

CRYOLIFE INC  
Form 10-K  
February 16, 2016  
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**UNITED STATES**  
**SECURITIES AND EXCHANGE COMMISSION**  
**Washington, D.C. 20549**  
**FORM 10-K**

(Mark One)

**ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2015

**OR**

**TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

**For the transition period from** \_\_\_\_\_ **to** \_\_\_\_\_

Commission file number 1-13165

**CRYOLIFE, INC.**

(Exact name of registrant as specified in its charter)

**Florida**

**59-2417093**

(State or other jurisdiction of incorporation or organization)

(I.R.S. Employer Identification No.)

1655 Roberts Boulevard N.W., Kennesaw, GA 30144

(Address of principal executive offices) (zip code)

Registrant's telephone number, including area code (770) 419-3355

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

**Title of each class**

**Name of each exchange on which registered**

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Common Stock, \$.01 par value

New York Stock Exchange

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

None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes  No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

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 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 if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K Section 229.405 of this chapter is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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, a non-accelerated filer, or a smaller reporting company. See definitions of "large accelerated filer", "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one).

Large accelerated filer  Accelerated filer  Non-accelerated filer  Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes  No

As of June 30, 2015 the aggregate market value of the voting stock of the Registrant held by non-affiliates of the registrant was \$285,707,713 computed using the closing price of \$11.28 per share of Common Stock on June 30, 2015, the last trading day of the registrant's most recently completed second fiscal quarter, as reported by the New York Stock Exchange, based on management's belief that Registrant has no affiliates other than its directors and executive officers.

As of February 11, 2016 the number of outstanding shares of Common Stock of the registrant was 32,254,625.

**Documents Incorporated By Reference**

<b>Document</b>	<b>Parts Into Which Incorporated</b>
Proxy Statement for the Annual Meeting of Stockholders	Part III

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to be filed within 120 days after December 31, 2015.

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**Forward-Looking Statements**

*We have made forward-looking statements in this Form 10-K that are within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Exchange Act. Forward-looking statements give our current expectations or forecasts of future events. The words could, may, might, will, would, shall, should, pro forma, potential, pending, intend, believe, expect, anticipate, estimate, plan, future, and other similar expressions generally identify forwarding-looking statements. These forward-looking statements are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Readers are cautioned not to place undue reliance on these forward-looking statements. Such forward-looking statements reflect the views of management at the time such statements are made and are subject to a number of risks, uncertainties, estimates, and assumptions, including, without limitation, in addition to those identified in the text surrounding such statements, those identified under Part I, Item 1A, Risk Factors and elsewhere in this Form 10-K.*

All statements, other than statements of historical facts, included herein that address activities, events or developments that the Company expects or anticipates will or may occur in the future, are forward-looking statements, including statements regarding:

Our beliefs and estimates regarding the potential benefits and additional applications of our surgical adhesives, sealants, hemostats, CardioGenesis cardiac laser therapy, On-X heart valves, PhotoFix, and ProCol products;

Our estimates regarding specific country and worldwide market opportunities for certain types of procedures and products, and our products and tissues;

Our beliefs and estimates regarding our competitors in various geographic, procedure, and product markets, including non-profit competitors;

Our beliefs regarding the potential for competitive products and services to affect the market for our products and services;

Our beliefs regarding the enhanced efficacy of certain procedures provided by using our surgical sealants;

Our plans, costs, and expected timeline regarding regulatory approval for PerClot in the U.S. and additional international markets and the distribution of PerClot in those markets after the requisite regulatory approvals are obtained; and the Company's expectation that it will terminate its minimum purchase requirements after regulatory approval of PerClot;

Our expectations regarding the benefits of the Company's marketing, educational and technical support efforts;

Our beliefs regarding the advantages of the human tissues, heart valves, and other products we preserve and distribute;

The anticipated effect of suppliers /sources inability to deliver critical raw materials or tissues and/or us having to source supply from an alternate supplier;

Our beliefs regarding the importance of, and competitive advantages associated with, our relationships with tissue procurement organizations;

Our belief regarding our compliance with NOTA, state licensing requirements, and environmental laws and regulations;

Our belief that countries in which we distribute our products and tissue may perform inspections of our facilities to ensure compliance with local country regulations;

Our belief that there can be no assurance that the German authorities will continue to allow shipments of our tissues under a special access program in the future;

Our potential attempt to license certain products to corporate partners for further development or seek funding from outside sources to continue commercial development when additional applications for such products are identified, and our potential attempt to acquire or license additional technologies from third-parties to supplement our product lines;

Our plans and expectations regarding research and development of new technologies and products;;

Our expectation to complete the final study report for BioFoam s use in cardiovascular applications in the first quarter of 2016;

Our beliefs regarding the adequacy of, and competitive advantages conferred by, our intellectual property protections;

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Management's beliefs regarding the state of relations with our employees;

Our belief that U.S. and international healthcare policy and regulatory changes may have a material adverse effect on our business;

The potential impact of the FDA's classification of CryoValve SGPV as a class III device;

Our expectations regarding the limitations on the recoverability of our acquired net operating loss carryforwards in future periods;

Our plans regarding acquisition and investment opportunities of complementary product lines and companies;

Our belief that a significant change in management's estimates used to value acquired asset groups or business combinations could result in future write-downs of tangible or intangible assets acquired by us and, therefore, could materially impact our financial position and profitability;

Our assessment of the effects of adopting new accounting standards regarding the recognition of revenue from contracts with customers, the simplified measurement of inventory, and the balance sheet classification of deferred taxes;

Our potential plan to pursue expanded U.S. indications for BioGlue and our beliefs regarding the international growth opportunities that would be provided by obtaining regulatory approval for BioGlue in China;

Our beliefs regarding the seasonal nature of the demand for some of our products and services;

The adequacy of our financial resources and our belief that we will have sufficient cash to meet our operational liquidity needs for at least the next twelve months;

The anticipated impact on cash flows of us undertaking significant business development activities in 2016 and the potential need to obtain additional borrowing capacity or financing;

The future cash requirements that we anticipate may have a significant effect on our cash flows during 2016;



Our belief that if we are unable to secure full satisfaction or repayment of the amounts owed to us by Hancock Jaffe related to the ProCol product line, or sell our interest in the agreement for an amount equal to or in excess of the carrying value of the related assets, the prepayment may become impaired in future periods;

Issues that may affect our future financial performance and cash flows; and

Other statements regarding future plans and strategies, anticipated events, or trends.

*These forward-looking statements are based on certain of our assumptions and analyses in light of our experience and our perception of historical trends, current conditions, and expected future developments as well as other factors we believe are appropriate in the circumstances. However, whether actual results and developments will conform with our expectations and predictions is subject to a number of risks and uncertainties which could cause actual results to differ materially from our expectations, including, without limitation, in addition to those specified in the text surrounding such statements, the risk factors discussed in Item 1A of this Form 10-K and other factors, many of which are beyond our control. Consequently, all of the forward-looking statements made in this Form 10-K are qualified by these cautionary statements, and there can be no assurance that the actual results or developments anticipated by us will be realized or, even if substantially realized, that they will have the expected consequences to, or effects on, our business or operations. We assume no obligation to update publicly any such forward-looking statements, whether as a result of new information, future events, or otherwise.*

**Table of Contents****PART I****Item 1. Business.****Overview**

CryoLife, Inc. (CryoLife, the Company, we, or us), incorporated in 1984 in Florida, is a leader in medical device manufacturing and distribution and in the processing and distribution of implantable human tissues for use in cardiac and vascular surgeries. CryoLife's surgical sealants and hemostats include BioGlue® Surgical Adhesive (BioGlue), BioFoam® Surgical Matrix (BioFoam), and PerCutan absorbable powdered hemostat, which the Company distributes internationally for Starch Medical, Inc. (SMI). CryoLife's CardioGenesis cardiac laser therapy product line, which includes a laser console system and single-use, fiber-optic handpieces, is used for the treatment of coronary artery disease in patients with severe angina. CryoLife is the exclusive distributor of ProCol® Vascular Bioprosthesis (ProCol) for Hancock Jaffe Laboratories, Inc. (Hancock Jaffe). CryoLife marketed the Hemodialysis Reliable Outflow Graft (HeRO® Graft) through February 3, 2016. Both HeRO Graft and ProCol are solutions for end-stage renal disease (ESRD) in certain hemodialysis patients. CryoLife is the exclusive distributor of PhotoFix for Genesee Biomedical, Inc. (GBI). PhotoFix is a bovine pericardial patch stabilized using a dye-mediated photo-fixation process that requires no glutaraldehyde. The cardiac and vascular human tissues distributed by CryoLife include the CryoValve® SG pulmonary heart valve (CryoValve SGPV) and the CryoPatch® SG pulmonary cardiac patch tissue (CryoPatch SG), both of which are processed using CryoLife's proprietary SynerGraft technology.

**Recent Events*****Acquisition of On-X Life Technologies***

On December 22, 2015 the Company entered into the Agreement and Plan of Merger to acquire On-X Life Technologies Holdings, Inc., (On-X), an Austin, Texas-based, privately held mechanical heart valve company. The transaction closed on January 20, 2016 and On-X will be operated as a wholly-owned subsidiary of CryoLife.

The On-X catalogue of products includes the On-X prosthetic aortic and mitral heart valve and the On-X ascending aortic prosthesis (AAP). On-X also distributes CarbonAid 2 Diffusion catheters, manufactures Chord-X ePTFE sutures for mitral chordal replacement, and offers pyrolytic carbon coating services to other medical device manufacturers.

The On-X heart valve is a bileaflet mechanical valve composed of a graphite substrate coated with On-X's pyrolytic carbon coating. The On-X heart valve is available for both aortic and mitral indications and with a variety of sewing ring options to suit physician's preferences. The On-X AAP is an On-X aortic valve combined with a Vascutek Gelweave Valsava™ Graft to allow physicians to more conveniently treat patients requiring both an aortic valve replacement and an aortic graft.

All mechanical valve patients require anticoagulation therapy with warfarin which creates a risk of harmful bleeding. The On-X aortic heart valve is the only mechanical valve U.S. Food and Drug Administration (FDA) approved and clinically proven to be safer with less warfarin. In a prospective randomized clinical trial comparing reduced warfarin to standard warfarin dose in On-X aortic heart valve patients, the reduced warfarin dose group had 65% fewer harmful bleeding events without an increase in stroke risk.

The On-X heart valve is FDA approved for the replacement of diseased, damaged, or malfunctioning native or prosthetic heart valves in the aortic and mitral positions, and is classified as a Class III medical device. On-X

distributes the On-X heart valve under Conformité Européene Mark product certification ( CE Mark ) in the EEA. Additional marketing approvals have been granted in several other countries throughout the world. On-X s heart valves compete primarily with mechanical valves from St. Jude Medical, Inc., Medtronic, Inc., and LivaNova PLC based on its benefits and features, such as its lower warfarin requirement, low turbulence, and increased thromboresistance.

The On-X facility consists of approximately 75,000 square feet of combined manufacturing, warehouse, and office space in Austin, Texas. As of December 31, 2015 On-X had approximately 135 employees.

***Divestiture of the HeRO Graft Product Line***

On February 3, 2016 the Company sold its HeRO Graft product line to Merit Medical Systems, Inc. ( Merit ) for \$18.5 million in cash. Under terms of the agreement, Merit acquired the HeRO Graft product line, including worldwide marketing

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rights, customer relationships, intellectual property, inventory, and certain property and equipment. The Company will continue to manufacture the HeRO Graft for up to six months under a transition supply agreement, after which Merit will be responsible for manufacturing. The disposal of the HeRO Graft is part of a strategic shift of the Company to focus on cardiac surgery products, including the On-X heart valve.

