaborate closely with our customers as well as partners throughout the entire supply chain, including equipment, electronic design automation tool and intellectual property vendors to work synergistically toward each customer's SoC solution. We also possess experience and know-how in system design and architecture to integrate customer designs with advanced process technologies and intellectual property. We believe the result is a higher rate of first-pass silicon success for our SoC solutions. Our customer-driven foundry solutions begin with a common logic-based platform, where designers can choose the process technologies and transistor options that best fit their specific application. From there, technologies such as radio frequency complementary metal-oxide-semiconductor, or RF CMOS, and embedded Flash memories can be used to further fine-tune the process for customers' individual needs. Furthermore, as intellectual property has become critical resources for SoCs, our portfolio includes basic design building blocks as well as more complex intellectual property of optimized portability and cost, developed both internally and by third-party partners. With advanced technology, a broad intellectual property portfolio, system knowledge and advanced 300-millimeter manufacturing, we offer comprehensive solutions that help customers deliver successful results in a timely fashion.

Build up Customer-focused Partnership Business Model. We have focused on building partnership relationships with our customers, and we strive to help our customers achieve their objectives through close cooperation. Unlike the traditional buy-and-sell relationship between a foundry and its customers, we believe our partnership business model will help us understand our customers' requirements and, accordingly, better accommodate our customers' needs in a number of ways, such as customized processes and services that optimize the entire value chain (not just the foundry portion) and intellectual property-related support. We believe that this business model will enable us to deliver our products to our customers at the earliest time our customers require for their design cycle, resulting in shorter time-to-market and time-to-volume production. Furthermore, we believe we will render more cost-effective services

by focusing our research and development expenditures on the specific requirements of our customers. We believe our partnership business model will help us not only survive a market downturn, but also achieve a better competitive position.

Continue to Focus on High Growth Applications and Customers and Actively Explore New Market Opportunities.

We believe one measure of a successful foundry company is the quality of its customers. We focus our sales and marketing on customers who are established or emerging leaders in industries with high growth potential. Our customers include industry leaders such as Broadcom, MediaTek, Realtek, Texas Instruments, Xilinx and Qualcomm. We seek to maintain and expand our relationships with these companies. We strive to demonstrate to these customers the superiority and flexibility of our manufacturing, technology and service capabilities and to provide them with production and design assistance. We are also making efforts to further diversify our customer portfolio in order to maintain a balanced exposure to different applications and different customers. We believe these efforts strengthen our relationships with our customers and enhance our reputation in the semiconductor industry as a leading foundry service provider.

Table of Contents

In addition to customer diversification, we also endeavor to actively exploring new market opportunities. Since renewable energy has become an area of focus for both developed and developing countries, we have strategically invested in the crystalline silicon and thin film solar sectors, and our investees have made improvements in power conversion efficiency with photovoltaic applications for buildings and vehicles.

Maintain Our Leading Position in Mass-Producible Semiconductor Technology and Selectively Pursue Strategic Investments in New Technologies. We believe that maintaining and enhancing our leadership in mass-producible semiconductor manufacturing technology is critical to attract and retain customers. Our reputation for technological excellence has attracted both established and emerging leaders in the semiconductor industries who work closely with us on technology development. In addition, we believe our superior processing expertise has enabled us to provide flexible production schedules to meet our customers' particular needs. We plan to continue enhancing capital expenditures in research and development and building internal research and development expertise, to focus on process development and to establish alliances with leading and specialty semiconductor companies to accelerate access to next-generation and specialized technologies. For example, we introduced our 28-nanometer technology to customers in 2011 to significantly increase the competitive advantages of our customers by providing better device performance in a smaller die size. In 2011, we achieved more than 10 customers and tapeouts for our 28-nanometer technology in 2011 and delivered pilot production on this generation to our lead customer. In 2014, our 28-nanometer technology further led to over 40 tapeouts. We believe our progress in developing more advanced process technologies has benefited our customers in the fields of computers, communications, consumer electronics and others with special preferences in certain aspects of the products, such as the ultimate performance, density and power consumption.

Moreover, we expect to strengthen our leading position and increase our market share by licensing our technologies to several corporate partners. For example, in 2014, we licensed to MIFS, which is expected to be a pure-play foundry company, our advanced 40 nanometer technology under a technology transfer and license agreement. In addition, we also entered into an agreement with the Xiamen Municipal People's Government and Fujian Electronics & Information Group in 2014 in connection with the newly established UMC (Xiamen) to be located in China, which will be focusing on the manufacturing of 12-inch wafers with initial offering of 55 nanometer and 40 nanometer process technologies. We believe that such strategy enables us to take advantage of our established research and development capabilities while expanding our footprint globally in a cost-effective manner.

We also recognize that every company has limited resources and that the foundry industry is ever-evolving. Accordingly, we believe we should invest in new research and development technology intelligently and in a cost-effective manner to achieve the ultimate output of the resulting technology. In doing so, we balance the rate of return of our research and development with the importance of developing a technology at the right time to enhance our competitive edge without unduly diluting our profitability. We intend to avoid investments in technologies that do not present a commercial potential for volume production. We believe that to develop the earliest and most advanced semiconductor technology without regard to its potential for near term volume production may prove costly to our operations and would not strengthen our competitive position. We perceive a benefit to defer investment in the premature equipment needed to claim the earliest advanced technology and instead to purchase a more advanced and less expensive version of equipment from vendors who design such equipment based on pre-production lessons learned from the earliest technology.

Maintain Scale and Capacity Capabilities to Meet Customer Requirements, with a Focus on 12-inch Wafer Facilities for Future Expansion. We believe that maintaining our foundry capacity with advanced technology and facilities is critical to the maintenance of our industry leadership. Our production capacity is currently among the largest of all semiconductor foundries in the world. We intend to increase our 12-inch wafer production capacity to meet the needs of our customers and to fully capitalize on the expected growth of our industry. We expect our future

capacity expansion plans will focus on 12-inch wafer facilities in order to maintain our technology leadership. 12-inch wafers offer manufacturing advantages over 8-inch wafers due to, among other reasons, the greater number of chips on each wafer and the advantages only offered on newer 12-inch capable equipment. In addition, 12-inch wafer facilities present a more cost-effective solution in achieving an economic scale of production. We intend to carefully monitor current market conditions in order to optimize the timing of our capital spending. We plan to also expand our capacity and capabilities to meet customer requirements in different markets by making strategic investments in other companies. For example, in 2014, we announced investments in Japan with Fujitsu Semiconductor Limited and in China with the Xiamen Municipal People's Government and Fujian Electronics & Information Group that will focus on manufacturing semiconductors using 12-inch wafers.

Table of Contents**B. Business Overview**
Manufacturing Facilities

To maintain a leading position in the foundry business, we have placed great emphasis on achieving and maintaining a high standard of manufacturing quality. As a result, we seek to design and implement manufacturing processes that produce consistent, high manufacturing yields to enable our customers to estimate, with reasonable certainty, how many wafers they need to order from us. In addition, we continuously seek to enhance our production capacity and process technology, two important factors that characterize a foundry's manufacturing capability. Our large production capacity and advanced process technologies enable us to provide our customers with volume production and flexible and quick-to-market manufacturing services. All of our fabs operate 24 hours per day, seven days per week. Substantially all maintenance at each of the fabs is performed concurrently with production.

As a step in our continuing expansion of our manufacturing complex in the Tainan Science Park in southern Taiwan, we completed the construction of our second 300mm fab in Taiwan in May 2009, and moved the equipment into this fab in July 2010.

The following table sets forth operational data of each of our manufacturing facilities as of December 31, 2014.

	Fab 6A	Fab 8A	Fab 8C	Fab 8D	Fab 8E	Fab 8F	Fab 8S	Fab 8N	Fab 12A	Fab 12i
Commencement of volume production	1989	1995	1998	2000	1998	2000	2000	2003	2002	2004
Estimated full capacity(1)(2)	37,500	68,000	29,000	28,500	35,000	32,500	28,000	46,800	60,102	45,107
	wafers	wafers	wafers	wafers	wafers	wafers	wafers	wafers	wafers	wafers
	per	per	per	per	per	per	per	per	per	per
	month	month	month	month	month	month	month	month	month	month
Wafer size	6-inch (150mm)	8-inch (200mm)	8-inch (200mm)	8-inch (200mm)	8-inch (200mm)	8-inch (200mm)	8-inch (200mm)	8-inch (200mm)	12-inch (300mm)	12-inch (300mm)

(1) Measured in stated wafer size.

(2) The capacity of a fab is determined based on the capacity ratings given by manufacturers of the equipment used in the fab, adjusted for, among other factors, actual output during uninterrupted trial runs, expected down time due to set up for production runs and maintenance and expected product mix.

The following table sets forth the size and primary use of our facilities and whether such facilities, including land and buildings, are owned or leased. Our land in the Hsinchu and Tainan Science Parks is leased from the R.O.C. government.

Location	Size (Land/Building) (in square meters)	Primary Use	Land (Owned or Leased)	Building (Owned or Leased)
-----------------	--	------------------------	-----------------------------------	---------------------------------------

Fab 6A, 10 Innovation 1 st Rd., Hsinchu Science Park, Hsinchu, Taiwan 30076, R.O.C.	27,898 / 34,609	6-inch wafer production	Leased (expires in December 2026)	Owned
--	-----------------	----------------------------	--------------------------------------	-------

Table of Contents

Location	Size (Land/Building) (in square meters)	Primary Use	Land (Owned or Leased)	Building (Owned or Leased)
Fab 8A, 3, 5 Li-Hsin 2 nd Rd., Hsinchu Science Park, Hsinchu, Taiwan 30078, R.O.C.	43,137 / 83,699	8-inch wafer production	Leased (expires in December 2033)	Owned
Fab 8C, 6 Li-Hsin 3 rd Rd., Hsinchu Science Park, Hsinchu, Taiwan 30078, R.O.C.	24,572 / 71,427	8-inch wafer production	Leased (expires in December 2033)	Owned
Fab 8D, 8 Li-Hsin 3 rd Rd., Hsinchu Science Park, Hsinchu, Taiwan 30078, R.O.C.	9,219 / 29,181	8-inch wafer production	Leased (expires in December 2033)	Owned
Fab 8E, 17 Li-Hsin Rd., Hsinchu Science Park, Hsinchu, Taiwan 30078, R.O.C.	35,779 / 76,315	8-inch wafer production	Leased (expires in February 2016)	Owned
Fab 8F, 3 Li-Hsin 6 th Rd., Hsinchu Science Park, Hsinchu, Taiwan 30078, R.O.C.	23,781 / 65,736	8-inch wafer production	Leased (expires in February 2018)	Owned
Fab 8S, 16 Creation 1 st Rd., Hsinchu Science Park, Hsinchu, Taiwan 30077, R.O.C.	20,365 / 65,614	8-inch wafer production	Leased (expires in December 2023)	Owned

Edgar Filing: UNITED MICROELECTRONICS CORP - Form 20-F

Fab 8N, 333, Xinghua St., Suzhou Industrial Park, Suzhou, Jiangsu Province 215025, People's Republic of China	215,621 / 100,908	8-inch wafer production	Leased (expires in December 2052)	Owned
--	-------------------	-------------------------	-----------------------------------	-------

Fab 12A, 18, 20 Nan-Ke 2 nd Rd., Tainan Science Park, Sinshih, Tainan, Taiwan 74147, R.O.C.	290,673 / 384,683	12-inch wafer production	Leased (expires in November 2034)	Owned
--	-------------------	--------------------------	-----------------------------------	-------

Fab 12i, 3 Pasir Ris Drive 12 Singapore 519528	84,836 / 143,510	12-inch wafer production	Leased (expires in March 2031)	Owned
---	------------------	--------------------------	--------------------------------	-------

United Tower, 3 Li-Hsin 2 nd Rd., Hsinchu Science Park, Hsinchu, Taiwan 30078, R.O.C.	8,985 / 85,224	Administration office	Leased (expires in December 2033)	Owned
--	----------------	-----------------------	-----------------------------------	-------

Neihu Rd. office, 8F, 68. Sec. 1, Neihu Rd., Taipei, Taiwan 11493, R.O.C.	626 / 4,817	Administration office	Owned	Owned
---	-------------	-----------------------	-------	-------

Testing Building, 1, Chin-Shan, 7 th St., Hsinchu, Taiwan 30080, R.O.C.	10,762 / 41,318	Leased to several companies	Owned	Owned
---	-----------------	-----------------------------	-------	-------

R&D Building, 18 Nan-Ke 2 nd Rd., Tainan Science Park, Sinshih,	42,000 / 47,396	Research and development	Leased (expires in December 2023)	Owned
---	-----------------	--------------------------	-----------------------------------	-------

Tainan, Taiwan
74147, R.O.C.

Nexpower, 2, Houke S. Rd.,	57,556 / 82,699	Solar PV modules	Leased (expires in December 2026)	Owned
Houli District, Taichung,		production		
Taiwan 42152, R.O.C.				

Table of Contents

Location	Size (Land/Building) (in square meters)	Primary Use	Land (Owned or Leased)	Building (Owned or Leased)
Topcell, 1560, Sec. 1, Zhongshan Rd., Guanyin Township, Taoyuan, Taiwan 32852, R.O.C.	- / 35,643	6-inch cell production	N/A	Leased (expires in March 2018)
Unistars, 1F, 669, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu, Taiwan 31061, R.O.C.	- / 1,955	High-power LED package and LED lighting	N/A	Leased (expires in May 2017)
Wavetek, 10, Chuangxin 1 st Rd., Baoshan Township, Hsinchu, Taiwan 30076, R.O.C.	- / 6,345	6-inch wafer production	N/A	Leased (expires in July 2015)

Process Technology

Process technology is a set of specifications and parameters that we implement for manufacturing the critical dimensions of the patterned features of the circuitry of semiconductors. Our process technologies are currently among the most advanced in the foundry industry. These advanced technologies have enabled us to provide flexible production schedules to meet our customers' particular needs.

The continued enhancement of our process technologies has enabled us to manufacture semiconductor devices with smaller geometries, allowing us to produce more dice on a given wafer. We pioneered the production of semiconductor products with 0.25 and 0.18 micron process technology in 1997 and 1999, respectively, and used copper interconnect metallurgic to allow better reliability and higher conductivity than traditional aluminum interconnects. We began volume production using 0.13-micron process technology in 2002. Our extensive experience in the 0.13-micron process technology has helped smooth our transition to 90-nanometer pilot production. Our 90-nanometer process marks further advance in our technology achievements, incorporating up to nine copper metal layers, triple gate oxide and other advanced features and using chrome-less phase-shift masks. This technology has been in volume production since the second quarter of 2004 after passing several product certifications. In 2005, our research and development teams continued to work closely with the manufacturing staff to finalize our 90-nanometer technology portfolio. These collaborative efforts, performed in our best-in-class 300mm facilities, contributed to the

improvement of high density 6T-SRAM yield to the maturity level of more than 90%. Our accomplishments led to multiple design awards followed by first silicon success, including a PC graphic IC and the world's first 90-nanometer Wireless Local Area Network (WLAN) RF chip featuring a unique and specially developed inductor scheme. In addition, we were able to develop, within 6 months, several customized 90-nanometer processes tailored to our customers' device specifications, and demonstrated product success by delivering record high yield for the first product lots. Our first fully-functional 65-nanometer wireless digital baseband customer IC was produced in July of 2005, after only a year since this research and development project began at this facility.

Since the third quarter of 2006, we have begun the mass production of a next-generation 65-nanometer FPGA product, which features a 65% logic capacity increase over previous generation of FPGAs with triple gate oxide and 11 copper metal layers. Our 65/55-nanometer development team is not only independently developing our technologies in-house but is also bringing up customized process technologies to match customer specific needs. Furthermore, our 45/40-nanometer process technologies, which are jointly developed by us and our strategic partners have been in production since the first half of 2009, significantly increasing the competitive advantages of our customers by providing better device performance in a smaller die size. Our 28nm process technologies with Poly-SiON and High-k/metal gate are developed for low power consumption and high performance applications, respectively. In October 2008, we were the first foundry to deliver fully functional 28nm SRAM chips, and have proven in customer silicon the High-k/metal gate solution used for this technology node. UMC's 28nm progress was also recognized by the industry with the foundry being selected to present at the 2009 IEDM on a hybrid High-k/metal gate approach. Currently, we are already working with several customers to adopt their products on UMC's 28nm technology. In 2013, we successfully developed and released into production 28nm Poly-SiON and High-k/metal gate technologies. Furthermore, we joined the International Business Machines Corporation, or IBM chip alliance, for the 10nm process development. With IBM's know-how and support, we aim to continue to improve our internally developed 14nm FinFET to offer competitive low-power technology enhancements for mobile computing and communication products, as well as develop a baseline 10nm process technology to meet the needs of our customers.

Table of Contents

The table below sets forth our actual process technology range, categorized by line widths, or the minimum physical dimensions of the transistor gate of integrated circuits in production by each fab, in 2014, and the estimated annual full capacity of each fab, actual total annual output and capacity utilization rates in 2012, 2013 and 2014:

Fab	Years of Commencement of Operation	2014 Range of Process Technologies (in microns)	Year ended December 31,		
			2012	2013	2014
			(in thousands of 8-inch wafer equivalents, except percentages)		
Fab 6A	1989	0.5	271	252	252
Fab 8A	1995	0.5 to 0.25	815	813	813
Fab 8C	1998	0.35 to 0.11	360	347	347
Fab 8D	2000	0.13 to 0.09	371	382	358
Fab 8E	1998	0.5 to 0.18	449	418	418
Fab 8F	2000	0.18 to 0.11	389	388	388
Fab 8S	2000	0.18 to 0.11	348	335	335
Fab 8N ⁽¹⁾	2003	0.5 to 0.13		469	547
Fab 12A	2002	0.13 to 0.028	1,304	1,465	1,576
Fab 12i	2004	0.13 to 0.040	1,207	1,238	1,289
UMCJ ⁽²⁾	1996	0.35 to 0.15	240		
Total estimated capacity			5,754	6,107	6,323
Total output (actual)			4,533	5,026	5,629
Average capacity utilization			78.8%	82.3%	89.0%

(1) In 2013, we obtained controlling interests in Best Elite, which owns 100% interests in Fab 8N.

(2) Starting November 2013, we lost our controlling interests in UMCJ.

The table below sets forth a breakdown of number and percentage of wafer output by process technologies in 2012, 2013 and 2014.

Technology	Years Ended December 31,						
	2012		2013		2014		
		(in thousands of 8-inch wafer equivalents, except percentages)					
		%	%	%	%	%	
28 nanometers and under	15	0.3	10	0.2	76	1.5	
40 nanometers	334	7.4	622	12.4	766	13.6	
65 nanometers	1,296	28.6	1,140	22.7	1,138	20.2	
90 nanometers	225	5.0	235	4.7	306	5.4	
0.11/0.13 micron	799	17.6	828	16.5	875	15.6	
0.15/0.18 micron	544	11.9	796	15.8	904	16.0	

0.25/0.35 micron	918	20.3	1,033	20.5	1,174	20.8
0.50 micron or higher	402	8.9	362	7.2	390	6.9
Total	4,533	100.0	5,026	100.0	5,629	100.0

Capacity and Utilization

The fabs in Taiwan that we own directly are named Fab 6A, Fab 8A, Fab 8C, Fab 8D, Fab 8E, Fab 8F and Fab 8S, all of which are located in the Hsinchu Science Park in Taiwan, and Fab 12A, which is located in the Tainan Science Park in Taiwan. The fab in Singapore is named Fab 12i and the fab in China is named Fab 8N.

Our average capacity utilization rate was 78.8% in 2012, 82.3% in 2013 and 89.0% in 2014.

Table of Contents

Equipment

Considering the performance and productivity of our manufacturing capability highly relies on the quality of our capital equipment, we generally purchase equipment that not only meet the demand of our existing process technology, but also have the capability to be upgraded to match our future needs. The principal equipment we use to manufacture semiconductor devices are scanners/steppers, cleaners and track equipment, inspection equipment, etchers, furnaces, wet stations, strippers, implanters, sputters, CVD equipment, probers, testers and so on. We own all of the production equipment except for a few demonstration tools.

Our policy is to purchase high-quality equipment that demonstrates stable performance from vendors with dominant market share to ensure our continued competitiveness in the semiconductor field.

Some of the equipment is available from a limited number of qualified vendors and/or is manufactured in relatively limited quantities, and some equipment has only recently been developed. We believe that our relationships with equipment suppliers are strong enough that we can leverage our position as a major purchaser to purchase equipment on competitive terms, including shorter lead time, compared with the terms received by several other foundries.

Although we face the challenge of procuring the right equipment in sufficient quantity necessary for ramp-up or expansion of our fabrication facilities under constraint of short lead times, we have not in the past experienced any material problems in procuring the latest generation equipment on a timely basis even in periods of unpredictably high market demand. We manage the risks in the procurement process through timely internal communications among different divisions, efficient market information collection, early reservation of appropriate delivery slots and constant communications with our suppliers as well as by utilizing our good relationships with the vendors.

Raw Materials

Our manufacturing processes use many raw materials, primarily silicon wafers, chemicals, gases and various types of precious sputtering targets. These raw materials are generally available from several suppliers. Our policy with respect to raw material purchases, similar to that for equipment purchases, is to select only a small number of qualified vendors who have demonstrated quality and reliability on delivery time of the raw materials. We may have any long-term supply contracts with our vendors if necessary.

Our general inventory policy is to maintain sufficient stock of each principal raw material for production and rolling forecasts of near-term requirements received from customers. In addition, we have agreements with several key material suppliers under which they hold similar levels of inventory in their warehouses for our use. However, we are not under any obligation to purchase raw material inventory that is held by our vendors for our benefit until we actually order it. We typically work with our vendors to plan our raw material requirements on a monthly basis, with indicative pricing generally set on a quarterly basis. The actual purchase price is generally determined based on the prevailing market conditions. In the past, prices of our principal raw materials have not been volatile to a significant degree. Although we have not experienced any shortage of raw materials that had a material effect on our operations, and supplies of raw materials we use currently are adequate, shortages could occur in various critical materials due to interruption of supply or an increase in industry demand.

The most important raw material used in our production processes is silicon wafer, which is the basic raw material from which integrated circuits are made. The principal makers for our wafers are Shin-Etsu, Siltronic AG, SunEdison Corporation and Sumco Group. We have in the past obtained and believe that we will continue to be able to obtain a sufficient supply of silicon wafers. We believe that we have close working relationships with our wafer suppliers. Based on such long-term relationships, we believe that these major suppliers will use their best efforts to

accommodate our demand.

Table of Contents

We use a large amount of water in our manufacturing process. We obtain water supplies from government-owned entities and recycle approximately 85% of the water that we use during the manufacturing process. We also use substantial amounts of dual loop electricity supplied by Taiwan Power Company in the manufacturing process. We maintain back-up generators that are capable of providing adequate amounts of electricity to maintain the required air pressure in our clean rooms in case of power interruptions. We believe our back-up devices are reasonably adequate in preventing business interruptions caused by power outages and emergency situations.

Quality Management

We believe that our advanced process technologies and reputation for high quality and reliable services and products have been important factors in attracting and retaining leading international and domestic semiconductor companies as customers.

We structure our quality management system in accordance with the latest international quality standards and our customers' strict quality and reliability requirements. Our quality management system incorporates comprehensive quality control programs into the entire business flow of foundry operation including, among others, new process development management, production release control, incoming raw material inspection, statistical process control and methodology development, process change management, technical documentation control, product final inspection, metrology tool calibration and measurement system analysis, quality audit program, nonconformity management, customer complaint disposition, eight-discipline problem solving and customer satisfaction monitoring.

We set a high quality goal to ensure consistent high yielding and reliable product performance. Our quality program is continually enhanced through top-down annual Business Policy Management and bottom-up Total Quality Management activities. In addition, our efforts to observe best practices among fabs in the foundry industry have also contributed to the improvement of our overall quality management system.

Many of our customers perform physical production site qualification process in the early development phase and routine quality conformance audits in the volume production phase. These audits include both quality system review and physical fabrication area inspection for verification of conformity with the international quality standard and customers' quality requirement. Our quality management system and quality control programs have been qualified and routinely audited by numerous customers who are recognized as world-class semiconductor companies with best-in-class quality standards.

Our Quality Assurance Division and Reliability Technology and Assurance Division collaborate to provide quality and reliability performance to customers. With our wafer processing quality and reliability conformance monitor program, we monitor the product quality and reliability at various stages of the entire manufacturing process before shipment to customers.

All our fabs are certified in compliance with ISO/TS 16949 and QC080000 IECQ HSPM standards. ISO/TS 16949 sets the criteria for developing a fundamental quality management system emphasizing on customer satisfaction in quality management, continual improvement, defect prevention and variation and waste reduction. QC080000 IECQ HSPM sets the criteria for developing a process management system for hazardous substances and focuses on developing environmentally friendly manufacturing processes. We are committed to continuously improve our quality management system and to deliver high quality product to our customers.

Services and Products

We primarily engage in wafer fabrication for foundry customers. To optimize fabrication services for our customers, we work closely with them as they finalize circuit design and contract for the preparation of masks to be used in the manufacturing process. We also offer our customers turnkey services by providing subcontracted assembly and test services. We believe that this ability to deliver a variety of foundry services in addition to wafer fabrication enables us to accommodate the needs of a full array of integrated device manufacturers, system companies and fabless design customers with different in-house capabilities.

Wafer manufacturing requires many distinct and intricate steps. Each step in the manufacturing process must be completed with precision in order for finished semiconductor devices to work as intended. The processes require taking raw wafers and turning them into finished semiconductor devices generally through five steps: circuit design, mask tooling, wafer fabrication, assembly and test. The services we offer to our customers in each of these five steps are described below.

Table of Contents

Circuit Design. At this initial design stage, our engineers generally work with our customers to ensure that their designs can be successfully and cost-effectively manufactured in our facilities. We have assisted an increasing number of our customers in the design process by providing them with access to our partners' electronic design analysis tools, intellectual property and design services as well as by providing them with custom embedded memory macro-cells. In our Silicon Shuttle program, we offer customers and intellectual property providers early access to actual silicon samples with their desired intellectual property and content in order to enable early and rapid use of our advanced technologies. The Silicon Shuttle program is a multi-chip test wafer program that allows silicon verification of intellectual property and design elements. In the Silicon Shuttle program, several different vendors can test their intellectual property using a single mask set, greatly reducing the cost of silicon verification for us and the participating vendors. The high cost of masks for advanced processes makes this program attractive to intellectual property vendors. ARM Limited, Faraday Technology Corp., MIPS Technologies International, and Synopsys Inc. have utilized our Silicon Shuttle program. In our alliances with them, we coordinate with leading suppliers of intellectual property, design and ASIC services to ensure their offerings are available to our customers in an integrated, easy to use manner which matches customers' need to our technologies. With a view to lowering customer design barriers, we expanded our design support functions from conventional design support to adding intellectual property development to complement third-party intellectual properties and to provide customers with the widest range of silicon-verified choices. Our offerings range from design libraries to basic analog mixed-mode intellectual properties which, together, have helped shorten our customers' design cycle time.

Mask Tooling. Our engineers generally assist our customers to design and/or obtain masks that are optimized for our advanced process technologies and equipment. Actual mask production is usually provided by independent third parties specializing in mask tooling.

Wafer Fabrication. As described above, our manufacturing service provides all aspects of the wafer fabrication process by utilizing a full range of advanced process technologies. During the wafer fabrication process, we perform procedures in which a photosensitive material is deposited on the wafer and exposed to light through the mask to form transistors and other circuit elements comprising of a semiconductor. The unwanted material is then etched away, leaving only the desired circuit pattern on the wafer. As part of our wafer fabrication services, we also offer wafer probing services, which test, or probe, individual die on the processed wafers and identify dice that fail to meet required standards. We prefer to conduct wafer probing internally to obtain speedier and more accurate data on manufacturing yield rates.

Assembly and Testing. We offer our customers turnkey services by providing the option to purchase finished semiconductor products that have been assembled and tested. We outsource assembly and test services to leading assembly and test service providers, including Siliconware Precision Industries Co., Ltd., or Siliconware, and Advanced Semiconductor Engineering Inc. in Taiwan. After final testing, the semiconductors are shipped to our customers' designated locations.

In addition to our foundry business, we also engage in the research, development and manufacture of products in the solar energy and LED industries.

Customers and Markets

Our primary customers, in terms of our sales revenues, include premier integrated device manufacturers, such as Texas Instruments, Intel Mobile and STMicroelectronics, and leading fabless design companies, such as Xilinx, Broadcom, MediaTek, Realtek and Novatek. Although we are not dependent on any single customer, a significant portion of our net operating revenues has been generated from sales to a few customers. Our top ten customers accounted for approximately 54.6% of our net operating revenues in 2014. Set forth below is a geographic breakdown

of our operating revenues in 2012, 2013 and 2014 by the location of our customers.

Region	Years Ended December 31,		
	2012	2013	2014
	<i>%</i>	<i>%</i>	<i>%</i>
Taiwan	36.4	32.9	34.2
Singapore	27.7	23.8	12.5
China (including Hong Kong)	5.3	9.5	10.7
Japan	2.5	3.7	5.4
USA	13.3	12.4	8.9
Europe	6.6	9.8	19.6
Others	8.2	7.9	8.7
Total	100.0	100.0	100.0

Table of Contents

We believe our success in attracting these end customers is a direct result of our commitment to high quality service and our intense focus on customer needs and performance. As an independent semiconductor foundry, most of our operating revenue is generated by our sales of wafers. For 2014, gross wafer sales represented 88.8% of our net operating revenue. The following table presented the percentages of our gross wafer sales by types of customers for the years ended December 31, 2012, 2013 and 2014.

Customer Type	Years Ended December 31,		
	2012 %	2013 %	2014 %
Fabless design companies	83.6	88.6	90.8
Integrated device manufacturers	16.4	11.4	9.2
Total	100.0	100.0	100.0

We focus on providing a high level of customer service in order to attract customers and maintain their ongoing loyalty. Our culture emphasizes responsiveness to customer needs with a focus on flexibility, speed and accuracy throughout our manufacturing and delivery processes. Our customer-oriented approach is especially evident in two types of services: customer design development services and manufacturing services. For example, in 2013, we expand our regional business by opening our UMC Korea office, in order to provide local support to our customers in Korea, and shorten time-to-market for our Korea-based customers designing and manufacturing on UMC process technologies. We believe that our large production capacity and advanced process technology enable us to provide better customer service than many other foundries through shorter turn-around time, greater manufacturing flexibility and higher manufacturing yields.

We work closely with our customers throughout the design development and prototyping processes. Our design support team closely interacts with customers and intellectual property vendors to facilitate the design process and to identify their specific requirements for intellectual property offerings. We are responsive to our customers requirements in terms of overall turn-around time and production time-to-market by, for example, helping our customers streamline their intellectual property offering processes and delivering prototypes in a timely and easy-to-use fashion. We also maintain flexibility and efficiency in our technical capability and respond quickly to our customers design changes.

For intellectual property offerings, we work with several leading intellectual property vendors from digital, memory and analog fields in the semiconductor industry, such as Faraday Technology Corp., Synopsys Inc., ARM Limited, Sidense Corp., Kilopass Technology, eMemory Technology Inc., True Circuits, Inc., Silicon Storage Technology, Inc., eSilicon Corp., Krivi Semiconductor Private Limited, Cadence Design System, Inc., Cypress Semiconductor Corporation and Dolphin Integration SA, to deliver quality intellectual property blocks that have been silicon validated using our advanced processes. Our alliances with major electronic design automation vendors, such as Cadence, Mentor and Synopsys Inc., provide our customers with digital/analog reference design procedures and easy-to-use design solutions. By continuously enhancing our intellectual property offerings, reference design procedures and design services through collaboration with major vendors, we aim to provide complete, accurate and user-friendly design solutions to our customers.

As a design moves into manufacturing production, we continue to provide ongoing customer support through all phases of the manufacturing process. The local account manager works with our customer service representative to

ensure the quality of our services, drawing upon our marketing and customer engineering support teams as required.

Table of Contents

We offer an online service, MyUMC, which gives our customers easy access to our foundry services by providing a total online supply chain solution. MyUMC offers 24-hour access to detailed account information such as manufacturing, engineering and design support documents through each customer's own customized start page. The features that are available to customers through MyUMC include (i) viewing the status of orders from the start of production to the final shipping stages; (ii) designing layouts to shorten customers' tape out time; (iii) collecting customer engineering requests; (iv) gathering and downloading documents for design purposes; and (v) and accessing online in real-time the same manufacturing data used by our fab engineers. In addition, we have a system-to-system connecting services to provide direct data exchange between our system and our customers' systems. These services, which include our UMC Design View Room Cloud Service, facilitate our design collaborations with our customers to help reduce the cost of chip designs and reduce the time to market. In order to continue to improve our information security management, our Information Technology Division received the certification of ISO/IEC 27001:2005 in March 2008.

We price our products on a per die or per wafer basis, taking into account the complexity of the technology, the prevailing market conditions, the order size, the cycle time, the strength and history of our relationship with the customer and our capacity utilization. Our main sales office is located in Taiwan, which is in charge of our sales activities in Asia. United Microelectronics (Europe) BV, our wholly-owned subsidiary based in Amsterdam, assists our sales to customers in Europe. Our sales in North America are made through UMC Group (USA), our subsidiary located in Sunnyvale, California. We also have sales offices in China, Japan and Korea to support our customers in those regions.

We typically designate a portion of our wafer manufacturing capacity to some of our customers primarily under two types of agreements: reciprocal commitment agreements and deposit agreements. Under a reciprocal commitment agreement, the customer agrees to pay for, and we agree to supply, a specified capacity at a specified time in the future. Under a deposit agreement, the customer makes in advance a cash deposit for an option on a specified capacity at our fabs for a stated period of time. Option deposits are credited to wafer purchase prices as shipments are made. If this customer does not use the specified capacity, it will forfeit the deposit but, in certain circumstances and with our permission, the customer may arrange for a substitute customer to utilize such capacity. In some cases, we also make available capacity to customers under other types of agreements, such as capacity commitment arrangements with technology partners.

We advertise in trade journals, organize technology seminars, hold a variety of regional and international sales conferences and attend a number of industry trade fairs to promote our products and services. We also publish a corporate newsletter for our customers.

Competition

The worldwide semiconductor foundry industry is highly competitive, particularly during periods of overcapacity and inventory correction. We compete internationally and domestically with dedicated foundry service providers as well as with integrated device manufacturers and final product manufacturers which have in-house manufacturing capacity or foundry operations. Some of our competitors have substantially greater production, financial, research and development and marketing resources than we have. As a result, these companies may be able to compete more aggressively over a longer period of time than we can. In addition, several new dedicated foundries have commenced operations and compete directly with us. Any significant increase in competition may erode our profit margins and weaken our earnings.

We believe that our primary competitors in the foundry services market are Taiwan Semiconductor Manufacturing Company Limited, Semiconductor Manufacturing International (Shanghai) Corporation and Globalfoundries Inc., as

well as the foundry operation services of some integrated device manufacturers such as IBM, Samsung, Intel and Toshiba. Other competitors such as DongbuAnam Semiconductor, Grace Semiconductor Manufacturing Corp., X-FAB Semiconductors Foundries AG and Silterra Malaysia Sdn. Bhd. have initiated efforts to develop substantial new foundry capacity, although much of such capacity involves less cost-effective production than the 12-inch fabs for which we possess technical know-how. New entrants in the foundry business are likely to initiate a trend of competitive pricing and create potential overcapacity in legacy technology. The principal elements of competition in the semiconductor foundry industry include technical competence, production speed and cycle time, time-to-market, research and development quality, available capacity, manufacturing yields, customer service and price. We believe that we compete favorably with the new competitors on each of these elements, particularly our technical competence and research and development capabilities.

Table of Contents

Intellectual Property

Our success depends in part on our ability to obtain patents, licenses and other intellectual property rights covering our production processes and activities. To that end, we have acquired certain patents and patent licenses and intend to continue to seek patents on our production processes. As of December 31, 2014, we held 4,409 U.S. patents and 6,416 patents issued outside of the United States.

Our ability to compete also depends on our ability to operate without infringing on the proprietary rights of others. The semiconductor industry is generally characterized by frequent claims and litigation regarding patent and other intellectual property rights. As is the case with many companies in the semiconductor industry, we have from time to time received communications from third parties asserting patents that allegedly cover certain of our technologies and alleging infringement of certain intellectual property rights of others. We expect that we will receive similar communications in the future. Irrespective of the validity or the successful assertion of such claims, we could incur significant costs and devote significant management resources to the defense of these claims, which could seriously harm our company. See Item 3. Key Information D. Risk Factors Our inability to obtain, preserve and defend intellectual property rights could harm our competitive position.

In order to minimize our risks from claims based on our manufacture of semiconductor devices or end-use products whose designs infringe on others' intellectual property rights, we in general accept orders only from companies that we believe enjoy satisfactory reputation and for products that are not identified as risky for potential infringement claims. Furthermore, we obtain indemnification rights from customers. We also generally obtain indemnification rights from equipment vendors to hold us harmless from any losses resulting from any suit or proceedings brought against our company involving allegation of infringement of intellectual property rights on account of our use of the equipment supplied by them.

We have entered into various patent cross-licenses with major technology companies, including a number of leading international semiconductor companies, such as IBM and LSI. Our cross licenses may have different terms and expiry dates. Depending upon our competitive position and strategy, we may or may not renew our cross licenses and further, we may enter into different and/or additional technology and/or intellectual property licenses in the future.

Research and Development

In 2012, 2013 and 2014, we spent NT\$9,787 million, NT\$12,493 million and NT\$13,664 million (US\$432 million), respectively, on research and development, which represented 8.5%, 10.1% and 9.8%, respectively, of our net operating revenues of such years. Our research and development efforts mainly focus on delivering SoC foundry solutions that consist of the world's leading process technologies, customer support services and manufacturing techniques. These resources provide our foundry customers with improved opportunities to develop SoC products that we repurchase in favor of us.

Reimbursement of Expenses. Our non-employee Board members are also entitled to reimbursement of expenses they incur in connection with the performance of their duties as Board members or members of Board committees.

Compensation Committee Interlocks and Insider Participation

In 2006, because we did not have a standing Compensation Committee, our Board of Directors conducted all reviews and made all decisions concerning executive officer compensation. None of our executive officers serves on the board of directors or compensation committee of any company where any member of our Board of Directors is an executive

officer.

Compensation Committee Report*

Prior to June 2007, we did not have a separate Compensation Committee. In the absence of the Compensation Committee, our full Board of Directors has reviewed and discussed with management the Compensation Discussion and Analysis (CD&A) contained in this proxy statement. Based on this review and discussion, the Board of Directors has recommended that the CD&A be included in this proxy statement.

/s/ BARRY D. QUART, PHARM.D.

Barry D. Quart, Pharm.D.

/s/ HENRY J. FUCHS, M.D.

Henry J. Fuchs, M.D.

/s/ JACK S. REMINGTON, M.D.

Jack S. Remington, M.D.

/s/ KEVIN C. TANG

Kevin C. Tang

***The material in this report is not soliciting material, is furnished to, but not deemed filed with, the Commission and is not deemed to be incorporated by reference in any filing of the Company under the Securities Act or the Exchange Act whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.**

Table of Contents

Transactions With Related Persons

Related-Person Transactions Policy and Procedures

In June 2007, the Company adopted a written Related-Person Transactions Policy that sets forth the Company's policies and procedures regarding the identification, review, consideration and approval or ratification of related-persons transactions. For purposes of our policy only, a related-person transaction is a transaction, arrangement or relationship (or any series of similar transactions, arrangements or relationships) in which the Company and any related person are participants involving an amount that exceeds \$50,000. Transactions involving compensation for services provided to the Company as an employee, consultant or director are not covered by this policy. A related person is any executive officer or director of the Company who served in that capacity since the beginning of the Company's last fiscal year, any nominee for director, or any owner of more than 5% of any class of voting stock of the Company, including any of their immediate family members, and any entity owned or controlled by such persons.

Under the policy, where a transaction has been identified as a related-person transaction, management must present information regarding the proposed related-person transaction to the Audit Committee (or, where Audit Committee approval would be inappropriate, to another independent body of the Board of Directors) for consideration and approval or ratification. The presentation must include a description of, among other things, the material facts, the interests, direct and indirect, of the related persons, the benefits to the Company of the transaction and whether any alternative transactions were available. To identify related-person transactions in advance, the Company relies on information supplied by its executive officers, directors and certain significant shareholders. In considering related-person transactions, the Audit Committee takes into account the relevant available facts and circumstances including, but not limited to (a) the risks, costs and benefits to the Company, (b) the impact on a director's independence in the event the related person is a director, immediate family member of a director or an entity with which a director is affiliated, (c) the terms of the transaction, (d) the availability of other sources for comparable services or products and (e) the terms available to or from, as the case may be, unrelated third parties. In the event a director has an interest in the proposed transaction, the director must recuse himself or herself from the deliberations and approval. The policy requires that, in determining whether to approve, ratify or reject a related-person transaction, the Audit Committee looks at, in light of known circumstances, whether the transaction is in, or is not inconsistent with, the best interests of the Company and its stockholders, as the Audit Committee determines in the good faith exercise of its discretion.

Certain Related-Person Transactions

The Company has entered into indemnification agreements with certain officers and directors as well as Hickey & Hill, which provide, among other things, that we will indemnify such officer, director, or Hickey & Hill, as applicable, under the circumstances and to the extent provided for therein, for expenses, damages, judgments, fines and settlements he, she or it may be required to pay in actions or proceedings which he, she or it is or may be made a party by reason of his, her or it's position as a director, officer, or other agent of the Company or, with respect to Hickey & Hill, its service as our consultant, and otherwise to the fullest extent permitted under Delaware law and our Bylaws.

On June 20, 2005, we entered into a one year services agreement with Hickey & Hill (the Services Agreement), pursuant to which Hickey & Hill was engaged to provide us with administrative and financial consulting services, and Denis Hickey was appointed as our Chief Executive Officer and Chief Financial Officer. However, the Services Agreement may be terminated earlier by us upon 30 days written notice to Hickey & Hill, and Hickey & Hill may terminate the agreement upon 90 days written notice to us. On June 30, 2006, and in subsequent Amendments 2 and 3 to that agreement, the Board extended the contract for another year, increased the monthly rate to \$13,200, approved a yearly bonus payable in April of 2007, and revised a provision for overtime hours related to out-of-the-ordinary events

such as the acquisition of Valeant assets.

On December 20, 2006, our Board of Directors accepted the resignation of Denis Hickey of Hickey & Hill from his position as our Chief Executive Officer. Mr. Hickey will continue to serve as our Chief Financial Officer. On December 21, 2006, the day before the announcement of the transaction with Valeant, we granted Mr. Hickey an option to purchase 10,000 shares of our common stock. The option was granted under a separate stock option agreement under our stock option plan. The option has an exercise price of \$3.90, which was the closing sales price of our common stock on the date of grant. The option is fully vested at grant.

In addition, see the Section entitled "Potential Payments Upon Termination or Change-In-Control" in this proxy statement for certain information regarding employment agreements between us and various of our executive officers.

Table of Contents

Householding of Proxy Materials

The SEC has adopted rules that permit companies and intermediaries (e.g., brokers) to satisfy the delivery requirements for proxy statements and annual reports with respect to two or more stockholders sharing the same address by delivering a single proxy statement addressed to those stockholders. This process, which is commonly referred to as householding, potentially means extra convenience for stockholders and cost savings for companies.

This year, a number of brokers with account holders who are Ardea stockholders will be householding our proxy materials. A single proxy statement will be delivered to multiple stockholders sharing an address unless contrary instructions have been received from the affected stockholders. Once you have received notice from your broker that they will be householding communications to your address, householding will continue until you are notified otherwise or until you revoke your consent. If, at any time, you no longer wish to participate in householding and would prefer to receive a separate proxy statement and annual report, please notify your broker. Direct your written request to Ardea Biosciences, Inc. 2131 Palomar Airport Road, Suite 300, Carlsbad, California 92011, Attention Dr. Barry D. Quart or contact Dr. Quart at (714) 729-5555. Stockholders who currently receive multiple copies of the proxy statement at their addresses and would like to request householding of their communications should contact their brokers.

Table of Contents

Other Matters

The Board of Directors knows of no other matters that will be presented for consideration at the Annual Meeting. If any other matters are properly brought before the meeting, it is the intention of the persons named in the accompanying proxy to vote on such matters in accordance with their best judgment.

By Order of the Board of Directors

Barry D. Quart, Pharm.D.
Secretary

June [], 2007

A copy of the Company's Annual Report to the Securities and Exchange Commission on Form 10-K for the fiscal year ended December 31, 2006 is available without charge upon written request to: Corporate Secretary, Ardea Biosciences, Inc., 2131 Palomar Airport Road, Suite 300, Carlsbad, California 92011.