The HeRO Graft product line was included as part of the Company's Medical Devices segment. The Company is in the process of completing the accounting related to this sale, including an allocation of its medical device segment goodwill to the divested business using a relative fair value allocation method. The Company anticipates recording a gain on the transaction upon the completion of the accounting. The assets divested in this transaction did not meet the criteria to be reported as assets held for sale as of December 31, 2015.

## **Corporate Structure**

CryoLife's main operating subsidiaries include CryoLife Europa Ltd. (Europa), established in 2000 to provide marketing and distribution support in the European Economic Area (EEA), the Middle East, and Africa (collectively EMEA), CryoLife Asia Pacific, Pte. Ltd. (CryoLife Asia Pacific), established in Singapore in 2013 to provide sales and marketing support for the Asia Pacific region, CryoLife France, SAS, established in 2015 to provide direct sales operations in France, and On-X, acquired on January 20, 2016 as discussed above. CryoLife acquired Cardiogenesis Corporation and its cardiac laser therapy product line in May 2011 and Hemosphere, Inc. (Hemosphere) and its HeRO Graft product in May 2012. These companies were operated as subsidiaries of CryoLife from their respective acquisition dates until December 31, 2014, when they were merged into the CryoLife, Inc. parent entity.

## **Segments and Geographic Information**

CryoLife has two reportable segments organized according to its products and services: Medical Devices and Preservation Services. The Medical Devices segment includes external revenues from product sales of BioGlue, BioFoam, PerClot, CardioGenesis cardiac laser therapy, HeRO Graft, and ProCol. The Preservation Services segment includes external services revenues from the preservation of cardiac and vascular tissues. See also Part II, Item 8, Note 19 of the Notes to Consolidated Financial Statements for further information on the Company's segments and for the Company's geographic information.

## **Strategy**

The Company's strategic plan is focused on four growth vectors in the cardiac surgery space which are expected to drive the Company's business expansion in the near term. These growth vectors and their key elements are described below:

*New Products* Drive growth through the rollout of the Company's new products including the On-X heart valve, PhotoFix, and PerClot;

*New Indications* Broaden the reach of certain of the Company's products, including the On-X heart valve, BioGlue, and PerClot, with new or expanded approvals and indications in the U.S. or in international markets;

*Global Expansion* Expand the Company's current products and services into new markets, including emerging markets, and accelerate growth by developing new direct sales territories overseas; and

*Business Development* Selectively pursue potential acquisition, licensing, or distribution rights of companies or technologies that complement CryoLife's existing products, services, and infrastructure and expand our footprint in the cardiac surgery space, such as the recent acquisition of On-X, as well as divestitures of certain of our non-cardiac surgery product lines, such as HeRO Graft, to be able to focus on expanding our cardiac surgery footprint.

### **Products, Services, Markets, and Competition**

The Company's products and preservation services are used to treat a variety of medical conditions. A discussion of each market in which the Company competes and a description of the Company's products and/or services that compete within each market are discussed below.

The Company faces competition from several domestic and international medical device, pharmaceutical, and biopharmaceutical companies and from both for-profit and non-profit tissue banks. Many of the Company's current and potential competitors have substantially greater financial and personnel resources than the Company. These competitors may also have greater experience in developing products, procuring tissues, conducting clinical trials, and obtaining regulatory approvals and may have large contracts with hospitals under which they can impose purchase requirements that place the

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Company's products at a disadvantage. Certain of these competitors may obtain patent protection or approval or clearance by the FDA or foreign regulators earlier than the Company. The Company may also compete with companies that have superior manufacturing efficiency, tissue processing capacity, and/or marketing capabilities. Additional competitive products may be under development which could compete with the Company's products or services in the future. There can be no assurance that the Company's current or future competitors will not succeed in developing alternative technologies, products, or services that have significant advantages over those that have been, or are being developed, by the Company or that would render the Company's products or technology obsolete and non-competitive. Any of these competitive disadvantages could materially, adversely affect the Company. Specific competitive products currently on the market are discussed in the sections below.

***Surgical Sealants***

Closing internal wounds effectively following surgical procedures is critical to the restoration of the function of tissue and to the ultimate success of the surgical procedure. Failure to effectively seal surgical wounds can result in leakage of blood in cardiac surgeries, air in lung surgeries, cerebrospinal fluid in neurosurgeries, and gastrointestinal contents in abdominal surgeries. Fluid, air, and content leakage resulting from surgical procedures can lead to prolonged hospitalization, higher levels of post-operative pain, higher costs, and a higher mortality rate.

Sutures and staples facilitate healing by joining wound edges to allow the body to heal naturally. However, sutures and staples cannot consistently eliminate air and fluid leakage at the wound site, particularly when used to close tissues containing air or fluids under pressure, such as in blood vessels, the lobes of the lung, the dural membrane surrounding the brain and spinal cord, and the gastrointestinal tract. In some cases, the tissues may be friable, which complicates the ability to achieve closure. In addition, it can be difficult and time consuming for the physician to apply sutures and staples in minimally invasive surgical procedures where the physician must operate through small access openings. The Company believes that the use of surgical adhesives and sealants with, or without, sutures and staples could enhance the efficacy of these procedures through more effective and rapid wound closure. In order to address the inherent limitations of sutures and staples, the Company developed and commercialized its protein hydrogel technology ( PHT ) platform. The PHT platform is based on a bovine protein that mirrors an array of amino acids that perform complex functions in the human body. Together with a cross-linker, the protein forms a hydrogel, a water-based biomaterial somewhat similar to human tissue. Materials and implantable replacement devices created with PHT may have the potential to provide structure, form, and function similar to certain human tissues. CryoLife developed and currently markets the surgical sealants BioGlue and BioFoam from its PHT platform.

***BioGlue***

CryoLife's proprietary product, BioGlue, is a polymer consisting of bovine blood protein and an agent for cross-linking proteins, which was developed for use in cardiac, vascular, pulmonary, and general surgical applications. BioGlue has a tensile strength that is four to five times that of fibrin sealants, and it is stronger than other cardiovascular sealants. BioGlue begins to polymerize within 20 to 30 seconds and reaches its bonding strength within two minutes. BioGlue is dispensed by a controlled delivery system that consists of a disposable syringe, which may be used with, or without, a multi-use delivery device, and various applicator tips. BioGlue is pre-filled in 2ml, 5ml, and 10ml volumes. Applicator tips are available in standard size, 12mm and 16mm spreader tips, 10cm and 27cm flexible extender tips, and 10cm, 27cm, and 35cm delivery tip extenders.

BioGlue is FDA approved as an adjunct to sutures and staples for use in adult patients in open surgical repair of large vessels. CryoLife distributes BioGlue under Conformité Européene Mark product certification ( CE Mark ) in the EEA for repair of soft tissues (which include cardiac, vascular, pulmonary, and additional soft tissues). CryoLife also distributes BioGlue in Japan which is indicated for adhesion and support of hemostasis for aortotomy closure sites,

suture/anastomosis sites (including aortic dissection and anastomosis sites with use of a prosthetic graft), and suture sites on the heart. Additional marketing approvals have been granted for specified applications in several other countries throughout the world.

CryoLife distributes BioGlue throughout the U.S. and in approximately 80 other countries. Revenues from BioGlue represented 40%, 43%, and 41%, of total Company revenues in each of 2015, 2014, and 2013, respectively.

The Company's BioGlue products compete primarily with sealants from Baxter International, Inc., Ethicon, Inc. (a Johnson & Johnson Company), Integra LifeSciences Holdings Corporation, C.R. Bard, Inc. (Bard), and Mallinckrodt PLC. The Company's BioGlue competes with these products based on its benefits and features, such as strength and ease of use.

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### *BioFoam*

CryoLife's proprietary product, BioFoam, is a protein hydrogel biomaterial with an expansion agent, which generates a mixed-cell foam. The foam creates a mechanical barrier to decrease blood flow and develops pores for the blood to enter, leading to cellular aggregation and enhanced hemostasis. BioFoam was developed to rapidly seal organs, such as the liver, and for use in cardiovascular surgeries, and may provide hemostasis in penetrating wounds and trauma. It is easily applied and could potentially be used intra-operatively to control internal organ hemorrhage, limit blood loss, and reduce the need for future re-operations in liver resections.

CryoLife distributes BioFoam in Europe under a CE Mark for use as an adjunct in the sealing of abdominal parenchymal tissues (liver and spleen) and as an adjunct to hemostasis in cardiovascular surgery when cessation of bleeding by ligature or other conventional methods is ineffective or impractical.

CryoLife distributes BioFoam in approximately 44 countries, primarily in Europe. Revenues from BioFoam represented less than 1% of total Company revenues in each of 2015, 2014, and 2013.

The Company's BioFoam product competes with sealants from Pfizer, Inc., Baxter International, Inc., Ethicon, Inc., Bard, and Orthovita, Inc. The Company's BioFoam product competes on the basis of its clinical efficacy and ease of use.

### *Hemostats*

Hemostatic agents are frequently utilized as an adjunct to sutures and staples to control inter-operative bleeding. Hemostatic agents prevent excess blood loss and can help maintain good visibility of the operative site. These products may reduce operating room time and decrease the number of blood transfusions required in surgical procedures. Hemostatic agents are available in various forms including pads, sponges, liquids, and powders. CryoLife currently markets the hemostatic agent PerClot.

### *PerClot*

PerClot is an absorbable powdered hemostat, consisting of plant starch modified into ultra-hydrophilic, adhesive-forming hemostatic polymers. PerClot granules are biocompatible, absorbable polysaccharides containing no animal or human components. The purified plant source material helps to minimize the risks of infection and bleeding-related complications during surgery. PerClot granules have a molecular structure that rapidly absorbs water, forming a gelled adhesive matrix that provides a mechanical barrier to further bleeding and results in the accumulation of platelets, red blood cells, and coagulation proteins (thrombin, fibrinogen, etc.) at the site of application. This gelled adhesive matrix promotes the normal physiological clotting cascade. PerClot does not require additional operating room preparation or special storage conditions and is easy to apply. PerClot is readily dissolved by saline irrigation and is totally absorbed by the body within several days. PerClot is currently available in 1 gram, 3 gram, and 5 gram configurations with a 100mm or 200mm applicator tip for certain sizes. PerClot Laparoscopic is available in a 3 gram configuration with a 380mm applicator tip. In September 2010 CryoLife entered into a distribution agreement and a license and manufacturing agreement with SMI, which allows CryoLife to distribute PerClot worldwide, except in China, Hong Kong, Macau, Taiwan, North Korea, Iran, and Syria.

PerClot has a CE Mark allowing commercial distribution into the EEA and other markets. PerClot is indicated for use in surgical procedures, including cardiac, vascular, orthopaedic, neurological, gynecological, ENT, and trauma surgery as an adjunct hemostat when control of bleeding from capillary, venular, or arteriolar vessels by pressure, ligature, and other conventional means is either ineffective or impractical. CryoLife distributes PerClot in Europe and



other international countries. CryoLife plans to begin distribution of PerClot in additional international markets as required regulatory approvals are obtained.

In April 2014 CryoLife received 510(k) clearance from the FDA to market PerClot Topical in the U.S. PerClot Topical is a version of the Company's PerClot product, which was manufactured by the Company at its headquarters and labeled for use in certain topical indications. CryoLife launched PerClot Topical in August 2014. However, in March 2015 CryoLife ceased all marketing, sales, and distribution of PerClot, including PerClot Topical, in the U.S. in accordance with the U.S. District Court for the District of Delaware (the Court) order that granted the motion of Medafor Inc. (Medafor) for a preliminary injunction in its patent dispute with CryoLife. In November 2015 CryoLife and Medafor entered into a resolution to end this patent dispute. As part of the resolution, the Court's preliminary injunction entered in March 2015 precluding CryoLife's marketing, sale, or distribution of PerClot in the U.S. will remain in effect until the expiration of Medafor's U.S. Patent No. 6,060,461 (the 461 Patent) on February 8, 2019. See Part I, Item 3, Legal Proceedings for discussion of the Company's litigation with Medafor.