Table of Contents

Appendix A

Charter Amendments

**CERTIFICATE OF AMENDMENT OF
AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION OF
ARDEA BIOSCIENCES, INC.**

Ardea Biosciences, Inc. (the *Corporation*), a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware (the *DGCL*), does hereby certify that:

First: The name of the Corporation is Ardea Biosciences, Inc.

Second: The original name of the Corporation is IntraBiotics Pharmaceuticals, Inc. The date on which the Corporation's original Certificate of Incorporation was originally filed with the Secretary of State of the State of Delaware was January 19, 1994.

Third: The Board of Directors of the Corporation, acting in accordance with the provisions of Sections 141 and 242 of the DGCL, adopted resolutions amending its Amended and Restated Certificate of Incorporation as follows:

1. Article V, Section A.1 of the Amended and Restated Certificate of Incorporation shall be amended and restated to read in its entirety as follows:

1. The management of the business and the conduct of the affairs of the Corporation shall be vested in its Board of Directors. The number of directors which shall constitute the Board of Directors shall be no less than 5 and no greater than 11 directors and shall be fixed exclusively by resolutions adopted by a majority of the authorized number of directors constituting the Board of Directors.

2. Article V, Section A.2 of the Amended and Restated Certificate of Incorporation shall be amended and restated to read in its entirety as follows:

2. ELECTION OF DIRECTORS. Subject to the rights of the holders of any series of Preferred Stock to elect additional directors under specified circumstances, directors shall be elected at each annual meeting of stockholders to hold office until the next annual meeting. Each director shall serve until his or her successor is duly elected and qualified or until his or her death, resignation or removal. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

3. Article V, Section A.3(a) and (b) of the Amended and Restated Certificate of Incorporation is hereby deleted and replaced with the following new Article V, Section A.3:

3. REMOVAL OF DIRECTORS. The Board of Directors or any individual director may be removed from office at any time with or without cause by the affirmative vote of the holders of at least a majority of the voting power of all the then-outstanding shares of capital stock of the Corporation, entitled to vote at an election of such directors.

4. Article V, Section B.1 of the Amended and Restated Certificate of Incorporation shall be amended and restated to read in its entirety as follows:

1. The Board of Directors is expressly empowered to adopt, amend or repeal the Bylaws of the corporation. The stockholders shall have power to adopt, amend or repeal the Bylaws of the Corporation; provided, however, that, in addition to any vote of the holders of any class or series of stock of the Corporation required by law or by this Certificate of Incorporation or any certificate of designation filed with respect to a series of Preferred Stock, the affirmative vote of the holders of at least a majority of the

A-1.

Table of Contents

voting power of all of the then-outstanding shares of the capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class, shall be required to adopt, amend or repeal any provision of the Bylaws of the Corporation.

5. Article VII of the Amended and Restated Certificate of Incorporation shall be amended and restated to read in its entirety as follows:

The corporation reserves the right to amend, alter, change or repeal any provision contained in this Certificate of Incorporation, in the manner now or hereafter prescribed by statute, and all rights conferred upon the stockholders herein are granted subject to this reservation.

Fourth: The foregoing amendment was submitted to the stockholders of the Corporation for their approval, and was duly adopted in accordance with the provisions of Section 242 of the General Corporation Law of the State of Delaware.

In Witness Whereof, Ardea Biosciences, Inc. has caused this Certificate of Amendment to be signed by its Chief Executive Officer this day of , 2007.

Ardea Biosciences, Inc.

By:

Barry D. Quart, Pharm.D

A-2.

Table of Contents

AMENDED AND RESTATED BYLAWS
OF
~~INTRABIOTICS PHARMACEUTICALS, INC.~~
ARDEA BIOSCIENCES, INC.

ARTICLE I
OFFICES

Section 1. Registered Office. The registered office of the corporation in the State of Delaware shall be in the City of Wilmington, County of New Castle.

Section 2. Other Offices. The corporation shall also have and maintain an office or principal place of business at such place as may be fixed by the Board of Directors, and may also have offices at such other places, both within and without the State of Delaware as the Board of Directors may from time to time determine or the business of the corporation may require.

ARTICLE II
CORPORATE SEAL

Section 3. Corporate Seal.

The Board of Directors may adopt a corporate seal.

The corporate seal shall consist of a die bearing the name of the corporation and the inscription, Corporate Seal-Delaware. Said seal may be used by causing it or a facsimile thereof to be impressed or affixed or reproduced or otherwise.

ARTICLE III
STOCKHOLDERS MEETINGS

Section 4. Place of Meetings. Meetings of the stockholders of the corporation ~~shall~~

may

be held at such place, either within or without the State of Delaware, as may be ~~designated~~ determined

from time to time by the Board of Directors, ~~or, if not so designated, then at the office of the corporation required to be maintained pursuant to Section 2 hereof~~

. The Board of Directors may, in its sole discretion, determine that the meeting shall not be held at any place, but may instead be held solely by means of remote communication as provided under the Delaware General Corporation Law (DGCL).

Section 5. Annual Meetings.

(a) The annual meeting of the stockholders of the corporation, for the purpose of election of directors and for such other business as may lawfully come before it, shall be held on such date and at such time as may be designated from

time to time by the Board of Directors. Nominations of persons for election to the Board of Directors of the corporation and the proposal of business to be considered by the stockholders may be made at an annual meeting of stockholders: (4

i
) pursuant to the corporation's notice of meeting of stockholders; (ii) by or at the direction of the Board of Directors; or (iii) by any stockholder of the corporation who was a stockholder of record at the time of giving of the stockholder's notice provided for in the following paragraph, who is entitled to vote at the meeting and who complied with the notice procedures set forth in this Section 5.

(b) At an annual meeting of the stockholders, only such business shall ~~be~~ be conducted as shall have been properly brought before the meeting. For nominations or other business to be properly brought before an annual meeting by a stockholder pursuant to clause (e
iii
) of Section 5(a) of these Bylaws, (4
i
) the stockholder must have given timely notice thereof in writing to the Secretary of the corporation, (ii) such other business must be a proper matter for stockholder action under ~~the Delaware General Corporation Law (DGCL)~~ DGCL, (iii) if the stockholder, or the beneficial owner on whose behalf any such proposal or nomination is made, has provided the corporation with a Solicitation Notice (as defined in clause (iii) of the last sentence of this Section 5(b)), such stockholder or beneficial owner must, in the case of a proposal, have delivered a proxy statement and ~~form~~ form of proxy to holders of at least

A-3.

Table of Contents

the percentage of the corporation's voting shares required under applicable law to carry any such proposal, or, in the case of a nomination or nominations, have delivered a proxy statement and form of proxy to holders of a percentage of the corporation's voting shares reasonably believed by such stockholder or beneficial owner to be sufficient to elect the nominee or nominees proposed to be nominated by such stockholder, and must, in either case, have included in such materials the Solicitation Notice, and (iv) if no Solicitation Notice relating thereto has been timely provided pursuant to this section, the stockholder or beneficial owner proposing such business or nomination must not have solicited a number of proxies sufficient to have required the delivery of such a Solicitation Notice under this Section 5. To be timely, a stockholder's notice shall be delivered to the Secretary at the principal executive offices of the Corporation not later than the close of business on the ninetieth (90th) day nor earlier than the close of business on the one hundred twentieth (120th) day prior to the first anniversary of the preceding year's annual meeting; provided, however, that in the event that the date of the annual meeting is advanced more than thirty (30) days prior to or delayed by more than thirty (30) days after the anniversary of the preceding year's annual meeting, notice by the stockholder to be timely must be so delivered not earlier than the close of business on the one hundred twentieth (120th) day prior to such annual meeting and not later than the close of business on the later of the ninetieth (90th) day prior to such annual meeting or the tenth (10th) day following the day on which public announcement of the date of such meeting is first made. In no event shall the public announcement of an adjournment of an annual meeting commence a new time period for the giving of a stockholder's notice as described above. Such stockholder's notice shall set forth: (A) as to each person whom the stockholder proposed to nominate for election or reelection as a director all information relating to such person that is required to be disclosed in solicitations of proxies for election of directors in an election contest, or is otherwise required, in each case pursuant to Regulation 14A under the Securities Exchange Act of 1934, as amended (the "1934 Act") and Rule ~~14a-11~~

4(d)

thereunder (including such person's written consent to being named in the proxy statement as a nominee and to serving as a director if elected); (B) as to any other business that the stockholder proposes to bring before the meeting, a brief description of the business desired to be brought before the meeting, the reasons for conducting such business at the meeting and any material interest in such business of such stockholder and the beneficial owner, if any, on whose behalf the proposal is made; and (C) as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the nomination or proposal is made (±

i

(i) the name and address of such stockholder, as they appear on the corporation's books, and of such beneficial owner, (ii) the class and number of shares of the corporation which are owned beneficially and of record by such stockholder and such beneficial owner, and (iii) whether either such stockholder or beneficial owner intends to deliver a proxy statement and form of proxy to holders of, in the case of the proposal, at least the percentage of the corporation's voting shares required under applicable law to carry the proposal or, in the case of a nomination or nominations, a sufficient number of holders of the corporation's voting shares to elect such nominee or nominees (an affirmative statement of such intent, a Solicitation Notice).

(c) Notwithstanding anything in the ~~second~~ third

sentence of Section ~~§~~

5

(b) of these Bylaws to the contrary, in the event that the number of directors to be elected to the Board of Directors of the Corporation is increased and there is no public announcement naming all of the nominees for director or specifying the size of the increased Board of Directors made by the corporation at least one hundred (100) days prior to the first anniversary of the preceding year's annual meeting, a stockholder's notice required by this Section 5 shall also be considered timely, but only with respect to nominees for any new positions created by such increase, if it shall be delivered to the Secretary at the principal executive offices of the corporation not later than the close of business on the tenth (10th) day following the day on which such public announcement is first made by the corporation.

(d) Only such persons who are nominated in accordance with the procedures set forth in this Section 5 shall be eligible to serve as directors and only such business shall be conducted at a meeting of stockholders as shall have been brought before the meeting in accordance with the procedures set forth in this Section 5. Except as otherwise provided by law, the chairman of the meeting shall have the power and duty to determine whether a nomination or any business proposed to be brought before the meeting was made, or proposed, as the case may be, in accordance with the procedures set forth in these Bylaws and, if any proposed nomination or business is not in compliance with these Bylaws, to declare that such defective proposal or nomination shall not be presented for stockholder action at the meeting and shall be disregarded.

(e) Notwithstanding the foregoing provisions of this Section 5, in order to include information with respect to a stockholder proposal in the proxy statement and form of proxy for a stockholders meeting, ~~stockholders must provide notice as required by the regulations promulgated under the 1934 Act.~~ a stockholder must also comply with all applicable requirements of the 1934 Act and the rules and regulations thereunder with respect to

A-4.

Table of Contents

matters set forth in this Section 5. Nothing in these Bylaws shall be deemed to affect any rights of stockholders to request inclusion of proposals in the corporation

s
proxy statement pursuant to Rule 14a-8 under the 1934 Act.

(f) For purposes of this Section 5, ~~public announcement~~ shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or comparable national news service or in a document publicly ~~filed~~ filed by the corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the 1934 Act.

Section 6. Special Meetings.

(a) Special meetings of the stockholders of the corporation may be called, for any purpose or purposes, by (±
i) the Chairman of the Board of Directors, (ii
) the Chief Executive Officer, ~~or (2~~
iii
) the Board of Directors pursuant to a resolution adopted by a majority of the total number of authorized directors (whether or not there exist any vacancies in previously authorized directorships at the time any such resolution is presented to the Board of Directors for adoption)
or (iv) any stockholder who holds in excess of 15% of the corporation s outstanding voting stock on an as converted basis.

(b) If a special meeting is properly called by any person or persons other than the Chairman of the Board of Directors, the Chief Executive Officer or the Board of Directors, the request shall be in writing, specifying the general nature of the business proposed to be transacted, together with any information required by the Securities and Exchange Commission, and shall be delivered personally or sent by certified or registered mail ~~or by telegraphic or other facsimile transmission to (1) the Board of Directors e/o of~~ return receipt requested, to the Chairman of the Board of Directors ~~and (2)~~, the Chief Executive Officer, or the Secretary of the corporation. No business may be transacted at such special meeting otherwise than specified in such notice. The Board of Directors shall determine the time and place of such special meeting, which shall be held not ~~less than thirty five (35) nor more than one hundred twenty (120~~ sixty (60) days after the date of the receipt of the request. Upon determination of the time and place of the meeting, the ~~officer receiving the request~~ Secretary shall cause a notice of meeting to be given to the stockholders entitled to vote, in accordance with the provisions of Section 7 of these Bylaws. ~~If the notice is not given within one hundred (100) days after the receipt of the request, the person or persons properly~~

~~requesting the meeting may set the time and place of the meeting and give the notice.~~ Nothing contained in this paragraph (b) shall be construed as limiting, fixing, or affecting the time when a meeting of stockholders called by action of the Board of Directors may be held.

(c) Nominations of persons for election to the Board of Directors may be made at a special meeting of stockholders called by the Chairman of the Board of Directors, the Chief Executive Officer or the Board of Directors

at which directors are to be elected pursuant to the corporation's notice of meeting (i) by or at the direction of the Board of Directors or (ii) by any stockholder of the corporation who is a stockholder of record at the time of giving notice provided for in ~~these Bylaws~~

this paragraph

who shall be entitled to vote at the meeting and who complies with the notice procedures set forth in this Section 6(c). In the event the corporation calls a special meeting of stockholders for the purpose of electing one or more directors to the Board of Directors, any such stockholder may nominate a person or persons (as the case may be), for election to such position(s) as specified in the corporation's notice of meeting, if the stockholder's notice required by

the last sentence of

Section 5(b) of these Bylaws shall be delivered to the Secretary at the principal executive offices of the corporation not earlier than the close of business on the one hundred twentieth (120th) day prior to such special meeting and not later than the close of business on the later of the ninetieth (90th) day prior to such meeting or the tenth (10th) day following the day on which public announcement is first made of the date of the special meeting and of the nominees proposed by the Board of Directors to be elected at such meeting. In no event shall the public announcement of an adjournment of a special meeting commence a new time period for the giving of a stockholder's notice as described above.

(d)

Notwithstanding the foregoing provisions of this Section 6, a stockholder must also comply with all applicable requirements of the 1934 Act and the rules and regulations thereunder with respect to matters set forth in this Section 6. Nothing in these Bylaws shall be deemed to affect any rights of stockholders to request inclusion of proposals in the corporation's proxy statement pursuant to Rule 14a-8 under the 1934 Act.

Section 7. Notice of Meetings. Except as otherwise provided by ~~law or the Certificate of Incorporation, written~~

, notice

, given in writing or by electronic transmission,

of each meeting of stockholders shall be given not less than ten (10) nor more than sixty (60) days before the date of the meeting to each stockholder entitled to vote at

Table of Contents

such meeting, such notice to specify the place,

if any,

date and hour ~~and~~

, in the case of special meetings, the

purpose or purposes of the meeting

, and the means of remote communications, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at any such meeting. If mailed, notice is given when deposited in the United States mail, postage prepaid, directed to the stockholder at such stockholder's address as it appears on the records of the corporation

. Notice of the time, place

, if any,

and purpose of any meeting of stockholders may be ~~waives.~~

waived

in writing, signed by the person entitled to notice thereof,

or by electronic transmission by such person,

either before or after such meeting, and will be waived by any stockholder by his attendance thereat in person

, by remote communication, if applicable,

or by proxy, except when the stockholder attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Any stockholder so waiving notice of such meeting shall be bound by the proceedings of any such meeting in all respects as if due notice thereof had been given.

Section 8. Quorum. At all meetings of stockholders, except where otherwise provided by statute or by the Certificate of Incorporation, or by these Bylaws, the presence, in person

, by remote communication, if applicable,

or by proxy duly authorized, of the holders of a majority of the outstanding shares of stock entitled to vote shall constitute a quorum for the transaction of business. In the absence of a quorum, any meeting of stockholders may be adjourned, from time to time, either by the chairman of the meeting or by vote of the holders of a majority of the shares represented thereat, but no other business shall be transacted at such meeting. The stockholders present at a duly called or convened meeting, at which a quorum is present, may continue to transact business until adjournment, notwithstanding the withdrawal of enough stockholders to leave less than a quorum. Except as otherwise provided by statute,

or by applicable stock exchange or Nasdaq rules, or by

the Certificate of Incorporation or these Bylaws, in all matters other than the election of directors, the affirmative vote of the majority of shares present in person

, by remote communication, if applicable,

or represented by proxy at the meeting and entitled to vote

generally

on the subject matter shall be the act of the stockholders. Except as otherwise provided by statute, the Certificate of Incorporation or these Bylaws, directors shall be elected by a plurality of the votes of the shares present in person

, by remote communication, if applicable,

or represented by proxy at the meeting and entitled to vote

generally

on the election of directors. Where a separate vote by a class or classes or series is required, except where otherwise provided by the statute or by the Certificate of Incorporation or these Bylaws, a majority of the outstanding shares of such class or classes or series, present in person

, by remote communication, if applicable,

or represented by proxy

duly authorized

, shall constitute a quorum entitled to take action with respect to that vote on that matter ~~and~~,

Except where otherwise provided by ~~the~~ statute or by the Certificate of Incorporation or these Bylaws, the affirmative vote of the majority (plurality, in the case of the election of directors) of ~~the votes cast by the holders of~~ shares of such class or classes or series

present in person, by remote communication, if applicable, or represented by proxy at the meeting shall be the act of such class or classes or series.

Section 9. Adjournment and Notice of Adjourned Meetings. Any meeting of stockholders, whether annual or special, may be adjourned from time to time either by the chairman of the meeting or by the vote of a majority of the shares ~~casting votes~~

present in person, by remote communication, if applicable, or represented by proxy at the meeting.

When a meeting is adjourned to another time or place,

if any,

notice need not be given ~~of~~

of

the adjourned meeting if the time and place

, if any,

thereof are announced at the meeting at which the adjournment is taken. At the adjourned meeting, the corporation may transact any business which might have been transacted at the original meeting. If the adjournment is for more than thirty (30) days or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

Section 10. Voting Rights. For the purpose of determining those stockholders entitled to vote at any meeting of the stockholders, except as otherwise provided by law, only persons in whose names shares stand on the stock records of the corporation on the record date, as provided in Section 12 of these Bylaws, shall be entitled to vote at any meeting of stockholders. Every person entitled to vote

or execute consents

shall have the right to do so either in person

, by remote communication, if applicable,

or by an agent or agents authorized by a proxy granted in accordance with Delaware law. An agent so appointed need not be a stockholder. No proxy shall be voted after ~~three~~

three

(3) years from its date of creation unless the proxy provides for a longer period.

Section 11. Joint Owners of Stock. If shares or other securities having voting power stand of record in the names of two (2) or more persons, whether fiduciaries, members of a partnership, joint tenants, tenants in common, tenants by the entirety-

, or otherwise, or if two (2) or more persons have the same fiduciary relationship respecting the same shares, unless the Secretary is given written notice to the contrary and is furnished with a copy of the instrument

Table of Contents

or order appointing them or creating the relationship wherein it is so provided, their acts with respect to voting shall have the following effect: (a) if only one (1) votes, his act binds all; (b) if more than one (1) votes, the act of the majority so voting binds all; (c) if more than one (1) votes, but the vote is evenly split on any particular matter, each faction may vote the securities in question proportionally, or may apply to the Delaware Court of Chancery for relief as provided in the DGCL, Section 217(b). If the instrument filed with the Secretary shows that any such tenancy is held in unequal interests, a majority or even-split for the purpose of subsection (c) shall be a majority or even-split in interest.

Section 12. List of Stockholders. The Secretary shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at said meeting, arranged in alphabetical order, showing; the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting,

(a) on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of the meeting, or (b)

~~during ordinary business hours, for a period of at least ten (10) days prior to the meeting, either at a place within the city where the meeting is to be held, which place shall be specified in the notice of the meeting, or, if not specified, at the place where the meeting is to be held. The list shall be produced and kept at the time and place of meeting during the whole time thereof and may be inspected by any stockholder who is present.~~

at the principal place of business of the corporation. In the event that the corporation determines to make the list available on an electronic network, the corporation may take reasonable steps to ensure that such information is available only to stockholders of the corporation. The list shall be open to examination of any stockholder during the time of the meeting as provided by law.

Section 13. Action Without Meeting.

~~(a) Unless otherwise provided in the Certificate of Incorporation, any action required by statute to be taken at any~~
No action shall be taken by the stockholders except at an

~~annual or special meeting of the stockholders, or any action which may be taken at any annual or special meeting of the stockholders, may be taken without a meeting, without prior notice and without a vote, if a consent in writing, setting forth the action so taken, shall be signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted~~

stockholders called in accordance with these Bylaws, and no action shall be taken by the stockholders by written consent or by electronic transmission.

~~(b) Every written consent shall bear the date of signature of each stockholder who signs the consent, and no written consent shall be effective to take the corporate action referred to therein unless, within sixty (60) days of the earliest dated consent delivered to the corporation in the manner herein required, written consents signed by a sufficient number of stockholders to take action are delivered to the corporation by delivery to its registered office in the State of Delaware, its principal place of business or an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded. Delivery made to a corporation's registered office shall be by hand or by certified or registered mail, return receipt requested.~~

~~(c) Prompt notice of the taking of the corporate action without a meeting by less than unanimous written consent shall be given to those stockholders who have not consented in writing and who, if the action had been taken at a meeting, would have been entitled to notice of the meeting if the record date for such meeting had been the date that written consents signed by a sufficient number of stockholders to take action were delivered to the corporation as provided in~~

~~Section 228 (e) of the DGCL. If the action which is consented to is such as would have required the filing of a certificate under any section of the DGCL if such action had been voted on by stockholders at a meeting thereof, then the certificate filed under such section shall state, in lieu of any statement required by such section concerning any vote of stockholders, that written consent has been given in accordance with Section 228 of the DGCL~~

~~(d) Notwithstanding the foregoing, no such action by written consent may be taken following the closing of the initial public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended (the "1933 Act"), covering the offer and sale of Common Stock of the corporation (the "Initial Public Offering").~~

A-7.

Table of Contents

Section 14. Organization.