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CryoLife has received approval to begin clinical trials for the purpose of obtaining FDA Premarket Approval ( PMA ) to distribute PerClot in the U.S., as discussed further in Research and Development and Clinical Research below.

CryoLife distributes PerClot in approximately 58 countries. Revenues from PerClot represented 3% of total Company revenues in each of 2015, 2014, and 2013, respectively.

The Company's PerClot products compete with various hemostats including thrombin products from Pfizer, Inc., Mallinckrodt PLC, and Ethicon, Inc., and surgical hemostats from Pfizer, Inc., Bard, Baxter International, Inc., Ethicon, Inc., and BioCer Entwicklungs-GmbH. Other competitive products may include argon beam coagulators, which provide an electrical source of hemostasis. A number of companies have surgical hemostat products under development. The Company's PerClot Topical product competes with many of the same products listed above, but also competes with products from Medtronic, Inc., Polyganics B.V., and Hemostasis, LLC, as well as gauze and chemical cauterization. The Company's PerClot products compete on the basis of safety, clinical efficacy, absorption rates, and ease of use.

### ***Angina Treatment***

Angina consists of pressure, discomfort, and/or pain in the chest typically due to narrowed or blocked arteries, resulting in ischemic heart disease. Patients with severe angina are often treated with surgical procedures including angioplasty or coronary artery bypass or with medications such as aspirin, nitrates, beta blockers, statins, or calcium channel blockers. Pain may be chronic or may become pronounced with exercise. Angina can also be treated with Transmyocardial Revascularization ( TMR ), a procedure that can be performed as an open surgical procedure or through a minimally invasive surgery either as a stand-alone procedure or concurrently with coronary artery bypass. During TMR, the surgeon uses a disposable handpiece to deliver precise bursts of laser energy directly to an area of heart muscle that is suffering from ischemic heart disease through a small incision or small ports with the patient under general anesthesia and without stopping the heart. TMR is typically performed with a CO<sub>2</sub> or Holmium: YAG laser. It takes approximately 6 to 10 pulses of the laser to traverse the myocardium and create channels of one millimeter in diameter. During a typical procedure, approximately 20 to 40 channels are made in the heart muscle. The external openings seal with little blood loss. Published research provides evidence that these channels promote the growth of new blood vessels or angiogenesis over time. That, in turn, provides the damaged heart tissue a better supply of blood and oxygen. Angina usually subsides with improved oxygen supply to the targeted areas of the damaged heart muscle. CryoLife currently sells the CardioGenesis cardiac laser therapy product line to perform TMR.

### ***CardioGenesis Cardiac Laser Therapy***

CryoLife's CardioGenesis cardiac laser therapy product line consists of Holmium: YAG laser consoles, related service and maintenance, and single-use, fiber-optic handpieces, which are used in TMR to treat patients with severe angina resulting from diffuse coronary artery disease. Patients undergoing TMR treatment with CardioGenesis products have been shown to have angina reduction, longer event-free survival, reduction in cardiac related hospitalizations, and increased exercise tolerance. CryoLife's SolarGen 2100s Console ( Console ) uses the solid state technology of the Holmium: YAG laser system to provide a stable and reliable energy platform that is designed to deliver precise energy output. The Console has an advanced electronic and cooling system technology, which allows for a smaller and lighter system, while providing 115V power capability. The Company also provides service plan options to ensure that the Console is operating within the critical factory specifications. CryoLife distributes the SoloGrip® III, and the Port Enabled Angina Relief with Laser ( PEARL ) 5.0 disposable handpieces, which consist of multiple, fine fiber-optic strands in a one millimeter diameter bundle and are designed to work with the Console. The SoloGrip III handpiece has an ergonomic design and is pre-calibrated in the factory to provide easy and convenient access for treating all regions of the left ventricle. The PEARL 5.0 handpiece is compatible for use with Intuitive Surgical's da Vinci

Surgical System for use in minimally invasive surgeries.

The CardioGenesis cardiac laser therapy product line is FDA approved for treating patients with severe angina that is not responsive to conventional therapy. CryoLife began distributing the CardioGenesis cardiac laser therapy product line, primarily in the U.S., in May 2011 when it completed the acquisition of Cardiogenesis Corporation. Although the CardioGenesis cardiac laser therapy product line has a CE Mark allowing commercial distribution into the EEA, CryoLife does not actively market the product line internationally.

CryoLife distributes handpieces and CardioGenesis laser consoles primarily in the U.S. Revenues from CardioGenesis cardiac laser therapy represented 6% of total Company revenues in each of 2015, 2014, and 2013.

The Company's CardioGenesis cardiac laser therapy competes with other methods for the treatment of coronary artery disease, including drug therapy, percutaneous coronary intervention, coronary artery bypass surgery, and enhanced external

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counterpulsation. Currently, the only directly competitive laser technology for the performance of TMR is the CO<sub>2</sub> Heart Laser System manufactured by Novadaq Technologies, Inc. The Company's revascularization technology competes on the basis of its ease of use, versatility, size of laser console, and improved access to the treatment area with a smaller fiber-optic system.

### ***Vascular Access***

ESRD refers to the stage of renal disease when the kidneys do not work well enough for the patient to live without dialysis or transplant. This can result in severe electrolyte disturbance and toxic levels of waste products in the blood which are normally filtered and eliminated by the kidneys. Patients with ESRD often undergo hemodialysis to remove waste products and fluid from the blood, which can take several hours per treatment and often must be performed multiple times each week. Individuals may seek a kidney transplant for a more permanent solution to ESRD, but may wait for months or years before a donor organ is available. In order to perform hemodialysis, blood must be taken from the body, cleaned, and returned to the body through an access site. Typical access sites used to perform hemodialysis include arteriovenous ( AV ) fistulas, synthetic or biologic vascular access grafts, or catheters. AV fistulas and vascular access grafts may take weeks or months to mature before they can be used as an access site. Catheters are often the last option for vascular access as they tend to have a higher risk of becoming occluded or infected. CryoLife currently markets ProCol and previously marketed the HeRO Graft for vascular access.

### ***ProCol***

ProCol is a biological graft derived from a bovine mesenteric vein that provides vascular access for ESRD hemodialysis patients. ProCol provides vascular access for ESRD patients in an earlier stage of the treatment protocol than the HeRO Graft. In March 2014 CryoLife entered into a distribution agreement with Hancock Jaffe, which grants CryoLife the exclusive right to distribute ProCol worldwide. Clinical data shows that ProCol provides excellent patency for patients who have had repeated failures of other grafts. ProCol is FDA approved for sale in the U.S. as a bridge graft for vascular access subsequent to at least one previously failed prosthetic access graft.

CryoLife distributes ProCol in the U.S. Revenues from ProCol represented 1% of total Company revenues in 2015 and less than 1% of total Company revenues in 2014.

ProCol competes with products including balloon angioplasty products from Bard and Boston Scientific Corp., bare metal stents from Boston Scientific Corp., and covered stents from W.L. Gore & Associates ( Gore ). ProCol competes on the basis of its superior handling characteristics, long-term patency, and lower rates of infection, thrombosis, and intervention compared to synthetic grafts.

### ***HeRO Graft***

The HeRO Graft is a proprietary graft-based solution for ESRD hemodialysis patients with limited access options and central venous stenosis (narrowing of the venous system).

The HeRO Graft has a 510(k) clearance from the FDA for ESRD patients who are either catheter dependent or approaching catheter dependency, on long-term hemodialysis, and have exhausted all other access options, as well as for patients with failing fistulas and grafts due to central venous stenosis. The HeRO Graft received a CE Mark in 2013. CryoLife began distributing the HeRO Graft in the U.S. in May 2012 when it acquired Hemosphere and distributed the product until the Company divested the product line in February 2016.

CryoLife distributed the HeRO Graft in the U.S. and approximately 40 other countries. Revenues from the HeRO Graft represented 5%, 5%, and 4% of total Company revenues in 2015, 2014, and 2013, respectively.

***Cardiac and Vascular Repair and Reconstruction***

Patients with congenital cardiac defects such as Tetralogy of Fallot, Truncus Arteriosus, and Pulmonary Atresia can require complex cardiac reconstructive surgery to repair the defect. Patients with heart disease can experience valve insufficiency, regurgitation, or stenosis that may require heart valve repair or replacement surgery. Cardiac surgery can include the implantation of biological tissues, such as donated human tissues or animal-derived (xenograft) tissues, synthetic tissues, or mechanical valves. Human heart valves allow for more normal blood flow and provide higher cardiac output than animal-derived and mechanical heart valves. Human heart valves are not as susceptible to progressive calcification, or hardening, as are traditional glutaraldehyde-fixed, animal-derived heart valves, and do not require anti-coagulation drug

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therapy, as do mechanical valves. The synthetic sewing rings contained in many animal based or mechanical valves may harbor bacteria and lead to endocarditis, which can be difficult to treat with antibiotics, and this usually necessitates the surgical removal of these valves at considerable cost, morbidity, and risk of mortality. Consequently, for many physicians, human heart valves are the preferred alternative to animal-derived and mechanical valves for patients who have, or are at risk to contract, endocarditis.

The 2013 Society of Thoracic Surgeons Guidelines, as published in the Annals of Thoracic Surgery, have increased the indication (from Class II to Class I) and broadened the scope for using an aortic homograft during aortic valve replacement surgery due to endocarditis. This means that when endocarditis has functionally destroyed the aortic valve annulus, an aortic homograft is the recommended course of treatment. Previously, the Guidelines indication for aortic homograft use was Class II, which meant only that it was an acceptable course of treatment.

Patients with peripheral vascular disease can experience reduced blood flow, usually in the arms and legs. This can result in poor circulation, pain, and sores that do not heal. Failure to achieve revascularization of an obstructed vessel may result in the loss of a limb or even death of the patient. When patients require peripheral bypass surgery, the surgeon's first choice generally is the patient's own tissue (autograft). However, in cases of advanced vascular disease, patients may not have suitable vascular tissue for transplantation, and the surgeon must consider using synthetic grafts or donated human vascular tissue. Synthetic vascular grafts are generally not optimal for below-the-knee surgeries because they have a tendency to obstruct over time. Human vascular tissues tend to remain open longer and, as such, are used in indications where synthetic grafts typically fail. In addition, synthetic grafts are not suitable for use in infected areas since they may harbor bacteria and are difficult to treat with antibiotics. Therefore, human vascular tissues have advantages for patients with previously infected graft sites. Human vascular and arterial tissues are used in a variety of other reconstruction procedures such as cardiac bypass surgery and as vascular access grafts for hemodialysis. However, for each procedure that may utilize vascular human tissue, there are alternative treatments including the repair, partial removal, or complete removal of the damaged tissue.

Tissue procured from deceased human donors can be used in a variety of medical procedures to treat both congenital and acquired conditions as discussed above. The transplant of human tissue that has not been preserved must be accomplished within extremely short time limits. Cryopreservation, or cooling and storing at extremely cold temperatures, expands the treatment options available by extending these timelines.

CryoLife currently markets its cardiac preservation services, including its CryoValve and CryoValve SG tissues for heart valve replacement surgeries and its CryoPatch and CryoPatch SG tissues for cardiac repair procedures. CryoLife currently markets its vascular preservation services, including its CryoVein<sup>®</sup> and CryoArtery<sup>®</sup> tissues for vascular reconstruction surgeries. CryoLife currently distributes PhotoFix for cardiac and vascular repair.

### *PhotoFix*

In 2014 CryoLife entered into an exclusive supply and distribution agreement with GBI to acquire the distribution rights to PhotoFix, a bovine pericardial patch stabilized using a dye-mediated photo-fixation process that requires no glutaraldehyde. PhotoFix, which was last commercially available in 2010, has received FDA 510(k) clearance and is indicated for use in intracardiac repair, including ventricular repair and atrial repair, great vessel repair and suture line buttressing, and pericardial closure.

In January 2015 the Company received its initial shipments and launched its distribution of PhotoFix in the U.S. Revenues from PhotoFix represented 1% of total Company revenues in 2015.

### *Cardiac and Vascular Preservation Services*

The Company's proprietary preservation process involves dissection, processing, preservation, and storage of tissues by the Company, until they are shipped to an implanting physician. The tissues currently preserved by the Company include aortic and pulmonary heart valves; cardiac patches in three primary anatomic configurations: pulmonary hemi-artery, pulmonary trunk, and pulmonary branch; and vascular tissues including, saphenous veins, aortoiliac arteries, and femoral veins and arteries. Each of these tissues maintains a structure which more closely resembles and simulates the performance of the patient's own tissue compared to non-human tissue alternatives. The Company's cardiac tissues have been used in a variety of valve replacement and cardiac reconstruction surgeries. The Company's vascular tissues have been used to treat a variety of vascular reconstructions, such as peripheral bypass, hemodialysis access, and aortic infections, which have saved the lives and limbs of patients. Management believes the human tissues it distributes offer specific advantages over mechanical, synthetic, and animal-derived alternatives. Depending on the alternative, the advantages of the Company's heart

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valves include more natural blood flow properties, the ability to use the valve with patients who have endocarditis, the elimination of a need for long-term drug therapy to prevent excessive blood clotting, and a reduced risk of catastrophic failure, thromboembolism (stroke), or calcification.

The Company's cardiac tissues include the CryoValve SGPV and the CryoPatch SG, both processed with the Company's proprietary SynerGraft decellularization technology. CryoLife uses the SynerGraft technology for a significant portion of its pulmonary valve and pulmonary cardiac patch tissue processing.

CryoLife distributes human cardiac and vascular tissues to implanting institutions throughout the U.S. CryoLife also distributes tissues in Canada and has limited distribution through a special access program in Germany. The Company's CryoValve SGPV and CryoPatch SG are distributed under 510(k) clearance from the FDA.

Revenues from cardiac tissue preservation services accounted for 19%, 20%, and 21% of total Company revenues in 2015, 2014, and 2013, respectively. Revenues from vascular preservation services accounted for 24%, 23%, and 25% of total Company revenues in 2015, 2014, and 2013, respectively.

Management believes that at least one domestic tissue bank, LifeNet Health, Inc. ( LifeNet ), offers preserved human heart valves and patches in competition with the Company. Alternatives to human heart valves processed by the Company include valve repair and valve replacement with xenograft valves or mechanical valves. The Company competes with xenograft or mechanical valves from companies including Medtronic, Inc., Edwards Life Sciences, Inc., LivaNova and St. Jude Medical, Inc. Alternatives to the Company's human cardiac patches include xenograft small intestine submucosa ( SIS ) and xenograft patches. The Company competes with xenograft and SIS products from companies including CorMatrix Cardiovascular, Inc., Edwards Life Sciences, Inc., Admedus, Inc., St. Jude Medical, Inc., and Synovis Surgical Innovations.

Management believes that the human heart valves preserved by the Company compare favorably with xenograft and mechanical valves, for certain indications and patient populations, and that the human cardiac patches preserved by the Company compare favorably with xenograft SIS and xenograft patches, due to the benefits of human tissue discussed above. In addition, human tissue is the preferred replacement alternative with respect to certain medical conditions, such as pediatric cardiac reconstruction, congenital cardiac defect repair, valve replacements for women in their child-bearing years, and valve replacements for patients with endocarditis. In addition, implantation of the SynerGraft treated cardiac tissue reduces the risk for induction of class I and class II alloantibodies, based on Panel Reactive Antibody ( PRA ) measured at up to one year, compared to standard processed cardiac tissues. The Company believes that this may provide a competitive advantage for CryoValve SGPV and CryoPatch SG for potential whole organ transplant recipients, as an increased PRA can decrease the number of possible donors for subsequent organ transplants and increase time on transplant waiting lists.

Management believes that at a small number of domestic tissue banks, including LifeNet, Restoreflow Allografts, and Vascular Transplant Services, offer vascular tissue in competition with the Company. There are also a number of providers of synthetic alternatives to veins preserved by the Company and those alternatives are available primarily in medium and large diameters. The Company's vascular tissues compete with products from Gore, Bard, Artegraft, Inc., and Maquet, Inc.

Management believes that it competes with other entities that preserve human tissue on the basis of the preference of surgeons, documented clinical data, technology, customer service, and quality assurance. Management believes the Company offers advantages in the areas of clinical data and customer service, particularly with respect to the capabilities of our field representatives, as compared to other human tissue processors.



## **Marketing and Distribution**

In the U.S. the Company markets its products and preservation services primarily to physicians, and distributes its products through its direct sales team to hospitals and other healthcare facilities. During 2015 the Company's cardiac specialists focused primarily on marketing the Company's products and services to cardiac surgeons, and cardiovascular field service representatives focused primarily on vascular surgeons. In January 2016 the Company reorganized its U.S. salesforce such that each domestic sales representative markets, with limited exception, the entire suite of CryoLife's product offerings. The Company also has a team of region managers, national accounts managers, and sales and marketing management. Through its field representatives, the Company conducts field training for surgeons regarding the surgical applications of its products and tissues.

CryoLife's physician relations and education staff, clinical research staff, and field representatives assist physicians by providing educational materials, seminars, and clinics on methods for using Company products and implanting tissue

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preserved by the Company. The Company sponsors programs where surgeons train other surgeons in best-demonstrated techniques. In addition, the Company hosts several workshops throughout the year including the Central Venous Pathology Summit, Aortic Root Bootcamp, Aortic Allograft Workshops, and TMR Workshops. These workshops aim to provide didactic and hands-on training to surgeons. The Company also produces educational videos for physicians and coordinates peer-to-peer training at various medical institutions. Management believes that these activities enhance the medical community's acceptance of the products and tissues offered by the Company and help to differentiate the Company from other medical device companies and tissue processors. To assist organ and tissue procurement organizations (OTPOs), the Company provides educational materials and training on procurement, dissection, packaging, and shipping techniques. The Company produces educational videos and coordinates laboratory sessions for OTPO personnel to improve their recovery techniques and increase the yield of usable tissue. The Company also maintains a staff 24 hours per day, 365 days per year for OTPO support.

The Company markets its products in the EMEA region through its European subsidiary, Europa, based in Guildford, England. Europa employs direct field service representatives in the U.K., Germany, Austria, Switzerland, Ireland, and France and manages relationships with other independent distributors in the EMEA region. Europa provides customer service, logistics, marketing, and clinical support to cardiac, vascular, thoracic, and general surgeons throughout the EMEA region.

The Company markets and distributes its products in other international markets through independent distributors in Canada, Asia Pacific, and the Americas. The Company's Singapore subsidiary, CryoLife Asia Pacific, provides sales and marketing support for the Asia Pacific region.

## **Suppliers, Sources, and Availability of Raw Materials and Tissues**

The Company obtains many of its raw materials and supplies from a small group of suppliers or a single-source supplier. CryoLife also distributes various products through distribution agreements with the manufacturers. Certain raw materials and components used in the Company's products and tissue processing have stringent specifications. Supply interruptions or supplier quality, financial, or operational issues could cause the Company to have to temporarily reduce, temporarily halt, or permanently halt manufacturing, processing, or distribution activities. Qualifying alternative suppliers could result in additional costs or lengthy delays, or may not be possible. Any of these adverse outcomes could have a material, adverse effect on the Company's revenues or profitability. Supplies of materials are discussed for each of the Company's main products and services below. See also Part I, Item 1A, Risk Factors.

The Company's BioGlue and BioFoam products have three main product components: bovine protein, a cross linker, and a molded plastic resin delivery device. The bovine protein and cross linker are obtained from a small number of qualified suppliers. The delivery devices are manufactured by a single supplier, using resin supplied by a single resin supplier. The Company maintains a significant inventory of finished delivery devices to help mitigate the effects of a potential supply interruption.

The Company purchases PerClot from SMI pursuant to a distribution agreement. The Company maintains an inventory of PerClot purchased from SMI to satisfy its distribution needs and places regular orders for additional product. CryoLife's business is subject to interruption if SMI were unable or became unwilling to supply PerClot to CryoLife.

The Company purchases laser consoles and handpieces for its CardioGenesis cardiac laser therapy product line each from a separate single-source contract manufacturer. Using a secondary supplier for the laser consoles may be difficult because of certain of this manufacturer's patent rights. In addition, these manufacturers obtain certain laser and

fiber-optic components and subassemblies from single sources. CryoLife's business is subject to interruption if either of these contract manufacturers or their suppliers became unable or unwilling to do business with CryoLife.

Several HeRO Graft components are purchased from single sources, including key components such as the ePTFE arterial graft and nitinol braid. As discussed in Recent Events above, CryoLife divested the HeRO Graft product line in February 2016. CryoLife will continue to manufacture product during a short transition period of up to six months after the divestiture, and Merit will provide the necessary components during this transition period.

The Company's preservation services business and its ability to supply needed tissues is dependent upon donation of tissues from human donors by donor families. Donated human tissue is procured from deceased human donors by OTPOs. The Company must rely on the OTPOs that it works with to educate the public on the need for donation, to foster a willingness to donate tissue, to follow CryoLife's donor screening and procurement procedures, and to send donated tissue to CryoLife. Since 1984 the Company has received tissue from over 136,000 donors. The Company has active relationships

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with approximately 50 OTPOs throughout the U.S. Management believes these relationships are critical in the preservation services industry and that the breadth of these existing relationships provides the Company with a significant advantage over potential new entrants to this market. The Company also uses various raw materials, including medicines and solutions in its processing. Some of these raw materials are manufactured by single suppliers or by a small group of suppliers. All of these factors subject CryoLife to risk of supply interruption.

## **Operations, Manufacturing, and Tissue Preservation**

The Company maintains a corporate headquarters and laboratory and an additional off-site warehouse both located in Kennesaw, Georgia. The Company manufactures BioGlue, BioFoam, and PerClot, and processes tissues at the Company's headquarters facility. The Company's corporate headquarters also includes a CardioGenesis cardiac laser therapy maintenance and evaluation laboratory space. The Company maintains a secondary facility consisting of manufacturing and office space in Atlanta, Georgia. The Company currently manufactures HeRO Grafts at the Atlanta, Georgia facility. The Company's European subsidiary, Europa, leases office space in Guildford, England, and shared warehousing space through its third-party shipper. See also Part I, Item 2, Properties.

In all of the Company's facilities, the Company is subject to regulatory standards for good manufacturing practices, including current Quality System Regulations, which are the FDA regulatory requirements for medical device manufacturers, and current Good Tissue Practices (cGTPs), which are the FDA regulatory requirements for the processing of human tissue. The Company also operates according to International Organization for Standardization (ISO) 13485 Quality System Requirements, an internationally recognized voluntary system of quality management for companies that design, develop, manufacture, distribute, and service medical devices. The Company maintains a Certification of Approval to the ISO 13485. Lloyd's Register Quality Assurance Limited (LRQA) issues this approval. LRQA is a Notified Body officially recognized by the EU to perform assessments of compliance with ISO 13485 and the Medical Device Directive. The Medical Device Directive is the governing document for the EEA that details requirements for safety and risk. LRQA also performs assessments of compliance with the Canadian Medical Devices Conformity Assessment System (CMDCAS).

The Company employs a comprehensive quality assurance program in all of its product manufacturing and tissue preservation activities. All materials, solutions, and components utilized in the Company's manufacturing and tissue processing are received and inspected by trained quality control personnel according to written specifications and standard operating procedures, and only items found to comply with Company standards are utilized in the Company's operations. Materials, components, sub-assemblies, and tissues are documented throughout manufacturing or processing to assure traceability.