~~(a) The chairman for meetings of stockholders shall be such person as the Board may designate, or, in the absence of such person, the Chief Executive Officer, or, in the absence of such person, such person as may be chosen by the holders of~~

At every meeting of stockholders, the Chairman of the Board of Directors, or, if a Chairman has not been appointed or is absent, the President, or, if the President is absent, a chairman of the meeting chosen by

a majority

in interest

of the ~~shares~~

stockholders

entitled to vote ~~who are~~

,
present; in person or ~~represented~~ by proxy, ~~at the meeting~~
shall act as chairman.

The Secretary, or, in his
or her

absence, an Assistant Secretary directed to do so by the President, shall act as secretary of the meeting.

(b) The Board of Directors of the corporation shall be entitled to make such rules or regulations for the conduct of meetings of stockholders as it shall deem necessary, appropriate or convenient. Subject to such rules and regulations of the Board of Directors, if any, the chairman of the meeting shall have the right and authority to prescribe such rules, regulations and procedures and to do all such acts as, in the judgment of such chairman, are necessary, appropriate or convenient for the proper conduct of the meeting, including, without limitation, establishing an agenda or order of business for the meeting, rules and procedures for maintaining order at the meeting and the safety of those present, limitations on participation in such meeting to stockholders of record of the corporation and their duly authorized and constituted proxies and such other persons as the chairman shall permit, restrictions on entry to the meeting after the time fixed for the commencement thereof, limitations on the time allotted to questions or comments by participants and regulation of the opening and closing of the polls for balloting on matters which are to be voted on by ballot. The date and time of the opening and closing of the polls for each matter upon which the stockholders will vote at the meeting shall be announced at the meeting.

Unless and to the extent determined by the Board of Directors or the chairman of the meeting, meetings of stockholders shall not be required to be held in accordance with ~~rule-s~~

rules

of parliamentary procedure.

ARTICLE IV

DIRECTORS

Section 15. Number and Term of Office. The authorized number of directors of the corporation shall be fixed in accordance with the Certificate of Incorporation. Directors need not be stockholders unless so required by the Certificate of Incorporation. If for any cause, the directors shall not have been elected at an annual meeting, they may be elected as soon thereafter as convenient at a special meeting of the stockholders called for that purpose in the manner provided in these Bylaws.

Section 16. Powers. The powers of the corporation shall be exercised, its business conducted and its property controlled by the Board of Directors, except as may be otherwise provided by statute or by the Certificate of Incorporation.

[If Proposal 2 is not approved at the 2007 Annual Meeting of Stockholders, Section 17 will continue to read as follows:]

~~Section 17.~~

Section 17. ____

Classes of Directors. Subject to the rights of the holders of any series of Preferred Stock to elect additional directors under specified circumstances, following the closing of the Initial Public Offering, the directors shall be divided into three classes designated as Class I, Class II and Class III, respectively. Directors shall be assigned to each class in accordance with a resolution or resolutions adopted by the Board of Directors. At the first annual meeting of stockholders following the closing of the Initial Public Offering, the term of office of the Class I directors shall expire and Class I directors shall be elected for a full term of three years. At the second annual meeting; of stockholders following the closing of the Initial Public Offering, the term of office of the Class II directors shall expire and Class II directors shall be elected for a full term of three years. At the third annual meeting of stockholders following the closing of the Initial Public Offering, the term of office of the Class III directors shall expire and Class III directors shall be elected for a full term of three years. At each succeeding annual meeting; of stockholders, directors shall be elected for a full term of three years to succeed the directors of the class whose terms expire at such annual meeting.

A-8.

Table of Contents

Notwithstanding the foregoing provisions of this section, each director shall serve until his successor is duly elected and qualified or until his death, resignation or removal. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

[If Proposal 2 is approved at the 2007 Annual Meeting of Stockholders, Section 17 will read as follows:]

Section 17. Election.

(a)

Subject to the rights of the holders of any series of Preferred Stock to elect additional directors under specified circumstances, directors shall be elected at each annual meeting of stockholders for a term of one year.

(b)

Notwithstanding the foregoing provisions of this section, each director shall serve until his or her successor is duly elected and qualified or until his or her earlier death, resignation or removal. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

Section 18. Vacancies.

(a) Unless otherwise provided in the Certificate of Incorporation, and subject to the rights of the holders of any series of Preferred Stock, any vacancies on the Board of Directors resulting from death, resignation, disqualification, removal or other causes and any newly created directorships resulting from any increase in the number of directors shall, unless the Board of Directors determines by resolution that any such vacancies or newly created directorships shall be filled by stockholders, be filled only by the affirmative vote of a majority of the directors then in office, even though less than a quorum of the Board of Directors. Any director elected in accordance with the preceding sentence shall hold office for the remainder of the full term of the director for which the vacancy was created or occurred and until such director's successor shall have been elected and qualified. A vacancy in the Board of Directors shall be deemed to exist under this Section 18 in the case of the death, removal or resignation of any director.

(b) If at the time of filling any vacancy or any newly created directorship, the directors then in office shall constitute less than a majority of the whole board (as constituted immediately prior to any such increase), the Delaware Court of Chancery may, upon application of any stockholder or stockholders holding at least ten percent (10%) of the total number of the shares at the time outstanding having the right to vote for such directors, summarily order an election to be held to fill any such vacancies or newly created directorships, or to replace the directors chosen by the directors then in offices as aforesaid, which election shall be governed by Section 211 of the DGCL.

Section 19. Resignation. Any director may resign at any time by delivering his ~~written resignation~~ or her notice in writing or by electronic transmission

to the Secretary, such resignation to specify whether it will be effective at a particular time, upon receipt by the Secretary or at the pleasure of the Board of Directors. If no such specification is made, it shall be deemed effective at the pleasure of the Board of Directors. When one or more directors shall resign from the Board of Directors, effective at a future date, a majority of the directors then in office, including those who have so resigned, shall have power to

fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective, and each Director so chosen shall hold office for the unexpired portion of the term of the Director whose place shall be vacated and until his successor shall have been duly elected and qualified.

Section 20. Removal.

~~(a) Neither the Board of Directors nor any individual director may be removed without cause.~~

Section 20.

~~(b)~~

Removal.

Subject to any limitation imposed by law and the rights of any series of Preferred Stock to elect additional directors under specified circumstances, any individual director or directors may be removed with or without cause by the affirmative vote of a majority of the voting power of the corporation's issued and outstanding voting stock entitled to vote at an election of ~~directors~~ such director.

A-9.

Table of Contents

Section 21. Meetings.

~~(a) — **Annual Meetings.** The annual meeting of the Board of Directors shall be held immediately before or after the annual meeting of stockholders and at the place where such meeting is held. No notice of an annual meeting of the Board of Directors shall be necessary and such meeting shall be held for the purpose of electing officers and transacting such other business as may lawfully come before it.~~

(a) ~~(b)~~ **Regular Meetings.** Unless otherwise restricted by the Certificate of Incorporation, regular meetings of the Board of Directors may be held at any time or date and at any place within or without the State of Delaware which has been designated by the Board of Directors and publicized among all directors. ~~No formal~~, either orally or in writing, by telephone, including a voice-messaging system or other system designed to record and communicate messages, facsimile, telegraph or telex, or by electronic mail or other electronic means. No further notice shall be required for regular meetings of the Board of Directors.

(b) ~~(c)~~ **Special Meetings.** Unless otherwise restricted by the Certificate of Incorporation, special meetings of the Board of Directors may be held at any time and place within or without the State of Delaware whenever called by the ~~President or any two~~ Chairman of the Board, the Chief Executive Officer or a majority of the authorized number of directors.

(c) ~~(d)~~ **Telephone Meetings by Electronic Communications Equipment**

. Any member of the Board of Directors, or of any committee thereof, may participate in a meeting by means of conference telephone or ~~similar~~ other communications equipment by means of which all persons participating in the meeting can hear each other, and participation in a meeting by such means shall constitute presence in person at such meeting.

(d) ~~(e)~~ **Notice of Special**

Meetings. Notice of the time and place of all special meetings of the Board of Directors shall be orally or in writing, by telephone, including a voice messaging system or other system or technology designed to record and communicate messages, facsimile, telegraph or telex, or by electronic mail or other electronic means, during normal business hours, at least twenty-four (24) hours before the date and time of the meeting, ~~or sent in writing to each director~~

. If notice is sent by US mail, it shall be sent

by first class mail, charges prepaid, at least three (3) days before the date of the meeting. Notice of any meeting may be waived in writing

, or by electronic transmission,

at any time before or after the meeting and will be waived by any director by attendance thereat, except when the director attends the meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened.

(e) ~~(f)~~ **Waiver of Notice.** The transaction of all business at any meeting of the Board of Directors, or any committee thereof, however called or noticed, or wherever held, shall be as valid as though had at a meeting duly held after regular call and notice, if a quorum be present and if, either before or after the meeting, each of the directors not present who did not receive notice

shall sign a written waiver of notice
or shall waive notice by electronic transmission.

All such waivers shall be filed with the corporate records or made a part of the minutes of the meeting.

Section 22. Quorum and Voting.

(a) Unless the Certificate of Incorporation requires a greater number, and except with respect to questions related to indemnification ~~questions~~ arising under Section 43 ~~hereof~~, for which a quorum shall be one-third of the exact number of directors fixed from time to time ~~in accordance with the Certificate of Incorporation~~, a quorum of the Board of Directors shall consist of a majority of the exact number of directors fixed from time to time by the Board of Directors in accordance with the Certificate of Incorporation; *provided, however*, at any meeting whether a quorum be present or otherwise, a majority of the directors present may adjourn from time to time until the time fixed for the next regular meeting of the Board of Directors, without notice other than by announcement at the meeting.

(b) At each meeting of the Board of Directors at which a quorum is present, all questions and business shall be determined by the affirmative vote of a majority of the directors present, unless a different vote be required by law, the Certificate of Incorporation or these Bylaws.

A-10.

Table of Contents

Section 23. Action Without Meeting. Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, any action required or permitted to be taken at any meeting of the Board of Directors or of any committee thereof may be taken without a meeting, if all members of the Board of Directors or committee, as the case may be, consent thereto in writing,

or by electronic transmission,

and such writing or writings

or transmission or transmissions

are filed with the minutes of proceedings of the Board of Directors or committee

. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form.

Section 24. Fees and Compensation. Directors shall be entitled to such compensation for their services as may be approved by the Board of Directors, including, if so approved, by resolution of the Board of Directors, a fixed sum and expenses of attendance, if any, for attendance at each regular or special meeting of the Board of Directors and at any meeting of a committee of the Board of Directors. Nothing herein contained shall be construed to preclude any director from serving the corporation in any other capacity as an officer, agent, employee, or otherwise and receiving compensation therefor.

Section 25. Committees.

(a) Executive Committee. The Board of Directors may appoint an Executive Committee to consist of one (1) or more members of the Board of Directors. The Executive Committee, to the extent permitted by law and provided in the resolution of the Board of Directors shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the corporation, and may authorize the seal of the corporation to be affixed to all papers which may require it; but no such committee shall have the power or authority in reference to (± i

) approving or adopting, or recommending to the stockholders, any action or matter

(other than the election or removal of directors)

expressly required by the DGCL to be submitted to stockholders for approval, or (ii) adopting, amending or repealing any bylaw of the corporation.

(b) Other Committees. The Board of Directors may, from time to time, appoint such other committees as may be permitted by law. Such other committees appointed by the Board of Directors shall consist of one (1) or more members of the Board of Directors and shall have such powers and perform such duties as may be prescribed by the resolution or resolutions creating such committees, but in no event shall any such committee have the powers denied to the Executive Committee in these Bylaws.

(c) Term. ~~Each member of a committee of the Board of Directors shall serve a term on the committee coexistent with such member's term on the Board of Directors.~~ The Board of Directors, subject to any requirements of any outstanding series of Preferred Stock and the provisions of subsections (a) or (b) of this ~~Bylaw,~~
Section 25,

may at any time increase or decrease the number of members of a committee or terminate the existence of a committee. The membership of a committee member shall terminate on the date of his death or voluntary resignation from the committee or from the Board of Directors. The Board of Directors may at any time for any reason remove any individual committee member and the Board of Directors may fill any committee vacancy created by death, resignation, removal or increase in the number of members of the committee. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at

any meeting of the committee, and, in addition, in the absence or disqualification of any member ~~of~~ of

a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not he or they constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of any such absent or disqualified member.

(d) Meetings. Unless the Board of Directors shall otherwise provide, regular meetings of the Executive Committee or any other committee appointed pursuant to this Section 25 shall be held at such times and places as are determined by the Board of Directors, or by any such committee, and when notice thereof has been given to each member of such committee, no further notice of such regular meetings need be given thereafter. Special meetings of any such committee may be held at any place which has been determined from time to time by such committee, and may be called by any director who is a member of such committee, upon ~~written~~ notice to the members of such committee of the time and place of such special meeting given in the manner provided for the giving of ~~written~~ notice to members of the Board of Directors of the time and place of special meetings of the Board of Directors. Notice of any special meeting of any committee may be waived in writing at any time before or after the meeting and will be waived by any director by attendance thereat, except when the director attends such special meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not

A-11.

Table of Contents

lawfully called or convened.

Unless otherwise provided by the Board of Directors in the resolutions authorizing the creation of the committee, a majority of the authorized number of members of any such committee shall constitute a quorum for the transaction of business, and the act of a majority of those present at any meeting at which a quorum is present shall be the act of such committee.

Section 26. Organization. At every meeting of the directors, the Chairman of the Board of Directors

,
or, if a Chairman has not been appointed or is absent, the
Chief Executive Officer (if a director), or, if the Chief Executive Officer is absent, the
President (if a director), or if the President is absent, the most senior Vice President (if a director), or, in the absence
of any such person, a chairman of the meeting chosen by a majority of the directors present, shall preside over the
meeting. The Secretary, or in his absence, any Assistant Secretary
or other officer or director
directed to do so by the President, shall act as secretary of the meeting.

ARTICLE V

OFFICERS

Section 27. Officers Designated. The officers of the corporation shall include, if and when designated by the Board of Directors, the Chief Executive Officer, the President, one or more Vice Presidents, the Secretary, the Chief Financial Officer;

and
the Treasurer ~~and the Controller~~. The Board of Directors may also appoint one or more Assistant Secretaries;
and

Assistant Treasurers, ~~Assistant Controllers~~ and such other officers and agents with such powers and duties as it shall deem necessary. The Board of Directors may assign such additional titles to one or more of the officers as it shall deem appropriate. Any one person may hold any number of offices of the corporation at any one time unless specifically prohibited therefrom by law. The salaries and other compensation of the officers of the corporation shall be fixed by or in the manner designated by the Board of Directors.

Section 28. Tenure and Duties of Officers.

(a) General. All officers shall hold office at the pleasure of the Board of Directors and until their successors shall have been duly elected and qualified, unless sooner removed. Any officer elected or appointed by the Board of Directors may be removed at any time by the Board of Directors. If the office of any officer becomes vacant for any reason, the vacancy may be filled by the Board of Directors.

(b)
Duties of Chief Executive Officer.

The Chief Executive Officer shall preside at all meetings of the stockholders and at all meetings of the Board of Directors, unless the Chairman of the Board of Directors has been appointed and is present. The Chief Executive Officer shall be the chief executive officer of the corporation and shall, subject to the control of the Board of Directors, have general supervision, direction and control of the business and officers of the corporation. To the extent that a Chief Executive Officer has been appointed, all references in these Bylaws to the President shall be deemed references to the Chief Executive Officer. The Chief Executive Officer shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers, as the Board of Directors shall

designate from time to time.

(c)

Duties of President.

The President shall preside at all meetings of the stockholders and at all meetings of the Board of Directors, unless the Chairman of the Board of Directors or the Chief Executive Officer has been appointed and is present. Unless another officer has been appointed Chief Executive Officer of the corporation, the President shall be the chief executive officer of the corporation and shall, subject to the control of the Board of Directors, have general supervision, direction and control of the business and officers of the corporation. The President shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers, as the Board of Directors shall designate from time to time.

(d) ~~(e)~~ **Duties of Vice Presidents.** The Vice Presidents may assume and perform the duties of the President in the absence or disability of the President or whenever the office of President is vacant. The Vice Presidents shall perform other duties commonly incident to their office and shall also perform such other duties and have such other powers as the Board of Directors or the Chief Executive Officer, or, if the Chief Executive Officer has not been appointed or is absent, the President shall designate from time to time.

(e) ~~(d)~~ **Duties of Secretary.** The Secretary shall attend all meetings of the stockholders and of the Board of Directors and shall record all acts and proceedings thereof in the minute book of the corporation. The

A-12.

Table of Contents

Secretary shall give notice in conformity with these Bylaws of all meetings of the stockholders and of all meetings of the Board of Directors and any committee thereof requiring notice. The Secretary shall perform all other duties ~~given him~~

provided for

in these Bylaws and other duties commonly incident to ~~his~~
the

office and shall also perform such other duties and have such other powers, as the Board of Directors shall designate from time to time. The President may direct any Assistant Secretary or other officer

to assume and perform the duties of the Secretary in the absence or disability of the Secretary, and each Assistant Secretary shall perform other duties commonly incident to ~~his~~
the

office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time.

(f) ~~(e)~~Duties of Chief Financial Officer. The Chief Financial Officer shall keep or cause to be kept the books of account of the corporation in a thorough and proper manner and shall render statements of the financial affairs of the corporation in such form and as often as required by the Board of Directors or the President. The Chief Financial Officer, subject to the order of the Board of Directors, shall have the custody of all funds and securities of the corporation. The Chief Financial Officer shall perform other duties commonly incident to ~~his~~
the

office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time. The President may direct the Treasurer or any Assistant Treasurer, or the Controller or any Assistant Controller

,
to assume and perform the duties of the Chief Financial Officer in the absence or disability of the Chief Financial Officer, and each Treasurer and Assistant Treasurer and each Controller and Assistant Controller shall perform other duties commonly incident to ~~his~~
the

office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time.

Section 29. Delegation of Authority. The Board of Directors may from time to time delegate the powers or duties of any officer to any other officer or agent, notwithstanding any provision hereof.

Section 30. Resignations. Any officer may resign at any time by giving ~~written~~ notice in writing or by electronic transmission

to the Board of Directors or to the President or to the Secretary. Any such resignation shall be effective when received by the person or persons to whom such notice is given, unless a later time is specified therein, in which event the resignation shall become effective at such later time. Unless otherwise specified in such notice, the acceptance of any such resignation shall not be necessary to make it effective. Any resignation shall be without prejudice to the rights, if any, of the corporation under any contract with the resigning officer.

Section 31. Removal. Any officer may be removed from office at any time, either with or without cause, by the affirmative vote of a majority of the directors in office at the time, or by the unanimous written consent of the directors in office at the time, or by any committee or by the Chief Executive Officer or by other superior officers upon whom such power of removal may have been conferred by the Board of Directors.

ARTICLE VI

EXECUTION OF CORPORATE INSTRUMENTS AND VOTING OF SECURITIES OWNED BY THE CORPORATION

Section 32. Execution of Corporate Instruments. The Board of Directors may, in its discretion, determine the method and designate the signatory officer or officers, or other person or persons, to execute on behalf of the corporation any corporate instrument or document, or to sign on behalf of the corporation the corporate name without limitation, or to enter into contracts on behalf of the corporation, except where otherwise provided by law or these Bylaws, and such execution or signature shall be binding upon the corporation. ~~All checks and drafts drawn on banks or other depositories on funds to the credit of the corporation or in special accounts of the corporation shall be signed by such person or persons as the Board of Directors shall authorize so to do.~~

All checks and drafts drawn on banks or other depositories on funds to the credit of the corporation or in special accounts of the corporation shall be signed by such person or persons as the Board of Directors shall authorize so to do.

Unless authorized or ratified by the Board of Directors or within the agency power of an officer, no officer, agent or employee shall have any power or authority to bind the corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or for any amount.

A-13.

Table of Contents

Section 33. Voting of Securities Owned by the Corporation. All stock and other securities of other corporations owned or held by the corporation for itself, or for other parties in any capacity, shall be voted, and all proxies with respect thereto shall be executed, by the person authorized so to do by resolution of the Board of Directors, or, in the absence of such authorization, by

the Chairman of the Board of Directors,
the Chief Executive Officer, the President, or any Vice President.

ARTICLE VII

SHARES OF STOCK

Section 34. Form and Execution of Certificates.

The shares of the corporation shall be represented by certificates, or shall be uncertificated.

Certificates for the shares of stock ~~of the corporation~~

, if any,

shall be in such form as is consistent with the Certificate of Incorporation and applicable law. Every holder of stock represented by certificate

in the corporation shall be entitled to have a certificate signed by or in the name of the corporation by the Chairman of the Board of Directors, or

the President or any Vice President and by the Treasurer or Assistant Treasurer or the Secretary or Assistant Secretary, certifying the number of shares owned by him in the corporation. Any or all of the signatures on the certificate may be facsimiles. In case any officer, transfer agent, or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent, or registrar before such certificate is issued, it may be issued with the same effect as if he were such officer, transfer agent, or registrar at the date of issue. ~~Each certificate shall state upon the face or back thereof, in full or in summary, all of the powers, designations, preferences, and rights, and the limitations or restrictions of the shares authorized to be issued or shall, except as otherwise required by law, set forth on the face or back a statement that the corporation will furnish without charge to each stockholder who so requests the powers, designations, preferences and relative, participating, optional, or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights. Within a reasonable time after the issuance or transfer of uncertificated stock, the corporation shall send to the registered owner thereof a written notice containing the information required to be set forth or stated on certificates pursuant to this section or otherwise required by law or with respect to this section a statement that the corporation will furnish without charge to each stockholder who so requests the powers, designations, preferences and relative participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights. Except as otherwise expressly provided by law, the rights and obligations of the holders of certificates representing stock of the same class and series shall be identical.~~

Section 35. Lost Certificates. A new certificate or certificates shall be issued in place of any certificate or certificates theretofore issued by the corporation alleged to have been lost, stolen, or destroyed, upon the making of an affidavit of that fact by the person claiming the certificate of stock to be lost, stolen, or destroyed. The corporation may require, as a condition precedent to the issuance of a new certificate or certificates, the owner of such lost, stolen, or destroyed certificate or certificates, or ~~his~~

the owner s

legal representative, to agree to indemnify the corporation in such manner as it shall require or to give the corporation a surety bond in such form and amount as it may direct as indemnity against any claim that may be made against the corporation with respect to the certificate alleged to have been lost, stolen, or destroyed.

Section 36. Transfers.

(a) Transfers of record of shares of stock of the corporation shall be made only upon its books by the holders thereof, in person or by attorney duly authorized, and
, in the case of stock represented by certificate,
upon the surrender of a properly endorsed certificate or certificates for a like number of shares.

(b) The corporation shall have power to enter into and perform any agreement with any number of stockholders of any one or more classes of stock of the corporation to restrict the transfer of shares of stock of the corporation of any one or more classes owned by such stockholders in any manner not prohibited by the DGCL.

Section 37. Fixing Record Dates.

(a) in order that the corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, the Board of Directors may fix, in advance, a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of

A-14.

Table of Contents

Directors, and which record date shall, subject to applicable law, not be more than sixty (60) nor less than ten (10) days before the date of such meeting. If no record date is fixed by the Board of Directors, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or if notice is waived, at the close of business on the day next preceding the day on which the meeting is held. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; *provided, however*, that the Board of Directors may fix a new record date for the adjourned meeting.

~~(b) Prior to the Initial Public Offering, in order that the corporation may determine the stockholders entitled to consent to corporate action in writing without a meeting, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which date shall not be more than ten (10) days after the date upon which the resolution fixing the record date is adopted by the Board of Directors. Any stockholder of record seeking to have the stockholders authorize or take corporate action by written consent shall, by written notice to the Secretary, request the Board of Directors to fix a record date. The Board of Directors shall promptly, but in all events within ten (10) days after the date on which such a request is received, adopt a resolution fixing the record date. If no record date has been fixed by the Board of Directors within ten (10) days of the date on which such a request is received, the record date for determining stockholders entitled to consent to corporate action in writing without a meeting, when no prior action by the Board of Directors is required by applicable law, shall be the first date on which a signed written consent setting forth the action taken or proposed to be taken is delivered to the corporation by delivery to its registered office in the State of Delaware, its principal place of business or an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded. Delivery made to the corporation's registered office shall be by hand or by certified or registered mail, return receipt requested. If no record date has been fixed by the Board of Directors and prior action by the Board of Directors is required by law, the record date for determining stockholders entitled to consent to corporate action in writing without a meeting shall be at the close of business on the day on which the Board of Directors adopts the resolution taking such prior action.~~

(b) __

~~(e)~~ In order that the corporation may determine the stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights or the stockholders entitled to exercise any rights in respect of any change, conversion or exchange of stock, or for the purpose of any other lawful action, the Board of Directors may fix, in advance, a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted, and which record date shall be not more than sixty (60) days prior to such action. If no record date is fixed, the record date for determining stockholders for any such purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto.

Section 38. Registered Stockholders. The corporation shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends, and to vote as such owner, and shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of any other person whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

ARTICLE VIII

OTHER SECURITIES OF THE CORPORATION

Section 39. Execution of Other Securities. All bonds, debentures and other corporate securities of the corporation, other than stock certificates (covered in Section 34), may be signed by the Chairman of the Board of Directors, the

President or any Vice President, or such other person as may be authorized by the Board of Directors, and the corporate seal impressed thereon or a facsimile of such seal imprinted thereon and attested by the signature of the Secretary or an Assistant Secretary, or the Chief Financial Officer or Treasurer or an Assistant Treasurer;

;

provided, however, that where any such bond, debenture or other corporate security shall be authenticated by the manual signature, or where permissible facsimile signature, of a trustee under an indenture pursuant to which such bond, debenture or other corporate security shall be issued, the signatures of the persons signing and attesting the corporate seal on such bond, debenture or other corporate security may be the imprinted facsimile of the signatures of such persons. Interest coupons appertaining to any such bond, debenture or other corporate security, authenticated by a trustee as aforesaid, shall be signed by the Treasurer or an Assistant Treasurer of the corporation or such other person as may be authorized by the Board of Directors, or bear imprinted thereon the facsimile signature of such person. In case

A-15.

Table of Contents

any officer who shall have signed or attested any bond, debenture or other corporate security, or whose facsimile signature shall appear thereon or on any such interest coupon, shall have ceased to be such officer before the bond, debenture or other corporate security so signed or attested shall have been delivered, such bond, debenture or other corporate security nevertheless may be adopted by the corporation and issued and delivered as though the person who signed the same or whose facsimile signature shall have been used thereon had not ceased to be such officer of the corporation.

ARTICLE IX

DIVIDENDS

Section 40. Declaration of Dividends. Dividends upon the capital stock of the corporation, subject to the provisions of the Certificate of Incorporation and applicable law, if any, may be declared by the Board of Directors pursuant to law at any regular or special meeting. Dividends may be paid in cash, in property, or in shares of the capital stock, subject to the provisions of the Certificate of Incorporation and applicable law.

Section 41. Dividend Reserve. Before payment of any dividend, there may be set aside out of any funds of the corporation available for dividends such sum or sums as the Board of Directors from time to time, in their absolute discretion, think proper as a reserve or reserves to meet contingencies, or for equalizing dividends, or for repairing or maintaining any property of the corporation, or for such other purpose as the Board of Directors shall think conducive to the interests of the corporation, and the Board of Directors may modify or abolish any such reserve in the manner in which it was created.

ARTICLE X

FISCAL YEAR

Section 42. Fiscal Year. The fiscal year of the corporation shall be fixed by resolution of the Board of Directors.

ARTICLE XI

INDEMNIFICATION

Section 43. Indemnification of Directors, Executive Officers, Other Officers, Employees and Other Agents.

(a) Directors and Executive

Officers. The corporation shall indemnify its directors and officers to the fullest extent not prohibited by the DGCL or any other applicable law; *provided, however*, that the corporation may modify the extent of such indemnification by individual contracts with its directors and officers; and, *provided, further*, that the corporation shall not be required to indemnify any director or officer in connection with any proceeding (or part thereof) initiated by such person unless (4 i) such indemnification is expressly required to be made by law, (ii) the proceeding was authorized by the Board of Directors of the corporation, (iii) such indemnification is provided by the corporation, in its sole discretion, pursuant to the powers vested in the corporation under the DGCL or any other applicable law or (iv) such indemnification is required to be made under subsection (d).

(b) Other Employees and Other Agents. The corporation shall have power to indemnify its other employees and other agents as set forth in the DGCL or any other applicable law. The Board of Directors shall have the power to

delegate the determination of whether indemnification shall be given to any such person to such officers or other persons as the Board of Directors shall determine.

(c) **Expenses.** The corporation shall advance to any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he is or was a director or executive officer, of the corporation, or is or was serving at the request of the corporation as a director or executive officer of another corporation, partnership, joint venture, trust or other enterprise, prior to the final disposition of the proceeding, promptly following request therefor, all expenses incurred by any director or executive officer in connection with such

A-16.

Table of Contents

proceeding upon receipt of an undertaking by or on behalf of such person to repay said amounts if it should be determined ultimately that such person is not entitled to be indemnified under this Section 43 or otherwise.

Notwithstanding the foregoing, unless otherwise determined pursuant to paragraph (e) of this Section 43, no advance shall be made by the corporation to an officer of the corporation (except by reason of the fact that such officer is or was a director of the corporation in which event this paragraph shall not apply) in any action, suit or proceeding, whether civil, criminal, administrative or investigative, if a determination is reasonably and promptly made (1) by the Board of Directors by a majority vote of a quorum consisting of directors who were not parties to the proceeding, or (ii) if such quorum is not obtainable, or, even if obtainable, a quorum of disinterested directors so directs, by independent legal counsel in a written opinion, that the facts known to the decision-making party at the time such determination is made demonstrate clearly and convincingly that such person acted in bad faith or in a manner that such person did not believe to be in or not opposed to the best interests of the corporation.

(d) Enforcement. Without the necessity of entering into an express contract, all rights to indemnification and advances to directors and executive officers under this Bylaw shall be deemed to be contractual rights and be effective to the same extent and as if provided for in a contract between the corporation and the director or executive officer. Any right to indemnification or advances granted by this Section 43 to a director or executive officer shall be enforceable by or on behalf of the person holding such right in any court of competent jurisdiction if (1)

(i) the claim for indemnification or advances is denied, in whole or in part, or (ii) no disposition of such claim is made within ninety (90) days of request therefor. The claimant in such enforcement action, if successful in whole or in part, shall be entitled to be paid also the expense of prosecuting ~~his~~ the

claim. In connection with any claim for indemnification, the corporation shall be entitled to raise as a defense to any such action that the claimant has not met the standards of conduct that make it permissible under the DGCL or any other applicable law for the corporation to indemnify the claimant for the amount claimed. In connection with any claim by an executive officer of the corporation (except in any action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that such executive officer is or was a director of the corporation) for advances, the corporation shall be entitled to raise a defense as to any such action clear and convincing evidence that such person acted in bad faith or in a manner that such person did not believe to be in or not opposed to the best interests of the corporation, or with respect to any criminal action or proceeding that such person acted without reasonable cause to believe that his conduct was lawful. Neither the failure of the corporation (including its Board of Directors, independent legal counsel or its stockholders) to have made a determination prior to the commencement of such action that indemnification of the claimant is proper in the circumstances because he has met the applicable standard of conduct set forth in the DGCL or any other applicable law, nor an actual determination by the corporation (including its Board of Directors, independent legal counsel or its stockholders) that the claimant has not met such applicable standard of conduct, shall be a defense to the action or create a presumption that claimant has not met the applicable standard of conduct. In any suit brought by a director or executive officer to enforce a right to indemnification or to an advancement of expenses hereunder, the burden of proving that the director or executive officer is not entitled to be indemnified, or to such advancement of expenses, under this Section 43 or otherwise shall be on the corporation.

(e) Non-Exclusivity of Rights. The rights conferred on any person by this Bylaw shall not be exclusive of any other right which such person may have or hereafter acquire under any applicable statute, provision of the Certificate of Incorporation, Bylaws, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in his official capacity and as to action in another capacity while holding office. The corporation is specifically authorized to enter into individual contracts with any or all of its directors, officers, employees or agents respecting indemnification and advances, to the fullest extent not prohibited by the ~~Delaware General Corporation Law~~ DGCL

, or by any other applicable law.

(f) Survival of Rights. The rights conferred on any person by this Bylaw shall continue as to a person who has ceased to be a director, officer, employee or other agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

(g) Insurance. To the fullest extent permitted by the DGCL or any other applicable law, the corporation, upon approval by the Board of Directors, may purchase insurance on behalf of any person required or permitted to be indemnified pursuant to this Section 43.

A-17.

Table of Contents

(h) Amendments. Any repeal or modification of this Section 43 shall only be prospective and shall not affect the rights under this Bylaw in effect at the time of the alleged occurrence of any action or omission to act that is the cause of any proceeding against any agent of the corporation.

(i) Saving Clause. If this Bylaw or any portion hereof shall be invalidated on any ground by any court of competent jurisdiction, then the corporation shall nevertheless indemnify each director and executive officer to the full extent not prohibited by any applicable portion of this Section 43 that shall not have been invalidated, or by any other applicable law. If this Section 43 shall be invalid due to the application of the indemnification provisions of another jurisdiction, then the corporation shall indemnify each director and executive officer to the full extent under any other applicable law.

(j) Certain Definitions. For the purposes of this Bylaw, the following definitions shall apply:

(1) The term proceeding shall be broadly construed and shall include, without limitation, the investigation, preparation, prosecution, defense, settlement, arbitration and appeal of, and the giving of testimony in, any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative.

(2) The term expenses shall be broadly construed and shall include, without limitation, court costs, attorneys fees, witness fees, fines, amounts paid in settlement or judgment and any other costs and expenses of any nature or kind incurred in connection with any proceeding.

(3) The term the corporation shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, and employees or agents, so that any person who is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under the provisions of this Section 43 with respect to the resulting or surviving corporation as he would have with respect to such constituent corporation if its separate existence had continued.

(4) References to a director, executive officer, officer, employee, or agent of the corporation shall include, with limitation, situations where such person is serving at the request of the corporation as, respectively, a director, executive officer, officer, employee, trustee or agent of another corporation, partnership, joint venture, trust or other enterprise.

(5) References to other enterprises shall include employee benefit plans; references to fines shall include any excise taxes assessed on a person with respect to an employee benefit plan; and references to serving at the request of the corporation shall include any service as a director, officer, employee or agent of the corporation which imposes duties on, or involves services by, such director, officer, employee, or agent with respect to an employee, benefit plan, its participants, or beneficiaries; and a person who acted in good faith and in a manner he reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner not opposed to the best interests of the corporation as referred to in this Section 43.

ARTICLE XII

NOTICES

Section 44. Notices.

(a) Notice To Stockholders: ~~Whenever, under any provisions of these Bylaws, notice is required to be given to any stockholder, it shall be given in writing, timely and duly deposited in the United States mail, postage prepaid, and addressed to his last known post office address as shown by the stock record of the corporation or its transfer agent.~~ Written notice to stockholders of stockholder meetings shall be given as provided in Section 7 herein. Without limiting the manner by which notice may otherwise be given effectively to stockholders under any agreement or contract with such stockholder, and except as otherwise required by law, written notice to stockholders for purposes

A-18.

Table of Contents

other than stockholder meetings may be sent by US mail or nationally recognized overnight courier, or by facsimile, telegraph or telex or by electronic mail or other electronic means.

(b) Notice to Directors. Any notice required to be given to any director may be given by the method stated in subsection (a), as otherwise provided in these Bylaws, or by overnight delivery service, facsimile, telex or telegram, except that such notice other than one which is delivered personally shall be sent to such address as such director shall have filed in writing with the Secretary, or, in the absence of such filing, to the last known post office address of such director.

(c) Affidavit of Mailing. An affidavit of mailing, executed by a duly authorized and competent employee of the corporation or its transfer agent appointed with respect to the class of stock affected, or other agent, specifying the name and address or the names and addresses of the stockholder or stockholders, or director or directors, to whom any such notice or notices was or were given, and the time and method of giving the same, shall in the absence of fraud, be prima facie evidence of the facts therein contained.

~~**(d) Time Notices Deemed Given.** All notices given by mail or by overnight delivery service, as above provided, shall be deemed to have been given as at the time of mailing, and all notices given by facsimile, telex or telegram shall be deemed to have been given as of the sending time recorded at time of transmission.~~

~~(d) ___~~

~~**(e) Methods of Notice.** It shall not be necessary that the same method of giving notice be employed in respect of all directors recipients of notice , but one permissible method may be employed in respect of any one or more, and any other permissible method or methods may be employed in respect of any other or others.~~

~~**(f) Failure to Receive Notice.** The period or limitation of time within which any stockholder may exercise any option or right, or enjoy any privilege or benefit, or be required to act, or within which any director may exercise any power or right, or enjoy any privilege, pursuant to any notice sent him in the manner above provided, shall not be affected or extended in any manner by the failure of such stockholder or such director to receive such notice.~~

~~(e) ___~~

~~**(g) Notice to Person with Whom Communications in Communication is**~~

~~**Unlawful.** Whenever notice is required to be given, under any provision of law or of the Certificate of Incorporation or Bylaws of the corporation, to any person with whom communication is unlawful, the giving of such notice to such person shall not be required and there shall be no duty to apply to any governmental authority or agency for a license or permit to give such notice to such person. Any action or meeting which shall be taken or held without notice to any such person with whom communication is unlawful shall have the same force and effect as if~~

~~if such notice had been duly given. In the event that the action taken by the corporation is such as to require the filing of a certificate under any provision of the DGCL, the certificate shall state, if such is the fact and if notice is required, that notice was given to all persons entitled to receive notice except such persons with whom communication is unlawful.~~

~~**(h) Notice to Person with Undeliverable Address.** Whenever notice is required to be given, under any provision of law or the Certificate of Incorporation or Bylaws of the corporation, to any stockholder to whom (i) notice of two~~

~~consecutive annual meetings, and all notices of meetings or of the taking of action by written consent without a meeting to such person during the period between such two consecutive annual meetings, or (ii) all, and at least two, payments (if sent by first class mail) of dividends or interest on securities during a twelve month period, have been mailed addressed to such person at his address as shown on the records of the corporation and have been returned undeliverable, the giving of such notice to such person shall not be required. Any action or meeting which shall be taken or held without notice to such person shall have the same force and effect as if such notice had been duly given. If any such person shall deliver to the corporation a written notice setting forth his then current address, the requirement that notice be given to such person shall be reinstated. In the event that the action taken by the corporation is such as to require the filing of a certificate under any provision of the DGCL, the certificate need not state that notice was not given to persons to whom notice was not required to be given pursuant to this paragraph.~~

(f) ___Notice to Stockholders Sharing an Address.

Except as otherwise prohibited under DGCL, any notice given under the provisions of DGCL, the Certificate of Incorporation or the Bylaws shall be effective if given by a single written notice to stockholders who share an address if consented to by the stockholders at that address to whom such notice is given. Such consent shall have been deemed to have been given if such stockholder

A-19.

Table of Contents

fails to object in writing to the corporation within 60 days of having been given notice by the corporation of its intention to send the single notice. Any consent shall be revocable by the stockholder by written notice to the corporation.

ARTICLE XIII

AMENDMENTS

Section 45. Amendments. Subject to ~~paragraph (h) of Section 43 of the Bylaws, the Bylaws may be altered or amended or new Bylaws adopted by~~ the limitations set forth in Section 43(h) of these Bylaws or the provisions of the Certificate of Incorporation, the Board of Directors is expressly empowered to adopt, amend or repeal the Bylaws of the corporation. Any adoption, amendment or repeal of the Bylaws of the corporation by the Board of Directors shall require the approval of a majority of the authorized number of directors. The stockholders shall also have power to adopt, amend or repeal the Bylaws of the corporation; provided, however, that, in addition to any vote of the holders of any class or series of stock of the corporation required by law or by the Certificate of Incorporation, such action by stockholders shall require the affirmative vote of ~~at least sixty six and two thirds percent (66 2/3%)~~ the holders of at least a majority of the voting power of all of the then-outstanding shares of the ~~voting~~ capital stock of the corporation entitled to vote; generally in the ~~Board~~ election of directors ~~shall also have the power to adopt, amend, or repeal Bylaws.~~, voting together as a single class.

ARTICLE XIV

LOANS TO OFFICERS

Section 46. Loans to Officers. Except as otherwise prohibited by applicable law, the corporation may lend money to, or guarantee any obligation of, or otherwise assist any officer or other employee of the corporation or of its subsidiaries, including any officer or employee who is a Director of the corporation or its subsidiaries, whenever, in the judgment of the Board of Directors, such loan, guarantee or assistance may reasonably be expected to benefit the corporation. The loan, guarantee or other assistance may ~~be~~ be with or without interest and may be unsecured, or secured in such manner as the Board of Directors shall approve, including, without limitation, a pledge of shares of stock of the corporation. Nothing in these Bylaws shall be deemed to deny, limit or restrict the powers of guaranty or warranty of the corporation at common law or under any statute.

Table of Contents

Appendix B

**~~INTRABIOTICS PHARMACEUTICALS~~
~~ARDEA BIOSCIENCES~~
~~, INC.~~**

2004 STOCK INCENTIVE PLAN

**(As Amended and Restated Effective ~~February 10,~~
July [],
2006)**

ARTICLE ONE

GENERAL PROVISIONS

I. PURPOSE OF THE PLAN

This 2004 Stock Incentive Plan is intended to promote the interests of ~~IntraBiotics Pharmaceuticals~~
Ardea Biosciences,

Inc., a Delaware corporation, by providing eligible persons in the Corporation's service with the opportunity to acquire a proprietary interest, or otherwise increase their proprietary interest, in the Corporation as an incentive for them to remain in such service.

Capitalized terms shall have the meanings assigned to such terms in the attached Appendix or as otherwise defined in the Plan

II. STRUCTURE OF THE PLAN

A. The Plan shall be divided into three separate equity incentive programs:

the Discretionary Grant Program under which eligible persons may, at the discretion of the Plan Administrator, be granted options to purchase shares of Common Stock or stock appreciation rights tied to the value of such Common Stock,

the Stock Issuance Program under which eligible persons may, at the discretion of the Plan Administrator, be issued shares of Common Stock pursuant to restricted stock awards, restricted stock units or other share right awards which vest upon the completion of a designated service period or the attainment of pre-established performance milestones, or such shares of Common Stock may be issued through direct purchase or as a bonus for services rendered the Corporation (or any Parent or Subsidiary), and

the Automatic Option Grant Program under which eligible non-employee Board members will automatically receive option grants at designated intervals over their period of continued Board service.

B. The provisions of Articles One and Five shall apply to all equity programs under the Plan and shall govern the interests of all persons under the Plan.

III. ADMINISTRATION OF THE PLAN

A. The Board shall serve as the Plan Administrator.

B-1

Table of Contents

B. The Board as Plan Administrator shall have full power and authority (subject to the provisions of the Plan) to establish such rules and regulations as it may deem appropriate for proper administration of the Plan and to make such determinations under, and issue such interpretations of, the provisions of the Plan and any outstanding stock options, stock appreciation rights, stock issuances or other stock-based awards thereunder as it may deem necessary or advisable. Decisions of the Plan Administrator shall be final and binding on all parties who have an interest in the Plan or any stock option, stock appreciation right, stock issuance or other stock-based award thereunder.

C. Service as the Plan Administrator shall constitute service as a Board member, and the individuals serving in that capacity shall accordingly be entitled to full indemnification and reimbursement as Board members for their service as Plan Administrator. No individual serving in his or her capacity as Plan Administrator shall be liable for any act or omission made in good faith with respect to the Plan or any stock option, stock appreciation right, stock issuance or other stock-based award made or granted under the Plan.

IV. ELIGIBILITY

A. The persons eligible to participate in the Discretionary Grant and Stock Issuance Programs are as follows:

(i) Employees,

(ii) non-employee members of the Board or the board of directors of any Parent or Subsidiary, and

(iii) consultants and other independent advisors who provide services to the Corporation (or any Parent or Subsidiary).

B. The Plan Administrator shall have full authority to determine, (i) with respect to the grant of options or stock appreciation rights under the Discretionary Grant Program, which eligible persons are to receive such grants, the time or times when those grants are to be made, the number of shares to be covered by each such grant, the status of a granted option as either an Incentive Option or a Non-Statutory Option, the time or times when each option or stock appreciation right is to become exercisable, the vesting schedule (if any) applicable to the option or stock appreciation right and the maximum term for which the option or stock appreciation right is to remain outstanding and (ii) with respect to stock issuances or other stock-based awards under the Stock Issuance Program, which eligible persons are to receive such issuances or awards, the time or times when the issuances or awards are to be made, the number of shares subject to each such issuance or award, the vesting schedule (if any) applicable to the shares which are the subject of such issuance or award and the consideration for those shares.