The Company evaluates and inspects both its manufactured and distributed products to ensure conformity to product specifications. Processes are validated to produce products meeting the Company's specifications. Each process is documented along with all inspection results, including final finished product inspection and acceptance. Records are maintained as to the consignees of products to track product performance and to facilitate product removals or corrections, if necessary.

The Company maintains controls over its tissue processing to ensure conformity with Company procedures. OTPOs must follow the Company's policies related to tissue recovery practices, and are subject to periodic audits to confirm compliance. Samples are taken from donated tissue for microbiological testing, and tissue must be shown to be free of certain detectable microbial contaminants before being released for distribution. Tissue processing records and donor information is reviewed to identify characteristics which would disqualify the tissue for processing or implantation. Once tissue is released for distribution, it is moved from quarantine to an implantable status. Tissue is stored by the Company until it is shipped to a hospital, where the tissue is thawed and implanted immediately or held in a liquid

nitrogen freezer pending implantation.

**Government Regulation**

Medical devices and human tissues are subject to a number of regulations from various government bodies including in the U.S., federal, state, and local governments, as well as various regulatory bodies internationally. Government regulations are continually evolving, and requirements may change with or without notice. Changes in government regulations or changes in the enforcement of existing government regulations could have a material, adverse impact on the Company. See also Part I, Item 1A, Risk Factors.

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***U.S. Federal Regulation of Medical Devices***

The Federal Food, Drug, and Cosmetic Act ( FDCA ) provides that, unless exempted by regulation, medical devices may not be distributed in the U.S. unless they have been approved or cleared for marketing by the FDA. Medical devices may receive such approval or clearance through either a 510(k) process or an investigational device exemption ( IDE ) and PMA process.

Under a Section 510(k) process, a medical device manufacturer provides a premarket notification that it intends to begin marketing a product and shows that the product is substantially equivalent to another legally marketed predicate product. To be found substantially equivalent to a predicate device, the device must be for the same intended use and have either the same technological characteristics or different technological characteristics that do not raise new questions of safety or effectiveness. In some cases, the submission must include data from clinical studies in order to demonstrate substantial equivalency to a predicate device. Marketing may commence when the FDA issues a clearance letter finding such substantial equivalence.

FDA regulations require approval through the IDE/PMA process for all Class III medical devices and for medical devices not deemed substantially equivalent to a predicate device. An IDE authorizes distribution of devices that lack PMA or 510(k) clearance for clinical evaluation purposes. Devices subject to an IDE are subject to various restrictions imposed by the FDA, including restrictions on the number of patients to be treated and the number of institutions at which the device may be used. Patients must give informed consent to be treated with an investigational device and review by an Institutional Review Board is needed. The device must be labeled that it is for investigational use and may not be advertised or promoted. The price charged for the device may be limited. Unanticipated adverse events for devices used in an IDE must be reported to the FDA. After a product is subjected to clinical testing under an IDE, the Company may file a PMA application. PMA applications must be supported by valid scientific evidence to demonstrate the safety and effectiveness of the device for its intended use. A PMA application is typically a complex submission, usually including the results of human clinical studies, and preparing an application is a detailed and time-consuming process. Once a PMA application has been submitted, the FDA's review may be lengthy and may include requests for additional data, which may require the Company to undertake additional human clinical studies. Marketing of the device may begin when the FDA has approved the PMA.

FDCA requires all medical device manufacturers and distributors to register with the FDA annually and to provide the FDA with a list of those medical devices they distribute commercially. FDCA also requires manufacturers of medical devices to comply with labeling requirements and to manufacture devices in accordance with Quality System Regulations, which require that companies manufacture their products and maintain their documents in a prescribed manner with respect to good manufacturing practices, including: design, document production, process, labeling and packaging controls, process validation, and other quality control activities. The FDA's medical device reporting regulation requires that a device manufacturer provide information to the FDA on death or serious injuries alleged to have been associated with the use of its products, as well as product malfunctions that would likely cause or contribute to death or serious injury if the malfunction were to recur. The FDA further requires that certain medical devices that may not be sold in the U.S. follow certain procedures before they are exported. The FDA periodically inspects Company facilities to review Company compliance with these and other regulations and has authority to seize non-complying medical devices, enjoin and/or impose civil penalties on manufacturers and distributors marketing non-complying medical devices, criminally prosecute violators, and order recalls in certain instances.

The following Company products are, or would, upon approval, be classified as Class III medical devices: BioGlue, BioFoam, PerClot, ProCol, and CardioGenesis cardiac laser therapy. CryoPatch SG and HeRO Graft are classified as Class II medical devices. CryoLife obtained 510(k) clearance from the FDA to market the CryoValve SGPV; however, these tissues are not officially classified as Class II or III medical devices.

***U.S. Federal Regulation of Human Tissue***

The FDA regulates human tissues pursuant to Section 361 of the Public Health Services Act, which in turn provides the regulatory framework for regulation of human cellular and tissue products. The FDA regulations focus on donor screening and testing to prevent the introduction, transmission, and spread of HIV-1 and -2, Hepatitis B and C, and other communicable diseases and disease agents. The regulations set minimum requirements to prevent the transmission of communicable diseases from human tissue used for transplantation. The regulations define human tissue as any tissue derived from a human body which is (i) intended for administration to another human for the diagnosis, cure, mitigation, treatment, or prevention of any condition or disease and (ii) recovered, preserved, stored, or distributed by methods not intended to change tissue function or characteristics. The FDA definition excludes, among other things, tissue that currently is regulated as a human drug, biological product, or medical device, and it also excludes kidney, liver, heart, lung, pancreas, or any other vascularized

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human organ. The current regulations applicable to human tissues include requirements for donor suitability, processing standards, establishment registration, product listing, testing, and screening for risks of communicable diseases. The FDA periodically audits the Company's tissue preservation facilities for compliance with its requirements and has the authority to enjoin, force a recall, or require the destruction of tissues that do not meet its requirements.

### ***NOTA Regulation***

The Company's activities in preserving and transporting human hearts and certain other organs are also subject to federal regulation under the National Organ Transplant Act (NOTA), which makes it unlawful for any person to knowingly acquire, receive, or otherwise transfer any human organ for valuable consideration for use in human transplantation if the transfer affects interstate commerce. NOTA excludes from the definition of "valuable consideration" reasonable payments associated with the removal, transportation, implantation, processing, preservation, quality control, and storage of a human organ. The purpose of this statutory provision is to allow for compensation for legitimate services. The Company believes that to the extent its activities are subject to NOTA, it meets this statutory provision relating to the reasonableness of its charges. There can be no assurance, however, that restrictive interpretations of NOTA will not be adopted in the future that would call into question one or more aspects of the Company's methods of charging for its preservation services.

### ***State Licensing Requirements***

Some states have enacted statutes and regulations governing the preservation, transportation, and storage of human organs and tissues. The activities the Company engages in require it to be either licensed or registered as a clinical laboratory or tissue bank under California, Delaware, Florida, Georgia, Illinois, Maryland, New York, Oregon, and Pennsylvania law. The Company has such licenses or registrations, and the Company believes it is in compliance with applicable state laws and regulations relating to clinical laboratories and tissue banks that store, preserve, and distribute human tissue designed to be used for medical purposes in human beings. However, there can be no assurance that more restrictive state laws or regulations will not be adopted in the future that could materially, adversely affect the Company's operations. Certain employees of the Company have obtained other required state licenses. The regulatory bodies of the above states may perform inspections of the Company's facilities as required to ensure compliance with state laws and regulations.

### ***International Approval Requirements***

Sales of medical devices and shipments of human tissues outside the U.S. are subject to international regulatory requirements that vary widely from country to country. Approval of a product by comparable regulatory authorities of other countries must be obtained and compliance with applicable regulations for tissues must be met prior to commercial distribution of the products or human tissues in those countries. The time required to obtain these approvals may be longer or shorter than that required for FDA approval. Countries in which CryoLife distributes products and tissue may perform inspections of the Company facilities to ensure compliance with local country regulations.

The EEA recognizes a single medical device approval, called a CE Mark, which allows for distribution of an approved product throughout the EEA without additional general applications in each country. However, individual EEA members reserve the right to require additional labeling or information to address particular patient safety issues prior to allowing marketing. Third-parties called "Notified Bodies" award the CE Mark. These Notified Bodies are approved and subject to review by the "Competent Authorities" of their respective countries. The Company's Notified Body, LRQA, performs periodic on-site inspections, generally at least annually, to independently review the Company's



compliance with its systems and regulatory requirements. A number of countries outside of the EEA accept the CE Mark in lieu of marketing submissions as an addendum to that country's application process. The Company has been issued CE Marks for BioGlue, BioFoam, CardioGenesis cardiac laser therapy consoles and handpieces, and the HeRO Graft. Additionally, PerClot, which the Company distributes, has a CE Mark.

#### The EU Tissue and Cell

For example, during the 52-weeks ended December 31, 2010 our common stock fluctuated within a range of \$7.79-\$30.20.

The financial crisis affecting the banking system and financial markets and the uncertainty in global economic conditions, which began in late 2007 and continued throughout 2009 and into 2010, have resulted in a tightening in the credit markets, a low level of liquidity in many financial markets, and extreme volatility in the credit, equity and fixed income markets. As noted above, our stock price, like many others, has fluctuated significantly recently and if investors have concerns that our business, operating results and financial condition will be negatively impacted by a continuing worldwide economic downturn, our stock price could continue to fluctuate significantly in future periods.

In addition, we believe that fluctuations in our stock price during applicable periods can also be impacted by court rulings and/or other developments in our patent licensing and enforcement actions. Court rulings in patent enforcement actions are often difficult to understand, even when favorable or neutral to the value of our patents and our overall business, and we believe that investors in the market may overreact, causing fluctuations in our stock prices that may not accurately reflect the impact of court rulings on our business operations and assets.

In the past, companies that have experienced volatility in the market price of their stock have been the objects of securities class action litigation. If our common stock was the object of securities class action litigation, it could result in substantial costs and a diversion of management's attention and resources, which could materially harm our business and financial results.

***We do not anticipate declaring any cash dividends on our common stock.***

We have never declared or paid cash dividends on our common stock and do not plan to pay any cash dividends in the near future. Our current policy is to retain all funds and any earnings for use in the operation and expansion of our business. If we do not pay dividends, our stock may be less valuable to you because a return on your investment will only occur if our stock price appreciates.

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**CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS**

This prospectus supplement, the accompanying prospectus, any related free writing prospectuses that we may authorize to be provided to you and the documents incorporated by reference herein and therein include forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. Forward-looking statements are those that predict or describe future events or trends and that do not relate solely to historical matters. You can generally identify forward-looking statements as statements containing the words believe, expect, will, anticipate, intend, estimate, project, plan, assume or other similar expressions, or negative expressions, although not all forward-looking statements contain these identifying words. All statements contained or incorporated by reference in this prospectus supplement, the accompanying prospectus and any related free writing prospectuses regarding our future strategy, future operations, projected financial position, estimated future revenues, projected costs, future prospects, the future of our industries and results that might be obtained by pursuing management's current plans and objectives are forward-looking statements.

You should not place undue reliance on our forward-looking statements because the matters they describe are subject to known and unknown risks, uncertainties and other unpredictable factors, many of which are beyond our control. Our forward-looking statements are based on the information currently available to us and speak only as of the date on the cover of this prospectus supplement, the date of the accompanying prospectus, the date of any related free writing prospectus or, in the case of forward-looking statements incorporated by reference, as of the date of the filing that includes the statement. New risks and uncertainties arise from time to time, and it is impossible for us to predict these matters or how they may affect us. Over time, our actual results, performance or achievements will likely differ from the anticipated results, performance or achievements that are expressed or implied by our forward-looking statements, and such difference might be significant and materially adverse to our security holders. We do not undertake and specifically decline any obligation to update any forward-looking statements or to publicly announce the results of any revisions to any statements to reflect new information or future events or developments.

We have identified some of the important factors that could cause future events to differ from our current expectations and they are described in this prospectus supplement under the caption Risk Factors as well as in our most recent Annual Report on Form 10-K, including, without limitation, under the captions Risk Factors and Management's Discussion and Analysis of Financial Condition and Results of Operations, and in other documents that we may file with the Commission, all of which you should review carefully. Please consider our forward-looking statements in light of those risks as you read this prospectus supplement, the accompanying prospectus and any related free writing prospectuses.

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**USE OF PROCEEDS**

We estimate that our net proceeds from this offering, after underwriting discounts and estimated offering expenses, will be approximately \$152.3 million (approximately \$175.2 million if the underwriter exercises in full its option to purchase additional shares).

We intend to use the net proceeds to us from this offering to fund our operations and for other general corporate purposes, including future acquisitions of patents and patent royalties and other patent licensing vehicles and companies with patent assets. However, we do not have agreements or commitments for any specific acquisitions at this time.

The amount and timing of our expenditures will depend on several factors, including the amount of cash used by our operations. Pending their uses, we plan to invest the net proceeds of this offering in short- and intermediate-term, interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government.

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**Table of Contents****PRICE RANGE OF COMMON STOCK AND DIVIDEND POLICY****Price Range of Common Stock**

Our common stock trades on The Nasdaq Global Select Market under the symbol ACTG. The following table sets forth on a per share basis the range of high and low prices for our common stock for the periods indicated as reported on The Nasdaq Global Select Market.

	<b>High</b>	<b>Low</b>
<b>2009</b>		
First Quarter	\$ 4.50	\$ 2.14
Second Quarter	\$ 7.90	\$ 3.82
Third Quarter	\$ 9.59	\$ 6.77
Fourth Quarter	\$ 9.64	\$ 6.81
<b>2010</b>		
First Quarter	\$ 11.34	\$ 7.79
Second Quarter	\$ 16.32	\$ 10.30
Third Quarter	\$ 17.75	\$ 12.87
Fourth Quarter	\$ 30.20	\$ 17.80
<b>2011</b>		
First Quarter (through March 24, 2011)	\$ 34.93	\$ 33.48

The last reported sale price of our common stock on March 23, 2011 on The Nasdaq Global Select Market is included on the cover page of this prospectus supplement. As of March 24, 2011, there were 110 holders of record of our common stock.

**Dividend Policy**

We do not currently pay, and have not paid in the past, any dividends on our common stock, and we currently intend to retain any future earnings for use in our business. Any future determination as to the declaration of dividends on our common stock will be made at the discretion of our board of directors and will depend on our earnings, operating and financial condition, capital requirements and other factors deemed relevant by our board of directors, including the applicable requirements of the Delaware General Corporation Law, which provides that dividends are payable only out of surplus or current net profits. In addition, the payment of dividends on our common stock may be restricted by the provisions of credit agreements or other financing documents that we may enter into or the terms of securities that we may issue from time to time.

**Table of Contents****CAPITALIZATION**

The following table sets forth (i) our actual cash and cash equivalents and capitalization as of December 31, 2010 and (ii) our as adjusted capitalization as of December 31, 2010 giving effect to the offering. You should read this table in conjunction with other sections of this prospectus supplement, the accompanying prospectus and the documents incorporated by reference, including our consolidated financial statements and the notes thereto.

	<b>Actual</b>	<b>As Adjusted</b>
	<i>(Dollars in thousands)</i>	
<b>Cash and Cash Equivalents</b>	\$ 102,515	254,862
<b>Stockholders Equity</b>		
Preferred Stock, \$0.001 par value: 10,000,000 shares authorized, none issued		
Common stock, \$0.001 par value: 100,000,000 shares authorized; 36,029,068 shares issued and outstanding, actual; 41,029,068 shares issued and outstanding, as adjusted <sup>(1)</sup>	36	41
Additional paid-in capital	197,026	349,368
Accumulated deficit	(86,191)	(86,191)
Noncontrolling interests in operating subsidiaries	2,982	2,982
<b>Total Stockholders Equity</b>	113,853	266,200
<b>Total Capitalization</b>	\$ 113,853	266,200

<sup>(1)</sup> The number of shares of common stock to be outstanding immediately after this offering is based on 36,029,068 shares outstanding on December 31, 2010, and excludes, as of that date:

521,000 shares of common stock issuable upon the exercise of outstanding stock options at a weighted average exercise price of \$5.41 per share; and

1,176,000 additional shares of common stock reserved for future issuance under our 2002 Acacia Technologies Stock Incentive Plan, as well as any automatic increases in the number of shares of our common stock reserved for future issuance under this equity compensation plan.

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**MATERIAL UNITED STATES FEDERAL INCOME TAX AND ESTATE CONSEQUENCES  
TO NON-U.S. HOLDERS OF COMMON STOCK**

This section summarizes the material U.S. federal income and estate tax consequences of the acquisition, ownership, and disposition of our common stock by a non-U.S. holder that acquires our common stock pursuant to this offering. For purposes of this summary, the term non-U.S. holder means a beneficial owner of our common stock that is, for U.S. federal income tax purposes:

a nonresident alien individual who is not and will not become generally subject to U.S. federal income tax by virtue of substantial physical presence in the United States;

a corporation (or other entity treated as a corporation) organized or created under non-U.S. law;

an estate that is not taxable in the United States on its worldwide income; or

a trust, if (1) no court within the United States is able to exercise primary supervision over its administration, (2) no U.S. person nor combination of U.S. persons has the authority to control all of its substantial decisions or (3) the trust does not make a valid election under applicable Treasury regulations to be treated as a United States person.

This section assumes that non-U.S. holders will hold our common stock as a capital asset within the meaning of Section 1221 of the Code (generally, property held for investment purposes). This section does not consider all of the tax considerations that may be relevant to a particular non-U.S. holder in light of its individual circumstances and does not address the treatment of a non-U.S. holder under the laws of any state, local, or foreign taxing jurisdiction. This section is based on the tax laws of the United States, including the Code, existing, temporary, and proposed Treasury regulations promulgated thereunder, and administrative and judicial interpretations thereof, all as currently in effect. These laws and interpretations are subject to change, possibly on a retroactive basis.

This section does not discuss the U.S. federal income and estate tax consequences that may be relevant to a non-U.S. partnership or other pass-through entity or to the partners or members in such an entity. If you are a non-U.S. partnership or other pass-through entity or a partner or member in such an entity, you should consult your own tax advisor regarding the U.S. federal income and estate tax consequences of acquiring, holding, and disposing of the common stock.

**This summary is for general purposes only. This summary is not intended to be, and should not be construed to be, legal or tax advice to any particular beneficial owner of our common stock. You should consult your tax advisor regarding the U.S. federal income and estate tax consequences of acquiring, holding, and disposing of our common stock in your particular circumstances, as well as any tax consequences that may arise under the laws of any state, local, or foreign taxing jurisdiction, and the effect of any change in applicable tax law.**

**Dividends**

We do not currently pay any cash dividends on our common stock, and we currently have no plans to do so in the foreseeable future. If we were to pay cash dividends in the future on our common stock, they would be subject to U.S. federal income tax in the manner described below.

A distribution on our common stock will constitute a dividend for U.S. federal income tax purposes to the extent of our current or accumulated earnings and profits as determined for U.S. federal income tax purposes. To the extent the distribution exceeds our current and accumulated earnings and profits, the distribution will constitute a return of capital and first reduce the non-U.S. holder's basis in its common stock, but not below zero, and then will be treated as gain from the sale of stock. Except as described below, if you are a non-U.S. holder of our common stock, you will be subject to withholding of U.S. federal income tax at a rate of 30% of the gross amount of the dividends received on the common stock, or at a lower rate if you are eligible for and establish your entitlement to, benefits under an income tax treaty that provides for a lower rate.

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We generally will withhold at the lower treaty rate on dividend payments to you if you (or your bank or other financial institution) have furnished to us, or our payment agent, prior to the payment of the dividend:

a valid Internal Revenue Service Form W-8BEN or an acceptable substitute form upon which you certify, under penalties of perjury, your status as a non-U.S. person and your entitlement to the lower treaty rate with respect to such payments; or

in the case of payments made outside the United States to an offshore account (generally, an account maintained by you at an office or branch of a bank or other financial institution at any location outside the United States), other documentary evidence establishing your entitlement to the lower treaty rate in accordance with applicable Treasury regulations.

If you are eligible for a reduced rate of U.S. withholding tax under an income tax treaty, you may obtain a refund of any amounts withheld in excess of that rate by filing a timely claim for refund with the U.S. Internal Revenue Service.

If dividends paid to you are effectively connected with your conduct of a trade or business within the United States and, if required by an applicable income tax treaty, are attributable to a permanent establishment that you maintain in the United States, you generally will not be subject to U.S. withholding tax on the dividends, provided that you have furnished to us, prior to the payment of the dividend, a valid Internal Revenue Service Form W-8ECI or an acceptable substitute form upon which you certify, under penalties of perjury, that:

you are a non-U.S. person; and

the dividends are effectively connected with your conduct of a trade or business within the United States and are includible in your gross income.

Instead, such effectively connected dividends will be subject to U.S. federal income tax on a net income basis at the applicable graduated individual and corporate tax rates. If you are a corporate non-U.S. holder, effectively connected dividends that you receive also may be subject to an additional branch profits tax at a 30% rate, or at a lower rate if you are eligible for, and establish your entitlement to, benefits under an income tax treaty that provides for a lower rate.

The Treasury regulations generally provide special rules for dividend payments made to foreign intermediaries, U.S. or foreign wholly-owned entities that are treated as transparent for U.S. federal income tax purposes, and entities that are disregarded for U.S. federal income tax purposes, under the laws of the applicable income tax treaty jurisdiction, or both. Specifically, the Treasury regulations provide special rules for determining whether, for income tax treaty applicability purposes, dividends that we pay to a non-U.S. holder that is an entity should be treated as paid to holders of interests in the entity. You should consult your tax advisor regarding the applicability of the relevant Treasury regulations to you.

## **Gain on Disposition of Common Stock**

If you are a non-U.S. holder, you generally will not be subject to U.S. federal income tax on gain that you recognize on a sale or other disposition of our common stock unless:

the gain is effectively connected with your conduct of a trade or business within the United States and, if required by an applicable income tax treaty, is attributable to a permanent establishment that you maintain in the United States, in which case you will be subject to U.S. federal income tax on the gain on a net income basis at the applicable graduated rates;



you are an individual who is present in the United States for 183 or more days in the taxable year of the sale or other disposition and certain other conditions are met, in which case you will be subject to a 30% tax (unless an applicable income tax treaty provides for an

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exemption or a lower rate) on the gain derived from the sale or other disposition, which gain may be offset by the amount of certain U.S. source capital losses;

you are a former citizen or resident of the United States, in which case you may be subject to tax pursuant to the provisions of the U.S. federal income tax laws applicable to United States expatriates; or

we are or have been a United States real property holding corporation for U.S. federal income tax purposes and you held, directly or indirectly, more than 5% of our common stock at any time during the shorter of the five-year period ending on the date of disposition or your holding period of our common stock (or you held 5% or less of our common stock and our stock has ceased to be regularly traded on an established securities market within the meaning of Section 897(c)(3) of the Code).

We believe that we have not been, are not and do not anticipate becoming in the foreseeable future, a United States real property holding corporation for U.S. federal income tax purposes.

If you are a corporate non-U.S. holder, effectively connected gains that you recognize may also, under certain circumstances, be subject to an additional branch profits tax at a 30% rate, or at a lower rate if you are eligible for, and establish your entitlement to, benefits under an income tax treaty that provides for a lower rate.

## **Recent Legislation**

For taxable years beginning after December 31, 2012, a U.S. withholding tax at a 30% rate will be imposed on dividends and proceeds of a sale in respect of our common stock received by certain non-U.S. entities if certain disclosure and due diligence requirements related to U.S. accounts or ownership are not satisfied.