C. The Plan Administrator shall have the absolute discretion either to grant options or stock appreciation right in accordance with the Discretionary Grant Program or to effect stock issuances and other stock-based awards in accordance with the Stock Issuance Program.

D. The individuals who shall be eligible to participate in the Automatic Option Grant Program shall be limited to (i) those individuals who first become non-employee Board members on or after the Plan Effective Date, whether through appointment by the Board or election by the Corporation's stockholders, and (ii) those individuals who continue to serve as non-employee Board members after the Plan Effective Date. A non-employee Board member who has previously been in the employ of the Corporation (or any Parent or Subsidiary) shall not be eligible to receive an option grant under the Automatic Option Grant Program at the time he or she first becomes a non-employee Board member, but shall be eligible to receive periodic option grants under the Automatic Option Grant Program while he or she continues to serve as a non-employee Board member.

V. STOCK SUBJECT TO THE PLAN

A. The stock issuable under the Plan shall be shares of authorized but unissued or reacquired Common Stock, including shares repurchased by the Corporation on the open market. The number of shares of Common Stock initially reserved for issuance over the term of the Plan shall not exceed 2,050,000 shares. Such reserve shall consist of (i) the number of shares estimated to be transferred to this Plan from the Predecessor Plan, including the

B-2

Table of Contents

shares subject to outstanding options under the Predecessor Plan to be transferred to this Plan, upon stockholder approval of the Plan at the 2004 Annual Meeting, (ii) plus an additional increase of approximately 1,200,000 shares.

B. The number of shares of Common Stock available for issuance under the Plan shall automatically increase on the first trading day of January each calendar year during the term of the Plan, beginning with calendar year 2005, by an amount equal to five percent (5%) of the sum of the following share numbers, calculated as of the last trading day in December of the immediately preceding calendar year: (i) the total number of shares of Common Stock outstanding on that date and (ii) the number of shares of Common Stock into which the outstanding shares of the Corporation's preferred stock are convertible on that date. In no event shall any such annual increase exceed 2,000,000 shares.

C. No one person participating in the Plan may receive stock options, stand-alone stock appreciation rights, direct stock issuances (whether vested or unvested) or other stock-based awards (whether in the form of restricted stock units or other share-right awards) for more than 1,000,000 shares of Common Stock in the aggregate per calendar year.

D. Shares of Common Stock subject to outstanding options (including options transferred to this Plan from the Predecessor Plan) or other awards made under the Plan shall be available for subsequent issuance under the Plan to the extent (i) those options or awards expire or terminate for any reason prior to the issuance of the shares of Common Stock subject to those options or awards or (ii) the awards are cancelled in accordance with the exchange/ repricing provisions of Article Two. Unvested shares issued under the Plan and subsequently forfeited or repurchased by the Corporation, at a price per share not greater than the original issue price paid per share, pursuant to the Corporation's repurchase rights under the Plan shall be added back to the number of shares of Common Stock reserved for issuance under the Plan and shall accordingly be available for subsequent reissuance. Should the exercise price of an option under the Plan be paid with shares of Common Stock, then the authorized reserve of Common Stock under the Plan shall be reduced only by the net number of shares issued under the exercised stock option. Should shares of Common Stock otherwise issuable under the Plan be withheld by the Corporation in satisfaction of the withholding taxes incurred in connection with the exercise of an option or stock appreciation right or the issuance of fully-vested shares under the Stock Issuance Program, then the number of shares of Common Stock available for issuance under the Plan shall be reduced only by the net number of shares issued under the exercised stock option or stock appreciation right or the net number of fully-vested shares issued under the Stock Issuance Program. Such withholding shall in effect be treated under the Plan as a cash bonus, payable directly to the applicable taxing authorities on behalf of the individual concerned, in an amount equal to the Fair Market Value of the withheld shares, and not as an issuance and immediate repurchase of those shares.

E. If any change is made to the Common Stock by reason of any stock split, stock dividend, recapitalization, combination of shares, exchange of shares or other change affecting the outstanding Common Stock as a class without the Corporation's receipt of consideration, appropriate adjustments shall be made by the Plan Administrator to (i) the maximum number and/or class of securities issuable under the Plan, (ii) the maximum number and/or class of securities for which any one person may be granted stock options, stand-alone stock appreciation rights, direct stock issuances and other stock-based awards under the Plan per calendar year, (iii) the number and/or class of securities for which grants are subsequently to be made under the Automatic Option Grant Program to new and continuing non-employee Board members for service on the Board or any Board committee, (iv) the number and/or class of securities and the exercise or base price per share in effect under each outstanding option or stock appreciation right under the Plan, (v) the number and/or class of securities subject to each outstanding restricted stock unit or other stock-based award under the Plan, (vi) the number and/or class of securities and exercise price per share in effect under each outstanding option transferred to this Plan from the Predecessor Plan and (vii) the maximum number and/or class of securities by which the share reserve is to increase automatically each calendar year pursuant to the provisions of Section V.B of this Article One. Such adjustments to the outstanding options, stock appreciation rights or other stock-based awards are to be effected in a manner which shall preclude the enlargement or dilution of rights and benefits under those options, stock appreciation rights or other stock-based awards. The adjustments determined

by the Plan Administrator shall be final, binding and conclusive.

F. Outstanding awards granted pursuant to the Plan shall in no way affect the right of the Corporation to adjust, reclassify, reorganize or otherwise change its capital or business structure or to merge, consolidate, dissolve, liquidate or sell or transfer all or any part of its business or assets.

B-3

Table of Contents

ARTICLE TWO

DISCRETIONARY GRANT PROGRAM

I. OPTION TERMS

Each option shall be evidenced by one or more documents in the form approved by the Plan Administrator; provided, however, that each such document shall comply with the terms specified below. Each document evidencing an Incentive Option shall, in addition, be subject to the provisions of the Plan applicable to such options.

A. Exercise Price.

1. The exercise price per share shall be fixed by the Plan Administrator but shall not be less than one hundred percent (100%) of the Fair Market Value per share of Common Stock on the option grant date.

2. The exercise price shall become immediately due upon exercise of the option and shall, subject to the provisions of the documents evidencing the option, be payable in one or more of the forms specified below:

(i) cash or check made payable to the Corporation,

(ii) shares of Common Stock held for the requisite period necessary to avoid a charge to the Corporation's earnings for financial reporting purposes and valued at Fair Market Value on the Exercise Date, or

(iii) to the extent the option is exercised for vested shares, through a special sale and remittance procedure pursuant to which the Optionee shall concurrently provide irrevocable instructions to (a) a brokerage firm (reasonably satisfactory to the Corporation for purposes of administering such procedure in compliance with the Corporation's pre-clearance/pre-notification policies) to effect the immediate sale of the purchased shares and remit to the Corporation, out of the sale proceeds available on the settlement date, sufficient funds to cover the aggregate exercise price payable for the purchased shares plus all applicable income and employment taxes required to be withheld by the Corporation by reason of such exercise and (b) the Corporation to deliver the certificates for the purchased shares directly to such brokerage firm in order to complete the sale.

Except to the extent such sale and remittance procedure is utilized, payment of the exercise price for the purchased shares must be made on the Exercise Date.

B. Exercise and Term of Options. Each option shall be exercisable at such time or times, during such period and for such number of shares as shall be determined by the Plan Administrator and set forth in the documents evidencing the option. However, no option shall have a term in excess of ten (10) years measured from the option grant date.

C. Effect of Termination of Service.

1. The following provisions shall govern the exercise of any options granted pursuant to the Discretionary Grant Program that are outstanding at the time of the Optionee's cessation of Service:

(i) Any option outstanding at the time of the Optionee's cessation of Service shall remain exercisable for such period of time thereafter as shall be determined by the Plan Administrator and set forth in the documents evidencing the option, but no such option shall be exercisable after the expiration of the option term. However, in the event an Optionee should cease Employee status by reason of Retirement, Permanent Disability or death, any outstanding option granted to such Optionee under the Discretionary Grant Program shall remain exercisable for the remainder of

the option term.

B-4

Table of Contents

(ii) Any option outstanding at the time of the Optionee's death and exercisable in whole or in part at that time may be subsequently exercised by the personal representative of the Optionee's estate or by the person or persons to whom the option is transferred pursuant to the Optionee's will or the laws of inheritance or by the Optionee's designated beneficiary or beneficiaries of that option.

(iii) Should the Optionee's Service be terminated for Misconduct or should the Optionee otherwise engage in Misconduct while holding one or more outstanding options granted under this Article Two, then all of those options shall terminate immediately and cease to be outstanding.

(iv) During the applicable post-Service exercise period, the option may not be exercised in the aggregate for more than the number of vested shares for which that option is at the time exercisable. No additional shares shall vest under the option following the Optionee's cessation of Service, except to the extent (if any) specifically authorized by the Plan Administrator in its sole discretion pursuant to an express written agreement with the Optionee. Upon the expiration of the applicable exercise period or (if earlier) upon the expiration of the option term, the option shall terminate and cease to be outstanding for any shares for which the option has not been exercised.

2. The Plan Administrator shall have complete discretion, exercisable either at the time an option is granted or at any time while the option remains outstanding, to:

(i) extend the period of time for which the option is to remain exercisable following the Optionee's cessation of Service from the limited exercise period otherwise in effect for that option to such greater period of time as the Plan Administrator shall deem appropriate, but in no event beyond the expiration of the option term, and/or

(ii) permit the option to be exercised, during the applicable post-Service exercise period, not only with respect to the number of vested shares of Common Stock for which such option is exercisable at the time of the Optionee's cessation of Service but also with respect to one or more additional installments in which the Optionee would have vested had the Optionee continued in Service.

D. **Stockholder Rights.** The holder of an option shall have no stockholder rights with respect to the shares subject to the option until such person shall have exercised the option, paid the exercise price and become a holder of record of the purchased shares.

E. **Repurchase Rights.** The Plan Administrator shall have the discretion to grant options which are exercisable for unvested shares of Common Stock. Should the Optionee cease Service while such shares are unvested, the Corporation shall have the right to repurchase any or all of those unvested shares at a price per share equal to the *lower* of (i) the exercise price paid per share or (ii) the Fair Market Value per share of Common Stock at the time of repurchase. The terms upon which such repurchase right shall be exercisable (including the period and procedure for exercise and the appropriate vesting schedule for the purchased shares) shall be established by the Plan Administrator and set forth in the document evidencing such repurchase right.

F. **Limited Transferability of Options.** During the lifetime of the Optionee, options shall be exercisable only by the Optionee and shall not be assignable or transferable other than by will or by the laws of inheritance following the Optionee's death. However, the Plan Administrator may permit an assignment, in whole or in part, during the Optionee's lifetime, of a Non-Statutory Option, if such assignment is in connection with the Optionee's estate plan and is to one or more Family Members of the Optionee or to a trust established exclusively for the Optionee and/or one or more such Family Members or is pursuant to a domestic relations order covering the option as marital property. The assigned portion may only be exercised by the person or persons who acquire a proprietary interest in the option pursuant to the assignment. The terms applicable to the assigned portion shall be the same as those in effect for the option immediately prior to such assignment and shall be set forth in such documents issued to the assignee as the

Plan Administrator may deem appropriate. Notwithstanding the foregoing, the Optionee may also designate one or more persons as the beneficiary or beneficiaries of his or her outstanding options under this Article Two, and the options shall, in accordance with such designation, automatically be transferred to such beneficiary or beneficiaries upon the Optionee's death while holding those options. Such beneficiary or beneficiaries shall take the transferred options subject to all the terms and conditions of the applicable agreement evidencing each such transferred option,

B-5

Table of Contents

including (without limitation) the limited time period during which the option may be exercised following the Optionee's death.

II. INCENTIVE OPTIONS

The terms specified below shall be applicable to all Incentive Options. Except as modified by the provisions of this Section II, all the provisions of Articles One, Two and Five shall be applicable to Incentive Options. Options which are specifically designated as Non-Statutory Options when issued under the Plan shall not be subject to the terms of this Section II.

A. **Eligibility.** Incentive Options may only be granted to Employees.

B. **Dollar Limitation.** The aggregate Fair Market Value of the shares of Common Stock (determined as of the respective date or dates of grant) for which one or more options granted to any Employee under the Plan (or any other option plan of the Corporation or any Parent or Subsidiary) may for the first time become exercisable as Incentive Options during any one calendar year shall not exceed the sum of One Hundred Thousand Dollars (\$100,000).

To the extent the Employee holds two (2) or more such options which become exercisable for the first time in the same calendar year, the foregoing limitation on the exercisability of such options as Incentive Options shall be applied on the basis of the order in which such options are granted.

C. **10% Stockholder.** If any Employee to whom an Incentive Option is granted is a 10% Stockholder, then the exercise price per share shall not be less than one hundred ten percent (110%) of the Fair Market Value per share of Common Stock on the option grant date, and the option term shall not exceed five (5) years measured from the option grant date.

III. STOCK APPRECIATION RIGHTS

A. **Authority.** The Plan Administrator shall have full power and authority, exercisable in its sole discretion, to grant stock appreciation rights in accordance with this Section III to selected Optionees or other individuals eligible to receive option grants under the Discretionary Grant Program.

B. **Types.** Three types of stock appreciation rights shall be authorized for issuance under this Section III: (i) tandem stock appreciation rights (Tandem Rights), (ii) stand-alone stock appreciation rights (Stand-alone Rights) and (iii) limited stock appreciation rights (Limited Rights).

C. **Tandem Rights.** The following terms and conditions shall govern the grant and exercise of Tandem Rights.

1. One or more Optionees may be granted a Tandem Right, exercisable upon such terms and conditions as the Plan Administrator may establish, to elect between the exercise of the underlying option for shares of Common Stock or the surrender of that option in exchange for a distribution from the Corporation in an amount equal to the excess of (i) the Fair Market Value (on the option surrender date) of the number of shares in which the Optionee is at the time vested under the surrendered option (or surrendered portion thereof) over (ii) the aggregate exercise price payable for such vested shares.

2. No such option surrender shall be effective unless it is approved by the Plan Administrator, either at the time of the actual option surrender or at any earlier time. If the surrender is so approved, then the distribution to which the Optionee shall accordingly become entitled under this Section III may be made in shares of Common Stock valued at Fair Market Value on the option surrender date, in cash, or partly in shares and partly in cash, as the Plan

Administrator shall in its sole discretion deem appropriate.

B-6

Table of Contents

3. If the surrender of an option is not approved by the Plan Administrator, then the Optionee shall retain whatever rights the Optionee had under the surrendered option (or surrendered portion thereof) on the option surrender date and may exercise such rights at any time prior to the *later* of (i) five (5) business days after the receipt of the rejection notice or (ii) the last day on which the option is otherwise exercisable in accordance with the terms of the instrument evidencing such option, but in no event may such rights be exercised more than ten (10) years after the date of the option grant.

D. **Stand-Alone Rights.** The following terms and conditions shall govern the grant and exercise of Stand-alone Rights:

1. One or more individuals eligible to participate in the Discretionary Grant Program may be granted a Stand-alone Right not tied to any underlying option under this Discretionary Grant Program. The Stand-alone Right shall relate to a specified number of shares of Common Stock and shall be exercisable upon such terms and conditions as the Plan Administrator may establish. In no event, however, may the Stand-alone Right have a maximum term in excess of ten (10) years measured from the grant date. Upon exercise of the Stand-alone Right, the holder shall be entitled to receive a distribution from the Corporation in an amount equal to the excess of (i) the aggregate Fair Market Value (on the exercise date) of the shares of Common Stock underlying the exercised right over (ii) the aggregate base price in effect for those shares.
2. The number of shares of Common Stock underlying each Stand-alone Right and the base price in effect for those shares shall be determined by the Plan Administrator in its sole discretion at the time the Stand-alone Right is granted. In no event, however, may the base price per share be less than the Fair Market Value per underlying share of Common Stock on the grant date. In the event outstanding Stand-alone Rights are to be assumed in connection with a Change in Control transaction or otherwise continued in effect, the shares of Common Stock underlying each such Stand-alone Right shall be adjusted immediately after such Change in Control so as to apply to the number and class of securities into which those shares of Common Stock would have been converted in consummation of such Change in Control had those shares actually been outstanding at that time. Appropriate adjustments to reflect such Change in Control shall also be made to the base price per share in effect under each outstanding Stand-alone Right, provided the aggregate base price shall remain the same. To the extent the actual holders of the Corporation's outstanding Common Stock receive cash consideration for their Common Stock in consummation of the Change in Control, the successor corporation may, in connection with the assumption or continuation of the outstanding Stand-alone Rights under the Discretionary Grant Program, substitute, for the securities underlying those assumed rights, one or more shares of its own common stock with a fair market value equivalent to the cash consideration paid per share of Common Stock in the Change in Control transaction.
3. Stand-alone Rights shall be subject to the same transferability restrictions applicable to Non-Statutory Options and may not be transferred during the holder's lifetime, except if such assignment is in connection with the holder's estate plan and is to one or more Family Members of the holder or to a trust established for the holder and/or one or more such Family Members or pursuant to a domestic relations order covering the Stand-alone Right as marital property. In addition, one or more beneficiaries may be designated for an outstanding Stand-alone Right in accordance with substantially the same terms and provisions as set forth in Section I.F of this Article Two.
4. The distribution with respect to an exercised Stand-alone Right may be made in shares of Common Stock valued at Fair Market Value on the exercise date, in cash, or partly in shares and partly in cash, as the Plan Administrator shall in its sole discretion deem appropriate.
5. The holder of a Stand-alone Right shall have no stockholder rights with respect to the shares subject to the Stand-alone Right unless and until such person shall have exercised the Stand-alone Right and become a holder of record of the shares of Common Stock issued upon the exercise of such Stand-alone Right.

E. **Limited Rights.** The following terms and conditions shall govern the grant and exercise of Limited Rights:

1. One or more Section 16 Insiders may, in the Plan Administrator's sole discretion, be granted Limited Rights with respect to their outstanding options under this Article Two.

B-7

Table of Contents

2. Upon the occurrence of a Hostile Tender-Offer, the Section 16 Insider shall have the unconditional right (exercisable for a thirty (30)-day period following such Hostile Tender-Offer) to surrender each option with such a Limited Right to the Corporation. The Section 16 Insider shall in return be entitled to a cash distribution from the Corporation in an amount equal to the excess of (i) the Tender-Offer Price of the number of shares in which the Optionee is at the time vested under the surrendered option (or surrendered portion thereof) over (ii) the aggregate exercise price payable for those vested shares. Such cash distribution shall be made within five (5) days following the option surrender date.

3. The Plan Administrator shall pre-approve, at the time such Limited Right is granted, the subsequent exercise of that right in accordance with the terms of the grant and the provisions of this Section III. No additional approval of the Plan Administrator or the Board shall be required at the time of the actual option surrender and cash distribution. Any unsurrendered portion of the option shall continue to remain outstanding and become exercisable in accordance with the terms of the instrument evidencing such grant.

F. **Post-Service Exercise.** The provisions governing the exercise of Tandem, Stand-alone and Limited Stock Appreciation Rights following the cessation of the recipient's Service shall be substantially the same as those set forth in Section I.C of this Article Two for the options granted under the Discretionary Grant Program.

G. **Net Counting.** Upon the exercise of any Tandem, Stand-alone or Limited Right under this Section III, the share reserve under Section V of Article One shall only be reduced by the net number of shares actually issued by the Corporation upon such exercise, and not by the gross number of shares as to which such Tandem, Stand-alone or Limited Right is exercised. Accordingly, upon the exercise of any such stock appreciation right, the number of shares available for issuance under the Plan shall increase by the amount by which the shares subject to that exercised stock appreciation right exceeds the number of shares actually issued in connection with the exercise.

IV. CHANGE IN CONTROL/HOSTILE TAKE-OVER

A. In the event of a Change in Control, each outstanding option or stock appreciation right under the Discretionary Grant Program shall automatically accelerate so that each such option or stock appreciation right shall, immediately prior to the effective date of that Change in Control, become exercisable as to all the shares of Common Stock at the time subject to such option or stock appreciation right and may be exercised as to any or all of those shares as fully vested shares of Common Stock. However, except as otherwise provided in Section IV.B of this Article Two, an outstanding option or stock appreciation right shall not become exercisable on such an accelerated basis if and to the extent: (i) such option or stock appreciation right is to be assumed by the successor corporation (or parent thereof) or is otherwise to continue in full force and effect pursuant to the terms of the Change in Control transaction or (ii) such option or stock appreciation right is to be replaced with a cash incentive program of the successor corporation which preserves the spread existing at the time of the Change in Control on any shares as to which the option or stock appreciation right is not otherwise at that time exercisable and provides for subsequent payout of that spread in accordance with the same exercise/vesting schedule applicable to those shares or (iii) the acceleration of such option or stock appreciation right is subject to other limitations imposed by the Plan Administrator at the time of the grant.

B. Notwithstanding Section IV.A of this Article Two, the following special vesting acceleration provisions shall be in effect for all options and stock appreciation rights granted under the Discretionary Grant Program:

(i) Each outstanding option or stock appreciation right under this Discretionary Grant Program which is at the time held by a then current Employee shall, immediately prior to the effective date of a Change in Control, automatically vest and become exercisable as to fifty percent (50%) of the total number of unvested shares of Common Stock at the time subject to such outstanding option or stock appreciation right, and each such option or stock appreciation right may accordingly be exercised as to any or all of those accelerated shares as fully vested shares of Common Stock.

(ii) Should an Executive's Service terminate by reason of an Involuntary Termination within thirteen (13) months following a Change in Control, then each outstanding option or stock

B-8

Table of Contents

appreciation right under this Discretionary Grant Program held by that Executive shall immediately vest and become exercisable as to all the securities at the time subject to such outstanding option or stock appreciation right, and each such option or stock appreciation right may be exercised as to any or all of those securities as fully-vested shares.

(iii) Each outstanding option or stock appreciation right under this Discretionary Grant Program which is at the time held by a then current non-employee Board member shall, immediately prior to the effective date of a Change in Control, automatically vest and become exercisable as to all the unvested shares of Common Stock at the time subject to such outstanding option or stock appreciation right, and each such option or stock appreciation right may accordingly be exercised for any or all of those shares as fully vested shares of Common Stock.