If payment of withholding taxes is required, non-U.S. holders that are otherwise eligible for an exemption from, or reduction of, U.S. withholding taxes with respect of such dividends and proceeds will be required to seek a refund from the IRS to obtain the benefit or such exemption or reduction. Non-U.S. holders should consult their tax advisors regarding the possible implications of this legislation on their ownership of our common stock.

## **Backup Withholding and Information Reporting**

Generally, we must report annually to the U.S. Internal Revenue Service and to each non-U.S. holder of our stock the amount of dividends that we paid to that holder and the amount of any tax withheld with respect to those dividends, if any. This information also may be made available to the tax authorities of a country in which you reside pursuant to the provisions of an applicable income tax treaty or information exchange agreement.

Under some circumstances, Treasury regulations require backup withholding (currently, at the rate of 28%) and additional information reporting on reportable payments on common stock. If you are a non-U.S. holder, you generally will be exempt from these backup withholding and additional information reporting requirements on dividends that we pay on our common stock and the payment of the proceeds of a sale or other disposition of our common stock paid by or through a U.S. office of any broker, if:

you provide a valid Internal Revenue Service Form W-8BEN or an acceptable substitute form upon which you certify, under penalties of perjury, that you are a non-U.S. person; or

you otherwise establish an exemption from backup withholding and information reporting requirements.



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The payment of the proceeds of a sale or other disposition of our common stock will be subject to information reporting, but generally not backup withholding, if the proceeds are paid through a foreign office of a broker that is:

a U.S. person;

a controlled foreign corporation for U.S. tax purposes;

a foreign person 50% or more of whose gross income is effectively connected with the conduct of a U.S. trade or business for a specified three-year period; or

a foreign partnership if, at any time during its tax year (i) one or more of its partners are U.S. persons, as defined in Treasury regulations, who in the aggregate hold more than 50% of the income or capital interests in the partnership, or (ii) the partnership is engaged in the conduct of a U.S. trade or business.

However, the sale or other disposition of our common stock will not be subject to information reporting if the documentation requirements described above are met and the broker does not have actual knowledge or reason to know that you are a U.S. person, or you otherwise establish an exemption from information reporting.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be refunded or credited against your U.S. federal income tax liability if the required information is timely furnished to the IRS.

**Federal Estate Tax**

Shares of our common stock that are owned (or treated as owned) by an individual who, at the time of his or her death, is not a citizen or resident of the United States will be included in the individual's gross estate for U.S. federal estate tax purposes, unless an applicable estate tax or other treaty provides otherwise and, therefore, may be subject to U.S. federal estate tax. The test for whether an individual is a resident of the United States for U.S. federal estate tax purposes differs from the test used for U.S. federal income tax purposes. Some individuals, therefore may be non-U.S. holders for U.S. federal income tax purposes, but not for U.S. federal estate tax purposes, or vice versa.

**Table of Contents****UNDERWRITING**

Under the terms of an underwriting agreement, which we filed as an exhibit to the registration statement of which the accompanying prospectus forms a part, Barclays Capital Inc., as the underwriter in this offering, has agreed to purchase from us, 5,000,000 shares of common stock.

The underwriting agreement provides that the underwriter's obligation to purchase shares of common stock depends on the satisfaction of the conditions contained in the underwriting agreement including:

- the obligation to purchase all of the shares of common stock offered hereby (other than those shares of common stock covered by the underwriter's option to purchase additional shares as described below), if any of the shares are purchased;
- the representations and warranties made by us to the underwriter are true;
- there is no material change in our business or in the financial markets; and
- we deliver customary closing documents to the underwriter.

**Commissions and Expenses**

The following table summarizes the underwriting discounts that we will pay to the underwriter. These amounts are shown assuming both no exercise and full exercise of the underwriter's option to purchase additional shares from us. The underwriting fee is the difference between the initial price to the public and the amount the underwriter pays to us for the shares we sell pursuant to the underwriting agreement.

	<b>No Exercise</b>	<b>Full Exercise</b>
Per share	\$ 0.97	\$ 0.97
Total	\$ 4,850,000	\$ 5,577,500

The underwriter has advised us that it proposes to offer the shares of common stock directly to the public at the public offering price on the cover of this prospectus supplement and to selected dealers at such offering price less a selling concession not in excess of \$0.50 per share. After the offering, the underwriter may change the offering price and other selling terms. Sales of shares made outside of the United States may be made by affiliates of the underwriter.

The expenses of the offering that are payable by us are estimated to be \$303,000 (excluding underwriting discounts).

**Option to Purchase Additional Shares**

We have granted the underwriter an option exercisable for 30 days after the date of the underwriting agreement, to purchase, from time to time, in whole or in part, up to an aggregate of 750,000 shares at the public offering price less underwriting discounts. To the extent that this option is exercised, the underwriter will be obligated, subject to certain conditions, to purchase these additional shares.

**Lock-Up Agreements**

We and all of our directors and executive officers have agreed that, subject to certain exceptions, without the prior written consent of Barclays Capital Inc., we and they will not directly or indirectly (1) offer for sale, sell, pledge, or otherwise dispose of (or enter into any transaction or device that is designed to, or could be expected to, result in the disposition by any person at any time in the future of) any shares of common stock (including, without limitation, shares of common stock that may be deemed to be beneficially owned by us or them in accordance with the rules and regulations of the Securities and Exchange Commission and shares of common stock that may be issued upon exercise of any options or warrants) or securities convertible into or exercisable or exchangeable for

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common stock, (2) enter into any swap or other derivatives transaction that transfers to another, in whole or in part, any of the economic consequences of ownership of the common stock, (3) make any demand for or exercise any right or file or cause to be filed a registration statement, including any amendments thereto, with respect to the registration of any shares of common stock or securities convertible, exercisable or exchangeable into common stock or any of our other securities, or (4) publicly disclose the intention to do any of the foregoing for a period of 90 days after the date of this prospectus supplement.

The 90-day restricted period described in the preceding paragraph will be extended if:

during the last 17 days of the 90-day restricted period we issue an earnings release or material news or a material event relating to us occurs; or

prior to the expiration of the 90-day restricted period, we announce that we will release earnings results during the 16-day period beginning on the last day of the 90-day period;

in which case the restrictions described in the preceding paragraph will continue to apply until the expiration of the 18-day period beginning on the issuance of the earnings release or the announcement of the material news or occurrence of material event, unless such extension is waived in writing by Barclays Capital Inc. Among other limited exceptions, the lock-up agreements entered into in connection with this offering permit our directors and executive officers to (i) sell shares pursuant to their pre-existing Rule 10b5-1 trading plans and (ii) establish new Rule 10b5-1 trading plans for the sale of shares in connection with the vesting of restricted stock awards and sell shares under such new plans after July 20, 2011. As of March 24, 2011, there were approximately 143,000 shares subject to the pre-existing Rule 10b5-1 trading plans of our directors and executive officers.

Barclays Capital Inc., in its sole discretion, may release the common stock and other securities subject to the lock-up agreements described above in whole or in part at any time with or without notice. When determining whether or not to release common stock and other securities from lock-up agreements, Barclays Capital Inc. will consider, among other factors, the holder's reasons for requesting the release, the number of shares of common stock and other securities for which the release is being requested and market conditions at the time.

## **Indemnification**

We have agreed to indemnify the underwriter against certain liabilities, including liabilities under the Securities Act, and to contribute to payments that the underwriter may be required to make for these liabilities.

## **Stabilization and Short Position**

The underwriter may engage in stabilizing transactions, covering transactions or purchases for the purpose of pegging, fixing or maintaining the price of the common stock, in accordance with Regulation M under the Exchange Act:

Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum.

Covering transactions involve purchases of the common stock in the open market after the distribution has been completed in order to cover short positions.

These stabilizing transactions and covering transactions may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of the common stock. As a result, the price of the common stock may be higher than the price that might otherwise exist in the open market. These

transactions may be effected on The Nasdaq Global Select Market or otherwise and, if commenced, may be discontinued at any time.

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Neither we nor the underwriter make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of the common stock. In addition, neither we nor the underwriter make any representation that the underwriter will engage in these stabilizing transactions or that any transaction, once commenced, will not be discontinued without notice.

## **Passive Market Making**

In connection with the offering, the underwriter and selling group members may engage in passive market making transactions in the common stock on the Nasdaq Global Select Market in accordance with Rule 103 of Regulation M under the Exchange Act during the period before the commencement of offers or sales of common stock and extending through the completion of distribution. A passive market maker must display its bids at a price not in excess of the highest independent bid of the security. However, if all independent bids are lowered below the passive market maker's bid that bid must be lowered when specified purchase limits are exceeded.

## **Electronic Distribution**

A prospectus supplement and the accompanying prospectus in electronic format may be made available on the Internet sites or through other online services maintained by the underwriter or by its affiliates. In those cases, prospective investors may view offering terms online and, depending upon the underwriter or particular selling group member, prospective investors may be allowed to place orders online. The underwriter may agree with us to allocate a specific number of shares for sale to online brokerage account holders. Any such allocation for online distributions will be made by the underwriter on the same basis as other allocations.

Other than the prospectus supplement and the accompanying prospectus in electronic format, the information on the underwriter's or a selling group member's web site and any information contained in any other web site maintained by the underwriter or a selling group member is not part of the prospectus supplement and the accompanying prospectus or the registration statement of which this prospectus supplement and the accompanying prospectus form a part, has not been approved and/or endorsed by us or the underwriter or any selling group member in its capacity as underwriter or selling group member and should not be relied upon by investors.

## **Stamp Taxes**

If you purchase shares of common stock offered in this prospectus supplement and the accompanying prospectus, you may be required to pay stamp taxes and other charges under the laws and practices of the country of purchase, in addition to the offering price listed on the cover page of this prospectus supplement and the accompanying prospectus.

## **Relationships**

Certain of the underwriter and its related entities have engaged, and may in the future engage, in commercial and investment banking transactions with us in the ordinary course of their business. The underwriter has received, and expects to receive, customary compensation and expense reimbursement for these commercial and investment banking transactions.

## **Selling Restrictions**

### ***European Economic Area***

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive, each of which we refer to herein as a Relevant Member State, an offer to the public of any shares of our common

stock may not be made in that Relevant Member State, except that an offer to the public in that Relevant Member State of any shares of our common stock may be

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made at any time under the following exemptions under the Prospectus Directive, if they have been implemented in that Relevant Member State:

- (a) to any legal entity which is a qualified investor as defined in the Prospectus Directive;
- (b) to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of Barclays Capital Inc. for any such offer; or
- (c) in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of shares of our common stock shall result in a requirement for the publication by us or the underwriter of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an offer to the public in relation to any shares of our common stock in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares of our common stock to be offered so as to enable an investor to decide to purchase any shares of our common stock, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State, the expression Prospectus Directive means Directive 2003/71/EC (and amendments thereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State), and includes any relevant implementing measure in the Relevant Member State, and the expression 2010 PD Amending Directive means Directive 2010/73/EU.

***United Kingdom***

The underwriter has represented and agreed that:

- (a) it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the FSMA) received by it in connection with the issue or sale of the shares of our common stock in circumstances in which Section 21(1) of the FSMA does not apply to us; and
- (b) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the shares of our common stock in, from or otherwise involving the United Kingdom.