C. All outstanding repurchase rights under the Discretionary Grant Program shall automatically terminate, and the shares of Common Stock subject to those terminated rights shall immediately vest in full, in the event of a Change in Control, except to the extent: (i) those repurchase rights are to be assigned to the successor corporation (or parent thereof) or are otherwise to continue in full force and effect pursuant to the terms of the Change in Control transaction or (ii) such accelerated vesting is precluded by other limitations imposed by the Plan Administrator at the time the repurchase right is issued.

D. Immediately following the consummation of the Change in Control, all outstanding options or stock appreciation rights under the Discretionary Grant Program shall terminate and cease to be outstanding, except to the extent assumed by the successor corporation (or parent thereof) or otherwise continued in full force and effect pursuant to the terms of the Change in Control transaction.

E. Each option which is assumed in connection with a Change in Control or otherwise continued in effect shall be appropriately adjusted, immediately after such Change in Control, to apply to the number and class of securities which would have been issuable to the Optionee in consummation of such Change in Control had the option been exercised immediately prior to such Change in Control. Appropriate adjustments to reflect such Change in Control shall also be made to (i) the exercise price payable per share under each outstanding option, provided the aggregate exercise price payable for such securities shall remain the same, (ii) the maximum number and/or class of securities available for issuance over the remaining term of the Plan and (iii) the maximum number and/or class of securities for which any one person may be granted stock options, stand-alone stock appreciation rights, direct stock issuances and other stock-based awards under the Plan per calendar year and (iv) the maximum number and/or class of securities by which the share reserve is to increase automatically each calendar year. To the extent the actual holders of the Corporation's outstanding Common Stock receive cash consideration for their Common Stock in consummation of the Change in Control, the successor corporation may, in connection with the assumption or continuation of the outstanding options under the Discretionary Grant Program, substitute one or more shares of its own common stock with a fair market value equivalent to the cash consideration paid per share of Common Stock in such Change in Control transaction.

F. The Plan Administrator shall have the discretionary authority to structure one or more outstanding options or stock appreciation rights under the Discretionary Grant Program so that those options or stock appreciation rights shall, immediately prior to the effective date of a Change in Control, become exercisable as to all the shares of Common Stock at the time subject to those options or stock appreciation rights and may be exercised as to any or all of those shares as fully vested shares of Common Stock, whether or not those options or stock appreciation rights are to be assumed in the Change in Control transaction or otherwise continued in effect. In addition, the Plan Administrator shall have the discretionary authority to structure one or more of the Corporation's repurchase rights under the Discretionary Grant Program so that those rights shall immediately terminate upon the consummation of the Change in Control transaction, and the shares subject to those terminated rights shall thereupon vest in full.

G. The Plan Administrator shall have full power and authority to structure one or more outstanding options or stock appreciation rights under the Discretionary Grant Program so that those options or stock appreciation rights shall

become exercisable as to all the shares of Common Stock at the time subject to those options or stock appreciation rights in the event the Optionee's Service is subsequently terminated by reason of an Involuntary Termination within a designated period following the effective date of any Change in Control transaction in which those options or stock appreciation rights do not otherwise fully accelerate. In addition, the Plan Administrator may

B-9

Table of Contents

structure one or more of the Corporation's repurchase rights so that those rights shall immediately terminate with respect to any shares held by the Optionee at the time of such Involuntary Termination, and the shares subject to those terminated repurchase rights shall accordingly vest in full at that time.

H. The Plan Administrator shall have the discretionary authority to structure one or more outstanding options or stock appreciation rights under the Discretionary Grant Program so that those options or stock appreciation rights shall, immediately prior to the effective date of a Hostile Take-Over, become exercisable as to all the shares of Common Stock at the time subject to those options or stock appreciation rights and may be exercised as to any or all of those shares as fully vested shares of Common Stock. In addition, the Plan Administrator shall have the discretionary authority to structure one or more of the Corporation's repurchase rights under the Discretionary Grant Program so that those rights shall terminate automatically upon the consummation of such Hostile Take-Over, and the shares subject to those terminated rights shall thereupon vest in full. Alternatively, the Plan Administrator may condition the automatic acceleration of one or more outstanding options or stock appreciation rights under the Discretionary Grant Program and the termination of one or more of the Corporation's outstanding repurchase rights under such program upon the subsequent termination of the Optionee's Service by reason of an Involuntary Termination within a designated period following the effective date of such Hostile Take-Over.

I. The portion of any Incentive Option accelerated in connection with a Change in Control or Hostile Take-Over shall remain exercisable as an Incentive Option only to the extent the applicable One Hundred Thousand Dollar (\$100,000) limitation is not exceeded. To the extent such dollar limitation is exceeded, the accelerated portion of such option shall be exercisable as a Non-statutory Option under the Federal tax laws.

V. EXCHANGE/REPRICING PROGRAMS

A. The Plan Administrator shall have the authority to effect, at any time and from time to time, with the consent of the affected holders but without any requirement for stockholder approval, the cancellation of any or all outstanding options or stock appreciation right under the Discretionary Grant Program (including outstanding options transferred from the Predecessor Plan) and to grant in exchange one or more of the following: (i) new options or stock appreciation rights covering the same or a different number of shares of Common Stock but with an exercise or base price per share not less than the Fair Market Value per share of Common Stock on the new grant date or (ii) cash or shares of Common Stock, whether vested or unvested, equal in value to the value of the cancelled options or stock appreciation rights.

B. The Plan Administrator shall also have the authority, exercisable at any time and from time to time, with the consent of the affected holders but without any requirement for stockholder approval, to reduce the exercise or base price of one or more outstanding options or stock appreciation rights to the then current Fair Market Value per share of Common Stock or issue new options or stock appreciation rights with a lower exercise or base price in immediate cancellation of outstanding options or stock appreciation rights with a higher exercise or base price.

Table of Contents

ARTICLE THREE

STOCK ISSUANCE PROGRAM

I. STOCK ISSUANCE TERMS

Shares of Common Stock may be issued under the Stock Issuance Program, either as vested or unvested shares, through direct and immediate issuances without any intervening option grants. Each such stock issuance shall be evidenced by a Stock Issuance Agreement which complies with the terms specified below. Shares of Common Stock may also be issued under the Stock Issuance Program pursuant to share right awards or restricted stock units which entitle the recipients to receive the shares underlying those awards or units upon the attainment of designated performance goals or the satisfaction of specified Service requirements or upon the expiration of a designated time period following the vesting of those awards or units.

A. Issue Price.

1. The issue price per share shall be fixed by the Plan Administrator, but shall not be less than one hundred percent (100%) of the Fair Market Value per share of Common Stock on the issuance date.
2. Shares of Common Stock may be issued under the Stock Issuance Program for any of the following items of consideration which the Plan Administrator may deem appropriate in each individual instance:
 - (i) cash or check made payable to the Corporation,
 - (ii) past services rendered to the Corporation (or any Parent or Subsidiary); or
 - (iii) any other valid consideration under the Delaware General Corporation Law.

B. Vesting Provisions.

1. Shares of Common Stock issued under the Stock Issuance Program may, in the discretion of the Plan Administrator, be fully and immediately vested upon issuance or may vest in one or more installments over the Participant's period of Service or upon the attainment of specified performance objectives. The elements of the vesting schedule applicable to any unvested shares of Common Stock issued under the Stock Issuance Program shall be determined by the Plan Administrator and incorporated into the Stock Issuance Agreement. Shares of Common Stock may also be issued under the Stock Issuance Program pursuant to share right awards or restricted stock units which entitle the recipients to receive the shares underlying those awards or units upon the attainment of designated performance goals or the satisfaction of specified Service requirements or upon the expiration of a designated time period following the vesting of those awards or units, including (without limitation) a deferred distribution date following the termination of the Participant's Service.
2. The Plan Administrator shall also have the discretionary authority, consistent with Code Section 162(m), to structure one or more stock issuances or restricted stock unit or share right awards so that the shares of Common Stock subject to those issuances or awards shall vest (or vest and become issuable) upon the achievement of certain pre-established corporate performance goals based on one or more of the following criteria: (1) return on total stockholder equity; (2) earnings per share of Common Stock; (3) net income (before or after taxes); (4) earnings before interest, taxes, depreciation and amortization; (5) sales or revenue targets; (6) return on assets, capital or investment; (7) cash flow; (8) market share; (9) cost reduction goals; (10) budget comparisons; ~~(11)~~

) measures of customer satisfaction; (12) any combination of, or a specified increase in, any of the foregoing; (13) implementation or completion of projects or processes strategic or critical to the Corporation's business operations; (14) achievement of advances in research; new product development; development of products to pre-clinical phase; commencement, advancement or completion of clinical trials for a product; FDA or other regulatory

B-11

Table of Contents

body approval for commercialization of products; and (15) the formation of joint ventures, research or development collaborations, or the completion of other corporate transactions intended to enhance the Corporation's revenue or profitability or expand its customer base. In addition, such performance goals may be based upon the attainment of specified levels of the Corporation's performance under one or more of the measures described above relative to the performance of other entities and may also be based on the performance of any of the Corporation's business units or divisions or any Parent or Subsidiary. Performance goals may include a minimum threshold level of performance below which no award will be earned, levels of performance at which specified portions of an award will be earned and a maximum level of performance at which an award will be fully earned.

3. Any new, substituted or additional securities or other property (including money paid other than as a regular cash dividend) which the Participant may have the right to receive with respect to the Participant's unvested shares of Common Stock by reason of any stock dividend, stock split, recapitalization, combination of shares, exchange of shares or other change affecting the outstanding Common Stock as a class without the Corporation's receipt of consideration shall be issued subject to (i) the same vesting requirements applicable to the Participant's unvested shares of Common Stock and (ii) such escrow arrangements as the Plan Administrator shall deem appropriate.

4. The Participant shall have full stockholder rights with respect to any shares of Common Stock issued to the Participant under the Stock Issuance Program, whether or not the Participant's interest in those shares is vested. Accordingly, the Participant shall have the right to vote such shares and to receive any regular cash dividends paid on such shares. The Participant shall not have any stockholder rights with respect to the shares of Common Stock subject to a restricted stock unit or share right award until that award vests and the shares of Common Stock are actually issued thereunder. However, dividend-equivalent units may be paid or credited, either in cash or in actual or phantom shares of Common Stock, on outstanding restricted stock unit or share right awards, subject to such terms and conditions as the Plan Administrator may deem appropriate.

5. Should the Participant cease to remain in Service while holding one or more unvested shares of Common Stock issued under the Stock Issuance Program or should the performance objectives not be attained with respect to one or more such unvested shares of Common Stock, then those shares shall be immediately surrendered to the Corporation for cancellation, and the Participant shall have no further stockholder rights with respect to those shares. To the extent the surrendered shares were previously issued to the Participant for consideration paid in cash or cash equivalent, the Corporation shall repay to the Participant the *lower* of (i) the cash consideration paid for the surrendered shares or (ii) the Fair Market Value of those shares at the time of cancellation.

6. The Plan Administrator may in its discretion waive the surrender and cancellation of one or more unvested shares of Common Stock which would otherwise occur upon the cessation of the Participant's Service or the non-attainment of the performance objectives applicable to those shares. Any such waiver shall result in the immediate vesting of the Participant's interest in the shares of Common Stock as to which the waiver applies. Such waiver may be effected at any time, whether before or after the Participant's cessation of Service or the attainment or non-attainment of the applicable performance objectives. However, no vesting requirements tied to the attainment of performance objectives may be waived with respect to shares which were intended at the time of issuance to qualify as performance-based compensation under Code Section 162(m).

7. Outstanding share right awards or restricted stock units under the Stock Issuance Program shall automatically terminate, and no shares of Common Stock shall actually be issued in satisfaction of those awards or units, if the performance goals or Service requirements established for such awards or units are not attained or satisfied. The Plan Administrator, however, shall have the discretionary authority to issue vested shares of Common Stock under one or more outstanding share right awards or restricted stock units as to which the designated performance goals or Service requirements have not been attained or satisfied. However, no vesting requirements tied to the attainment of performance goals may be waived with respect to awards or units which were intended, at the time those awards or

units were granted, to qualify as performance-based compensation under Code Section 162(m).

II. CHANGE IN CONTROL/HOSTILE TAKE-OVER

A. All of the Corporation's outstanding repurchase rights under the Stock Issuance Program shall terminate automatically, and all the shares of Common Stock subject to those terminated rights shall immediately

B-12

Table of Contents

vest in full, in the event of any Change in Control, except to the extent (i) those repurchase rights are to be assigned to the successor corporation (or parent thereof) or are otherwise to continue in full force and effect pursuant to the terms of the Change in Control transaction or (ii) such accelerated vesting is precluded by other limitations imposed in the Stock Issuance Agreement.

B. Each outstanding restricted stock unit or share right award assumed in connection with a Change in Control or otherwise continued in effect shall be adjusted immediately after the consummation of that Change in Control so as to apply to the number and class of securities into which the shares of Common Stock subject to the award immediately prior to the Change in Control would have been converted in consummation of such Change in Control had those shares actually been outstanding at that time.

C. The Plan Administrator shall have the discretionary authority to structure one or more unvested stock issuances or one or more restricted stock unit or other share right awards under the Stock Issuance Program so that the shares of Common Stock subject to those issuances or awards shall automatically vest (or vest and become issuable) in whole or in part immediately upon the occurrence of a Change in Control or upon the subsequent termination of the Participant's Service by reason of an Involuntary Termination within a designated period following the effective date of that Change in Control transaction.

D. The Plan Administrator shall also have the discretionary authority to structure one or more unvested stock issuances or one or more restricted stock unit or other share right awards under the Stock Issuance Program so that the shares of Common Stock subject to those issuances or awards shall automatically vest (or vest and become issuable) in whole or in part immediately upon the occurrence of a Hostile Take-Over or upon the subsequent termination of the Participant's Service by reason of an Involuntary Termination within a designated period following the effective date of that Hostile Take-Over.

E. The Plan Administrator's authority under Paragraphs C and D of this Section II shall also extend to any stock issuances, restricted stock units or other share right awards intended to qualify as performance-based compensation under Code Section 162(m), even though the automatic vesting of those issuances, units or awards pursuant to Paragraph C or D of this Section II may result in their loss of performance-based status under Code Section 162(m).

Table of Contents

ARTICLE FOUR

AUTOMATIC OPTION GRANT PROGRAM

I. OPTION TERMS

A. **Automatic Grants.** Option grants shall be made pursuant to the Automatic Option Grant Program in effect under this Plan as follows:

Initial Grant: Each individual who is first elected or appointed as a non-employee Board member at any time on or after the Plan Effective Date shall automatically be granted, on the date of such initial election or appointment, a Non-Statutory Option to purchase twenty-five thousand (25,000) shares of Common Stock, provided that individual has not previously been in the employ of the Corporation or any Parent or Subsidiary.

Annual Grants:

1. On February 13, 2006, each individual serving as a non-employee Board member on such date shall receive an automatic option grant for twelve thousand five hundred (12,500) shares of Common Stock.
2. On the first trading day in January each year, beginning with the 2007 calendar year, each individual serving as a non-employee Board member on such grant date shall receive an automatic option grant for twelve thousand five hundred (12,500) shares of Common Stock.
3. There shall be no limit on the number of such annual twelve thousand five hundred (12,500)-share option grants any one continuing non-employee Board member may receive over his ~~over~~ or her period of Board ~~or Board committee~~ service, and non-employee Board members who have previously been in the employ of the Corporation (or any Parent or Subsidiary) or who have otherwise received one or more stock option grants from the Corporation prior to the Plan Effective Date shall be eligible to receive one or more such annual option grants over their period of continued Board service.

Annual Grants to Board Committee Members:

1. ___ On the first trading day in January each year, beginning with the 2008 calendar year, each individual serving as a non-employee member or chair of a committee of the Board on such grant date shall receive an automatic option grant (each an Annual Committee Grant) as set forth in the following table:

Board Committee	Position on Committee	Annual Grant (Common Stock)
Audit Committee	Chair	10,000 shares
<u>Compensation Committee</u>	<u>Member</u>	<u>5,000 shares</u>
	<u>Chair</u>	<u>5,000 shares</u>
	<u>Member</u>	<u>2,500 shares</u>
<u>Nominating and Corporate</u>	<u>Chair</u>	<u>5,000 shares</u>

Governance Committee

Member

2,500 shares

2. ___ There shall be no limit on the number of such Annual Committee Grants any one continuing non-employee Board committee chair or member may receive over his or her period of Board committee

B-14

Table of Contents

chair or member may receive over his or her period of Board committee service, and non-employee Board committee chairs and members who have previously been in the employ of the Corporation (or any Parent or Subsidiary) shall be eligible to receive one or more such Annual Committee Grants over their period of continued Board committee service.

3. ___In the event that a non-employee Board member is appointed to serve as a chair or member of a Board committee on a date other than January 1 of a given year, such individual shall receive a pro-rated Annual Committee Grant (a Pro-rated Committee Grant) in an amount equal to (i) the quotient of the number of the full months remaining in the Corporation's then-current fiscal year divided by a 12 month fiscal year, multiplied by (ii) the amount of the Annual Committee Grants applicable for the Board committee positions to which the non-employee Board member has been appointed at the time of such calculation.

B. Exercise Price.

1. The exercise price per share shall be equal to one hundred percent (100%) of the Fair Market Value per share of Common Stock on the option grant date.

2. The exercise price shall be payable in one or more of the alternative forms authorized under the Discretionary Grant Program. Except to the extent the sale and remittance procedure specified thereunder is utilized, payment of the exercise price for the purchased shares must be made on the Exercise Date.

C. **Option Term.** Each option shall have a maximum term of ten (10) years measured from the option grant date, subject to earlier termination following the Optionee's cessation of Board and/or Board committee service.

D. **Exercise and Vesting of Options.** Each option shall be immediately exercisable for any or all of the option shares. However, any unvested shares purchased under the option shall be subject to repurchase by the Corporation, at the *lower* of (i) the exercise price paid per share or (ii) the Fair Market Value per share of Common Stock at the time of repurchase, upon the Optionee's cessation of Board and/or Board committee service prior to vesting in those shares. The shares subject to each initial 25,000-share grant shall vest, and the Corporation's repurchase right shall lapse, in a series of thirty-six (36) successive equal monthly installments upon the Optionee's completion of each month of service as a Board member over the three (3)-year period measured from the option grant date. The shares subject to each annual option grant made to a non-employee Board member for his or her continued Board or Board committee service shall vest, and the Corporation's repurchase right shall lapse, in one installment upon the Optionee's completion of one (1) year of Board service measured from the grant date.

Each Prorated Committee Grant shall vest in one installment on the first trading day in January of the year following the year in which the Pro-rated Committee Grant was made and the Corporation's right of repurchase shall lapse with respect to the shares subject to any such Pro-rated Committee Grant on such date.

E. **Limited Transferability of Options.** Each option under this Article Four may be assigned in whole or in part during the Optionee's lifetime to one or more of his or her Family Members or to a trust established exclusively for the Optionee and/or one or more such Family Members, to the extent such assignment is in connection with the Optionee's estate plan or pursuant to a domestic relations order. The assigned portion may only be exercised by the person or persons who acquire a proprietary interest in the option pursuant to the assignment. The terms applicable to the assigned portion shall be the same as those in effect for the option immediately prior to such assignment and shall be

set forth in such documents issued to the assignee as the Plan Administrator may deem appropriate. The Optionee may also designate one or more persons as the beneficiary or beneficiaries of his or her outstanding options under this Article Four, and the options shall, in accordance with such designation, automatically be transferred to such beneficiary or beneficiaries upon the Optionee's death while holding those options. Such beneficiary or beneficiaries shall take the transferred options subject to all the terms and conditions of the applicable agreement evidencing each such transferred option, including (without limitation) the limited time period during which the option may be exercised following the Optionee's death.

F. **Termination of Board Service.** The following provisions shall govern the exercise of any options held by the Optionee at the time the Optionee ceases to serve as a Board member:

B-15

Table of Contents

(i) The Optionee (or, in the event of Optionee's death while holding the option, the personal representative of the Optionee's estate or the person or persons to whom the option is transferred pursuant to the Optionee's will or the laws of inheritance or the designated beneficiary or beneficiaries of such option) shall have a twelve (12)-month period following the date of such cessation of Board service in which to exercise such option. However, should the Optionee cease Board service by reason of Retirement, Permanent Disability or death, the option will remain exercisable for the balance of the option term.

(ii) During the applicable post-Board service exercise period, the option may not be exercised in the aggregate for more than the number of vested shares of Common Stock for which the option is exercisable at the time of the Optionee's cessation of Board service.

(iii) Should the Optionee cease to serve as a Board member by reason of death or Permanent Disability, then all shares at the time subject to the option shall immediately vest so that such option may, during the remainder of the option term, be exercised for any or all of those shares as fully vested shares of Common Stock.

(iv) In no event shall the option remain exercisable after the expiration of the option term. Upon the expiration of the applicable post-Board service exercise period or (if earlier) upon the expiration of the option term, the option shall terminate and cease to be outstanding for any vested shares for which the option has not been exercised. However, the option shall, immediately upon the Optionee's cessation of Board service for any reason other than death or Permanent Disability, terminate and cease to be outstanding to the extent the option is not otherwise at that time exercisable for vested shares.

II. CHANGE IN CONTROL/HOSTILE TAKE-OVER/HOSTILE TENDER-OFFER

A. In the event of a Change in Control while the Optionee remains a Board member, the shares of Common Stock at the time subject to each outstanding option held by such Optionee under this Automatic Option Grant Program but not otherwise vested shall automatically vest in full so that each such option shall, immediately prior to the effective date of the Change in Control, become exercisable for all the option shares as fully vested shares of Common Stock and may be exercised for any or all of those vested shares. Immediately following the consummation of the Change in Control, each automatic option grant shall terminate and cease to be outstanding, except to the extent assumed by the successor corporation (or parent thereof) or otherwise continued in effect pursuant to the terms of the Change in Control transaction.

B. In the event of a Hostile Take-Over while the Optionee remains a Board member, the shares of Common Stock at the time subject to each outstanding option held by such Optionee under this Automatic Option Grant Program but not otherwise vested shall automatically vest in full so that each such option shall, immediately prior to the effective date of the Hostile Take-Over, become exercisable for all the option shares as fully vested shares of Common Stock and may be exercised for any or all of those vested shares. Each such option shall remain exercisable for such fully vested option shares until the expiration or sooner termination of the option term or the surrender of the option in connection with a Hostile Tender-Offer.

C. All outstanding repurchase rights under this under this Automatic Option Grant Program shall automatically terminate, and the shares of Common Stock subject to those terminated rights shall immediately vest in full, in the event of any Change in Control or Hostile Take-Over.

D. Upon the occurrence of a Hostile Tender-Offer while the Optionee remains a Board member, such Optionee shall have a thirty (30)-day period in which to surrender to the Corporation each of his or her outstanding options under this Automatic Option Grant Program. The Optionee shall in return be entitled to a cash distribution from the Corporation in an amount equal to the excess of (i) the Tender-Offer Price of the shares of Common Stock at the time subject to

each surrendered option (whether or not the Optionee is otherwise at the time vested in those shares) over (ii) the aggregate exercise price payable for such shares. Such cash distribution shall be paid within five (5) days following the surrender of the option to the Corporation. No approval or consent of the Board or any Plan Administrator shall be required at the time of the actual option surrender and cash distribution.

B-16

Table of Contents

E. Each option which is assumed in connection with a Change in Control or otherwise continued in effect shall be appropriately adjusted, immediately after such Change in Control, to apply to the number and class of securities which would have been issuable to the Optionee in consummation of such Change in Control had the option been exercised immediately prior to such Change in Control. Appropriate adjustments shall also be made to the exercise price payable per share under each outstanding option, provided the aggregate exercise price payable for such securities shall remain the same. To the extent the actual holders of the Corporation's outstanding Common Stock receive cash consideration for their Common Stock in consummation of the Change in Control, the successor corporation may, in connection with the assumption of the outstanding options under the Automatic Option Grant Program, substitute one or more shares of its own common stock with a fair market value equivalent to the cash consideration paid per share of Common Stock in such Change in Control transaction.

III. REMAINING TERMS

The remaining terms of each option granted under the Automatic Option Grant Program shall be the same as the terms in effect for option grants made under the Discretionary Grant Program.

B-17

Table of Contents

ARTICLE FIVE

MISCELLANEOUS

I. TAX WITHHOLDING

A. The Corporation's obligation to deliver shares of Common Stock upon the exercise of options or stock appreciation rights or the issuance or vesting of such shares under the Plan shall be subject to the satisfaction of all applicable income and employment tax withholding requirements.

B. The Plan Administrator may, in its discretion, provide any or all holders of Non-Statutory Options (other than the options granted under the Automatic Option Grant Program), stock appreciation rights, restricted stock units or any other share right awards pursuant to which vested shares of Common Stock are to be issued under the Plan and any or all Participants to whom vested or unvested shares of Common Stock are issued in a direct issuance under the Stock Issuance Program with the right to use shares of Common Stock in satisfaction of all or part of the Withholding Taxes to which such holders may become subject in connection with the exercise of their options or stock appreciation rights, the issuance to them of vested shares or the subsequent vesting of unvested shares issued to them. Such right may be provided to any such holder in either or both of the following formats:

Stock Withholding: The election to have the Corporation withhold, from the shares of Common Stock otherwise issuable upon the exercise of such Non-Statutory Option or stock appreciation right or upon the issuance of fully-vested shares, a portion of those shares with an aggregate Fair Market Value equal to the percentage of the Withholding Taxes (not to exceed one hundred percent (100%)) designated by the holder. The shares of Common Stock so withheld shall *not* reduce the number of shares of Common Stock authorized for issuance under the Plan.

Stock Delivery: The election to deliver to the Corporation, at the time the Non-Statutory Option or stock appreciation right is exercised, the vested shares are issued or the unvested shares subsequently vest, one or more shares of Common Stock previously acquired by such holder (other than in connection with the exercise, share issuance or share vesting triggering the Withholding Taxes) with an aggregate Fair Market Value equal to the percentage of the Withholding Taxes (not to exceed one hundred percent (100%)) designated by the holder. The shares of Common Stock so delivered shall not be added to the shares of Common Stock authorized for issuance under the Plan.

II. ASSUMPTION OR SUBSTITUTION OF OPTIONS

A. The shares of Common Stock reserved for issuance under the Plan may, in the sole discretion of the Plan Administrator, be used to fund one or more shares of Common Stock issuable upon the exercise of (i) any Code Section 422 incentive stock option originally granted by a corporation or other entity acquired by the Corporation (or any Parent or Subsidiary), whether by merger or asset or stock sale, and assumed by the Corporation in connection with that acquisition or (ii) any Incentive Option granted under this Plan in substitution for such incentive stock option of the acquired entity. Any such assumption or substitution of options shall not be deemed to contravene the option exercise price requirements of Section I.A of Article Two, even if the exercise price per share of Common Stock under the assumed or substituted option is less than one hundred percent (100%) of the Fair Market Value per share of Common Stock on the date such assumption or substitution is effected, provided all of the following requirements are satisfied:

(i) The excess of the aggregate Fair Market Value of the shares of Common Stock subject to the assumed or substituted option immediately after the assumption or substitution over the aggregate exercise price in effect for those shares is not greater than the excess of the aggregate fair market value of the shares of stock subject to the option immediately prior to such assumption or substitution over the aggregate exercise price payable for those shares.

(ii) The ratio of the exercise price to the Fair Market Value per share of Common Stock subject to the assumed or substituted option immediately after such assumption or substitution is no more favorable to the Optionee than the ratio of the exercise price to the fair market value per share immediately prior to such assumption or substitution.

B-18

Table of Contents

(iii) The assumed or substituted option does not provide the Optionee with any additional benefits the Optionee did not otherwise have under the option immediately prior to the assumption or substitution.

(iv) In the case of a substitution, the option granted by the acquired entity must be cancelled at the time of such substitution, and the Optionee must have no further rights under that cancelled option.

III. SHARE ESCROW/LEGENDS

Unvested shares may, in the Plan Administrator's discretion, be held in escrow by the Corporation until the Participant's interest in such shares vests or may be issued directly to the Participant with restrictive legends on the certificates evidencing those unvested shares.

IV. EFFECTIVE DATE AND TERM OF THE PLAN

A. The Plan became effective on the Plan Effective Date, and was approved by the stockholders at the 2004 Annual Meeting.

B. The Plan shall serve as the successor to the Predecessor Plan, and no further option grants or stock issuances shall be made under the Predecessor Plan following the 2004 Annual Meeting. All options outstanding under the Predecessor Plan at the time of the 2004 Annual Meeting were transferred to the Plan and shall be treated as outstanding options under the Plan. However, each outstanding option so transferred shall continue to be governed solely by the terms of the documents evidencing such option, and no provision of the Plan shall be deemed to affect or otherwise modify the rights or obligations of the holders of such transferred options with respect to their acquisition of shares of Common Stock.

C. The Plan was amended and restated effective February 10, 2006 to effect the following changes to the Automatic Option Grant Program: (i) increase the number of shares of common stock subject to each annual option grant under the Automatic Option Grant Program from 10,000 shares to 12,500 shares, and for the 2006 year only, change the grant date of such annual option grant and (ii) eliminate option grants awarded to Board members who serve as members of a Board committee. In addition, effective February 10, 2006, Plan was amended and restated to (i) amend the definition of Fair Market Value and (ii) establish the Board as the Plan Administrator.

D. One or more provisions of the Plan, including (without limitation) the option/vesting acceleration provisions of Article Two relating to Changes in Control and Hostile Take-Overs, may, in the Plan Administrator's discretion, be extended to one or more options incorporated from the Predecessor Plan which do not otherwise contain such provisions.

E. The Plan shall terminate upon the earliest to occur of (i) March 1, 2014, (ii) the date on which all shares available for issuance under the Plan shall have been issued as fully vested shares or (iii) the termination of all outstanding options, stock appreciation rights, restricted stock units and other share right awards in connection with a Change in Control. Should the Plan terminate on March 1, 2014, then all option grants, stock appreciation rights, unvested stock issuances, restricted stock units and other share right awards outstanding at that time shall continue to have force and effect in accordance with the provisions of the documents evidencing such grants, issuances or awards.

V. AMENDMENT OF THE PLAN

A. The Board shall have complete and exclusive power and authority to amend or modify the Plan in any or all respects. However, no such amendment or modification shall adversely affect the rights and obligations with respect to stock options, stock appreciation rights, unvested stock issuances or other stock-based awards at the time

outstanding under the Plan unless the Optionee or the Participant consents to such amendment or modification. In addition, amendments to the Plan will be subject to stockholder approval to the extent required under

B-19

Table of Contents

applicable law or regulation or pursuant to the listing standards of the stock exchange (or the Nasdaq National Market) on which the Common Stock is at the time primarily traded.

B. Options and stock appreciation rights may be granted under the Discretionary Grant Program and stock-based awards may be made under the Stock Issuance Program that in each instance involve shares of Common Stock in excess of the number of shares then available for issuance under the Plan, provided no shares shall actually be issued pursuant to those grants or awards until the number of shares of Common Stock available for issuance under the Plan is sufficiently increased either by (1) the automatic annual share increase provisions of Section V.B. of Article One or (2) the stockholder approval of an amendment of the Plan sufficiently increasing the share reserve. If stockholder approval is required and is not obtained within twelve (12) months after the date the first excess grant or award made against such contingent increase, then any options, stock appreciation rights or other stock-based awards granted on the basis of such excess shares shall terminate and cease to be outstanding.

VI. USE OF PROCEEDS

Any cash proceeds received by the Corporation from the sale of shares of Common Stock under the Plan shall be used for general corporate purposes.

VII. REGULATORY APPROVALS

A. The implementation of the Plan, the granting of any stock option, stock appreciation right or other stock-based award under the Plan and the issuance of any shares of Common Stock (i) upon the exercise or vesting of any granted option, stock appreciation right or other stock-based award or (ii) under the Stock Issuance Program shall be subject to the Corporation's procurement of all approvals and permits required by regulatory authorities having jurisdiction over the Plan, the stock options granted under it and the shares of Common Stock issued pursuant to it.

B. No shares of Common Stock or other assets shall be issued or delivered under the Plan unless and until there shall have been compliance with all applicable requirements of applicable securities laws, including the filing and effectiveness of the Form S-8 registration statement for the shares of Common Stock issuable under the Plan, and all applicable listing requirements of any Stock Exchange (or the Nasdaq National Market, if applicable) on which Common Stock is then listed for trading.

VIII. NO EMPLOYMENT/SERVICE RIGHTS

Nothing in the Plan shall confer upon the Optionee or the Participant any right to continue in Service for any period of specific duration or interfere with or otherwise restrict in any way the rights of the Corporation (or any Parent or Subsidiary employing or retaining such person) or of the Optionee or the Participant, which rights are hereby expressly reserved by each, to terminate such person's Service at any time for any reason, with or without cause.

Table of Contents

APPENDIX

The following definitions shall be in effect under the Plan:

A. **Automatic Option Grant Program** shall mean the automatic option grant program in effect under Article Four of the Plan.

B. **Board** shall mean the Corporation's Board of Directors.

C. **Change in Control** shall mean a change in ownership or control of the Corporation effected through any of the following transactions:

(i) a merger, consolidation or other reorganization approved by the Corporation's stockholders, unless securities representing more than fifty percent (50%) of the total combined voting power of the voting securities of the successor corporation are immediately thereafter beneficially owned, directly or indirectly and in substantially the same proportion, by the persons who beneficially owned the Corporation's outstanding voting securities immediately prior to such transaction,

(ii) a stockholder-approved sale, transfer or other disposition of all or substantially all of the Corporation's assets, or

(iii) the closing of any transaction or series of related transactions pursuant to which any person or any group of persons comprising a group within the meaning of Rule 13d-5(b)(1) of the 1934 Act (other than the Corporation or a person that, prior to such transaction or series of related transactions, directly or indirectly controls, is controlled by or is under common control with, the Corporation) becomes directly or indirectly the beneficial owner (within the meaning of Rule 13d-3 of the 1934 Act) of securities possessing (or convertible into or exercisable for securities possessing) more than fifty percent (50%) of the total combined voting power of the Corporation's securities (as measured in terms of the power to vote with respect to the election of Board members) outstanding immediately after the consummation of such transaction or series of related transactions, whether such transaction involves a direct issuance from the Corporation or the acquisition of outstanding securities held by one or more of the Corporation's existing stockholders.

D. **Code** shall mean the Internal Revenue Code of 1986, as amended.

E. **Common Stock** shall mean the Corporation's common stock.

F. **Corporation** shall mean ~~IntraBiotics Pharmaceuticals~~
Ardea Biosciences
, Inc., a Delaware corporation, and any corporate successor to all or substantially all of the assets or voting stock of ~~IntraBiotics Pharmaceuticals~~
Ardea Biosciences
, Inc. which has by appropriate action assumed the Plan.

G. **Discretionary Grant Program** shall mean the discretionary grant program in effect under Article Two of the Plan pursuant to which stock options and stock appreciation rights may be granted to one or more eligible individuals.

H. **Employee** shall mean an individual who is in the employ of the Corporation (or any Parent or Subsidiary, whether now existing or subsequently established), subject to the control and direction of the employer entity as to both the work to be performed and the manner and method of performance.

I. **Exercise Date** shall mean the date on which the Corporation shall have received written notice of the option exercise.

J. **Executive** shall mean any Employee of the Corporation who, immediately prior to the closing of a Change in Control transaction, holds the title of vice president or higher.

B-21

Table of Contents

K. **Fair Market Value** per share of Common Stock on any relevant date shall be determined in accordance with the following provisions:

(i) If the Common Stock is at the time traded on the Nasdaq National Market, then the Fair Market Value shall be the closing selling price per share of Common Stock on the date immediately preceding the date in question, as such price is reported by the National Association of Securities Dealers on the Nasdaq National Market and published in The Wall Street Journal. If there is no closing selling price for the Common Stock on the date immediately preceding the date in question, then the Fair Market Value shall be the closing selling price on the last preceding date for which such quotation exists.

(ii) If the Common Stock is at the time listed on any Stock Exchange, then the Fair Market Value shall be the closing selling price per share of Common Stock on the date immediately preceding the date in question on the Stock Exchange determined by the Plan Administrator to be the primary market for the Common Stock, as such price is officially quoted in the composite tape of transactions on such exchange and published in The Wall Street Journal. If there is no closing selling price for the Common Stock on the date immediately preceding the date in question, then the Fair Market Value shall be the closing selling price on the last preceding date for which such quotation exists.

(iii) If the Common Stock is at the time quoted on a national or regional securities exchange or market system (including over-the-counter markets) determined by the Plan Administrator to be the primary market for the Common Stock, then the Fair Market Value shall be the closing selling price ~~(or, if the Plan Administrator so determines, the mean of the closing bid and asked prices of a share of Common Stock)~~ per share of Common Stock on the date immediately preceding the date in question, as such price is officially reported by such exchange or market system. If there is no closing selling price ~~(or closing bid or asked price)~~ for the Common Stock on the date in question, then the Fair Market Value shall be the closing selling price ~~(or, if the Plan Administrator so determines, the mean of the closing bid and asked prices)~~ of a share of Common Stock on the last preceding date for which such quotation exists.

(iv) If the Fair Market Value of the Common Stock cannot be determined in accordance with the provisions of (i) through (iii) above, then the Fair Market Value shall be determined in a manner prescribed by the Plan Administrator after taking into account such factors as the Plan Administrator shall deem appropriate.

L. **Family Member** means, with respect to a particular Optionee or Participant, any child, stepchild, grandchild, parent, stepparent, grandparent, spouse, former spouse, sibling, niece, nephew, mother-in-law, father-in-law, son-in-law, daughter-in-law, bother-in-law or sister-in-law.

M. **Hostile Take-Over** shall mean a change in ownership or control of the Corporation effected through either of the following transactions:

(i) a change in the composition of the Board over a period of thirty-six (36) consecutive months or less such that a majority of the Board members ceases, by reason of one or more contested elections for Board membership, to be comprised of individuals who either (A) have been Board members continuously since the beginning of such period or (B) have been elected or nominated for election as Board members during such period by at least a majority of the Board members described in clause (A) who were still in office at the time the Board approved such election or nomination, or

(ii) a Hostile Tender-Offer.

N. **Hostile Tender-Offer** shall mean the acquisition, directly or indirectly, by any person or related group of persons (other than the Corporation or a person that directly or indirectly controls, is controlled by, or is under common control with, the Corporation) of beneficial ownership (within the meaning of Rule 13d-3 of the 1934 Act) of

securities possessing more than twenty percent (20%) of the total combined voting power of the Corporation's outstanding securities pursuant to a tender or exchange offer made directly to the Corporation's stockholders which the Board does not recommend such stockholders to accept.

B-22

Table of Contents

- O. **Incentive Option** shall mean an option which satisfies the requirements of Code Section 422.
- P. **Involuntary Termination** shall mean the termination of the Service of any individual which occurs by reason of:
- (i) such individual's involuntary dismissal or discharge by the Corporation (or any Parent or Subsidiary) for reasons other than Misconduct, or
- (ii) such individual's voluntary resignation following (A) a change in his or her position with the Corporation (or any Parent or Subsidiary) which materially reduces his or her duties and responsibilities or the level of management to which he or she reports, (B) a reduction in his or her level of compensation (including base salary, fringe benefits and target bonus under any corporate-performance based bonus or incentive programs) by more than fifteen percent (15%) or (C) a relocation of such individual's place of employment by more than fifty (50) miles, provided and only if such change, reduction or relocation is effected by the Corporation (or any Parent or Subsidiary) without the individual's consent.
- Q. **Misconduct** shall mean the commission of any act of fraud, embezzlement or dishonesty by the Optionee or Participant, any unauthorized use or disclosure by such person of confidential information or trade secrets of the Corporation (or any Parent or Subsidiary), or any other intentional misconduct by such person adversely affecting the business or affairs of the Corporation (or any Parent or Subsidiary) in a material manner. The foregoing definition shall not in any way preclude or restrict the right of the Corporation (or any Parent or Subsidiary) to discharge or dismiss any Optionee, Participant or other person in the Service of the Corporation (or any Parent or Subsidiary) for any other acts or omissions, but such other acts or omissions shall not be deemed, for purposes of the Plan, to constitute grounds for termination for Misconduct.
- R. **1934 Act** shall mean the Securities Exchange Act of 1934, as amended.
- S. **Non-Statutory Option** shall mean an option not intended to satisfy the requirements of Code Section 422.
- T. **Optionee** shall mean any person to whom an option is granted under the Discretionary Grant or Automatic Option Grant Program.
- U. **Parent** shall mean any corporation (other than the Corporation) in an unbroken chain of corporations ending with the Corporation, provided each corporation in the unbroken chain (other than the Corporation) owns, at the time of the determination, stock possessing fifty percent (50%) or more of the total combined voting power of all classes of stock in one of the other corporations in such chain.
- V. **Participant** shall mean any person who is issued shares of Common Stock or restricted stock units or other stock-based awards under the Stock Issuance Program.
- W. **Permanent Disability or Permanently Disabled** shall mean the inability of the Optionee or the Participant to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment expected to result in death or to be of continuous duration of twelve (12) months or more. However, solely for purposes of the Automatic Option Grant Program, Permanent Disability or Permanently Disabled shall mean the inability of the non-employee Board member to perform his or her usual duties as a Board member by reason of any medically determinable physical or mental impairment expected to result in death or to be of continuous duration of twelve (12) months or more.
- X. **Plan** shall mean the Corporation's 2004 Stock Incentive Plan, as set forth in this document.

Y. **Plan Administrator** shall mean the Board acting in its administrative capacity under the Plan.

Z. **Plan Effective Date** shall mean the March 2, 2004 date on which the Plan was adopted by the Board, subject to stockholder approval at the 2004 Annual Meeting.

B-23

Table of Contents

AA. **Predecessor Plan** shall mean the Corporation's 2000 Equity Incentive Plan in effect immediately prior to the 2004 Annual Stockholders Meeting.

BB. **Retirement** shall mean the termination of Employee status after the *later* of (i) the completion of five (5) years of Service in Employee status or (ii) attainment of age fifty-five (55). For purposes of any options granted under the Automatic Option Grant Program, Retirement shall mean the cessation of Board service after the *later* of (i) the completion of five (5) years of Board service or (ii) attainment of age fifty-five (55).

CC. **Section 16 Insider** shall mean an officer or director of the Corporation subject to the short-swing profit liabilities of Section 16 of the 1934 Act.

DD. **Service** shall mean the performance of services for the Corporation (or any Parent or Subsidiary, whether now existing or subsequently established) by a person in the capacity of an Employee, a non-employee member of the board of directors or a consultant or independent advisor, except to the extent otherwise specifically provided in the documents evidencing the option grant or stock issuance. Service shall not be deemed to cease during a period of military leave, sick leave or other personal leave approved by the Corporation; provided, however, that for a leave which exceeds ninety (90) days, Service shall be deemed, for purposes of determining the period within which any outstanding option held by the Optionee in question may be exercised as an Incentive Option, to cease on the ninety-first (91st) day of such leave, unless the right of that Optionee to return to Service following such leave is guaranteed by law or statute. Except to the extent otherwise required by law or expressly authorized by the Plan Administrator, no Service credit shall be given for vesting purposes for any period the Optionee or Participant is on a leave of absence.

EE. **Stock Exchange** shall mean either the American Stock Exchange or the New York Stock Exchange.

FF. **Stock Issuance Agreement** shall mean the agreement entered into by the Corporation and the Participant at the time of issuance of shares of Common Stock under the Stock Issuance Program.

GG. **Stock Issuance Program** shall mean the stock issuance program in effect under Article Three of the Plan.

HH. **Subsidiary** shall mean any corporation (other than the Corporation) in an unbroken chain of corporations beginning with the Corporation, provided each corporation (other than the last corporation) in the unbroken chain owns, at the time of the determination, stock possessing fifty percent (50%) or more of the total combined voting power of all classes of stock in one of the other corporations in such chain.

II. **10% Stockholder** shall mean the owner of stock (as determined under Code Section 424(d)) possessing more than ten percent (10%) of the total combined voting power of all classes of stock of the Corporation (or any Parent or Subsidiary).

JJ. **Tender-Offer Price** shall mean the *greater* of (i) the Fair Market Value per share of Common Stock on the date the option is surrendered to the Corporation in connection with a Hostile Tender-Offer or (ii) the highest reported price per share of Common Stock paid by the tender offeror in effecting such Hostile Tender-Offer. However, if the surrendered option is an Incentive Option, the Tender-Offer Price shall not exceed the clause (i) price per share.

KK. **Withholding Taxes** shall mean the applicable income and employment withholding taxes to which the holder of an option or stock appreciation right or shares of Common Stock under the Plan may become subject in connection with the grant or exercise of those options or stock appreciation rights or the issuance or vesting of those shares.