***Australia***

No prospectus supplement or other disclosure document (as defined in the Corporations Act 2001 (Cth) of Australia, or the Corporations Act) in relation to the common stock has been or will be lodged with the Australian Securities & Investments Commission, or ASIC. This document has not been lodged with ASIC and is only directed to certain categories of exempt persons. Accordingly, if you receive this document in Australia:

- (a) you confirm and warrant that you are either:
  - (i) a sophisticated investor under section 708(8)(a) or (b) of the Corporations Act;
  - (ii) a sophisticated investor under section 708(8)(c) or (d) of the Corporations Act and that you have provided an accountant's certificate to us which complies with the requirements of section 708(8)(c)(i) or (ii) of the Corporations Act and related regulations before the offer has been made;



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(iii) a person associated with the company under section 708(12) of the Corporations Act; or

(iv) a professional investor within the meaning of section 708(11)(a) or (b) of the Corporations Act,

and to the extent that you are unable to confirm or warrant that you are an exempt sophisticated investor, associated person or professional investor under the Corporations Act any offer made to you under this document is void and incapable of acceptance; and

(b) you warrant and agree that you will not offer any of the common stock for resale in Australia within 12 months of those common stock being issued unless any such resale offer is exempt from the requirement to issue a disclosure document under section 708 of the Corporations Act.

***Hong Kong***

The common stock may not be offered or sold in Hong Kong, by means of any document, other than (a) to professional investors as defined in the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong) and any rules made under that Ordinance or (b) in other circumstances which do not result in the document being a prospectus as defined in the Companies Ordinance (Cap. 32, Laws of Hong Kong) or which do not constitute an offer to the public within the meaning of that Ordinance. No advertisement, invitation or document relating to the common stock may be issued or may be in the possession of any person for the purpose of the issue, whether in Hong Kong or elsewhere, which is directed at, or the contents of which are likely to be read by, the public in Hong Kong (except if permitted to do so under the laws of Hong Kong) other than with respect to the common stock which are intended to be disposed of only to persons outside Hong Kong or only to professional investors as defined in the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong) or any rules made under that Ordinance.

***India***

This prospectus supplement has not been and will not be registered as a prospectus with the Registrar of Companies in India or with the Securities and Exchange Board of India. This prospectus supplement or any other material relating to these securities is for information purposes only and may not be circulated or distributed, directly or indirectly, to the public or any members of the public in India and in any event to not more than 50 persons in India. Further, persons into whose possession this prospectus supplement comes are required to inform themselves about and to observe any such restrictions. Each prospective investor is advised to consult its advisors about the particular consequences to it of an investment in these securities. Each prospective investor is also advised that any investment in these securities by it is subject to the regulations prescribed by the Reserve Bank of India and the Foreign Exchange Management Act and any regulations framed thereunder.

***Japan***

No securities registration statement, or SRS, has been filed under Article 4, Paragraph 1 of the Financial Instruments and Exchange Law of Japan (Law No. 25 of 1948, as amended), or FIEL, in relation to the common stock. The common stock are being offered in a private placement to qualified institutional investors (tekikaku-kan-toshika) under Article 10 of the Cabinet Office Ordinance concerning Definitions provided in Article 2 of the FIEL (the Ministry of Finance Ordinance No. 14, as amended), or QIIs, under Article 2, Paragraph 3, Item 2 i of the FIEL. Any QII acquiring the common stock in this offer may not transfer or resell those shares except to other QIIs.

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***Korea***

The common stock may not be offered, sold and delivered directly or indirectly, or offered or sold to any person for reoffering or resale, directly or indirectly, in Korea or to any resident of Korea except pursuant to the applicable laws and regulations of Korea, including the Korea Securities and Exchange Act and the Foreign Exchange Transaction Law and the decrees and regulations thereunder. The common stock have not been registered with the Financial Services Commission of Korea for public offering in Korea. Furthermore, the common stock may not be resold to Korean residents unless the purchaser of the common stock complies with all applicable regulatory requirements (including but not limited to government approval requirements under the Foreign Exchange Transaction Law and its subordinate decrees and regulations) in connection with the purchase of the common stock.

***Singapore***

This prospectus supplement has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus supplement and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the common stock may not be circulated or distributed, nor may the common stock be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Future Act, Chapter 289 of Singapore, or the SFA, (ii) to a relevant person as defined in Section 275(2) of the SFA, or any person pursuant to Section 275 (1A), and in accordance with the conditions, specified in Section 275 of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the shares of common stock are subscribed and purchased under Section 275 of the SFA by a relevant person which is:

(a) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or

(b) a trust (where the trustee is not an accredited investor (as defined in Section 4A of the SFA)) whose sole whole purpose is to hold investments and each beneficiary is an accredited investor,

shares, debentures and units of shares and debentures of that corporation or the beneficiaries rights and interest (howsoever described) in that trust shall not be transferable within six months after that corporation or that trust has acquired the common stock under Section 275 of the SFA except:

(i) to an institutional investor under Section 274 of the SFA or to a relevant person (as defined in Section 275(2) of the SFA) and in accordance with the conditions, specified in Section 275 of the SFA;

(ii) (in the case of a corporation) where the transfer arises from an offer referred to in Section 275(1A) of the SFA, or (in the case of a trust) where the transfer arises from an offer that is made on terms that such rights or interests are acquired at a consideration of not less than S\$200,000 (or its equivalent in a foreign currency) for each transaction, whether such amount is to be paid for in cash or by exchange of securities or other assets;

(iii) where no consideration is or will be given for the transfer; or

(iv) where the transfer is by operation of law.

By accepting this prospectus supplement the recipient hereof represents and warrants that he is entitled to receive it in accordance with the restrictions set forth above and agrees to be bound by limitations contained herein. Any failure to comply with these limitations may constitute a violation of law.

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**EXPERTS**

The consolidated financial statements of Acacia Research Corporation and management's assessment of the effectiveness of internal control over financial reporting (which is included in Management's Report on Internal Control over Financial Reporting) incorporated in this prospectus supplement by reference to the Annual Report on Form 10-K for the year ended December 31, 2010 have been so incorporated in reliance on the reports of Grant Thornton LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

**LEGAL MATTERS**

Stradling Yocca Carlson & Rauth, our special counsel, will issue an opinion about the validity of the securities offered hereby. The underwriter will be advised about issues relating to this offering by its legal counsel, Davis Polk & Wardwell LLP, Menlo Park, California.

**INCORPORATION OF CERTAIN INFORMATION BY REFERENCE**

The Commission allows us to incorporate by reference the information we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this prospectus supplement. Information in this prospectus supplement supersedes information incorporated by reference that we filed with the Commission prior to the date of this prospectus supplement, while information that we file later with the Commission will automatically update and supersede the information in this prospectus supplement. We incorporate by reference into this prospectus supplement the documents listed below, and any future filings we make with the Commission under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act prior to the termination of the offering of common stock covered by this prospectus, except for information furnished under any item of Form 8-K, which is neither deemed filed nor incorporated by reference herein:

Our Annual Report on Form 10-K for the fiscal year ended December 31, 2010, filed with the Commission on February 28, 2011, as amended March 24, 2011;

Our Current Reports on Form 8-K, filed with the Commission on January 3, 2011, January 4, 2011, March 3, 2011 and March 4, 2011; and

Our Registration Statement on Form 8-A as filed with the Commission on December 19, 2002, as amended by Form 8-A/A as filed with the Commission on August 14, 2008, describing our common stock, and any amendment or report filed with the Commission for the purpose of updating the description.

You may request a copy of these filings (other than an exhibit to a filing unless that exhibit is specifically incorporated by reference into that filing) at no cost, by writing to us at the following address: Acacia Research Corporation, 500 Newport Center Drive, 7th Floor, Newport Beach, California 92660, Attention: Investor Relations, or by telephoning us at the following telephone number: (949) 480-8300.



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PROSPECTUS

**Acacia Research Corporation**

Common Stock

We may offer and sell, from time to time, common stock at prices and on terms that will be determined at the time of any such offering. The common stock offered pursuant to this prospectus may be sold at prevailing market prices or at prices different than prevailing market prices. We may offer and sell common stock to or through one or more underwriters, dealers and agents, or directly to purchasers, on a delayed or continuous basis. The prospectus supplement for each offering will provide the specific terms of the plan of distribution for that offering.

Each time our common stock is offered under this prospectus, we will provide a prospectus supplement containing more specific information about the particular offering. The prospectus supplements may also add, update or change information contained in this prospectus. You should carefully read this prospectus and any accompanying prospectus supplement, together with the information we incorporate by reference, before you invest in our common stock. **This prospectus may not be used to sell our common stock unless accompanied by a prospectus supplement or free writing prospectus.**

Our common stock is listed on The Nasdaq Global Select Market under the ticker symbol ACTG.

*Investing in our securities involves a high degree of risk. See Risk Factors on page 3 herein and in our most recent Annual Report on Form 10-K, which is incorporated by reference herein, updated and supplemented by our periodic reports and other information filed by us with the Securities and Exchange Commission and incorporated by reference herein. The prospectus supplement applicable to the securities we offer may contain a discussion of additional risks applicable to an investment in us and the particular type of securities we are offering under that prospectus supplement.*

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is March 24, 2011.

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**ABOUT THIS PROSPECTUS**

This prospectus is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or the Commission, using a shelf registration process. Under this shelf registration process, we may, from time to time, offer and/or sell the securities referenced in this prospectus in one or more offerings or resales. Each time securities are offered, we will provide a prospectus supplement and attach it to this prospectus. We may also provide you a free writing prospectus at the time our securities are offered. The prospectus supplement and/or free writing prospectus will contain more specific information about the offering. The prospectus supplement and free writing prospectus may also add, update or change information contained in this prospectus. Any statement that we make in this prospectus will be modified or superseded by any inconsistent statement made by us in a prospectus supplement or free writing prospectus. You should read both this prospectus and any accompanying prospectus supplement together with the additional information described under the heading **Incorporation of Certain Information by Reference**.

We have filed or incorporated by reference exhibits to the registration statement of which this prospectus forms a part. You should read the exhibits carefully for provisions that may be important to you. Any statement made in this prospectus concerning the contents of any contract, agreement or other document is only a summary of the actual document. You may obtain a copy of any document summarized in this prospectus at no cost by writing to or telephoning us at the address and telephone number given below. Each statement regarding a contract, agreement or other document is qualified in its entirety by reference to the actual document. See **Where You Can Find More Information** below.

We have not authorized anyone to provide any information other than that contained or incorporated by reference in this prospectus, any applicable prospectus supplement or in any free writing prospectus prepared by or on behalf of us or to which we have referred you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus may be used only where it is legal to sell these securities. This prospectus is not an offer to sell, or a solicitation of an offer to buy, in any state where the offer or sale is prohibited. The information in this prospectus, any prospectus supplement or any document incorporated herein or therein by reference is accurate as of the date contained on the cover of such documents. Neither the delivery of this prospectus or any prospectus supplement, nor any sale made under this prospectus or any prospectus supplement will, under any circumstances, imply that the information in this prospectus or any prospectus supplement is correct as of any date after the date of this prospectus or any such prospectus supplement or free writing prospectus. Our business, financial condition, results of operations and prospects may have changed since that date.

**ABOUT ACACIA RESEARCH CORPORATION**

*This summary description of us and our business highlights selected information about us contained elsewhere in this prospectus or incorporated herein by reference. This summary may not contain all of the information about us that you should consider before buying securities in this offering. You should carefully read this entire prospectus and any applicable prospectus supplement, including each of the documents incorporated herein by reference, before making an investment decision. As used herein, we, us, and our refer to Acacia Research Corporation and/or its wholly-owned operating subsidiaries.*

**Our Business**

Our operating subsidiaries acquire, develop, license and enforce patented technologies. Our operating subsidiaries generate revenues and related cash flows from the granting of intellectual property rights for the use of patented

technologies that our operating subsidiaries own or control. Our operating subsidiaries assist patent owners with the prosecution and development of their patent portfolios, the protection of their patented inventions from unauthorized use, the generation of licensing revenue from users of their patented technologies and, if necessary, with the enforcement

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against unauthorized users of their patented technologies. As of December 31, 2010, on a consolidated basis, our operating subsidiaries owned or controlled the rights to over 171 patent portfolios, with future patent expiration dates ranging from 2011 to 2029, and covering technologies used in a wide variety of industries.

We are a leader in patent licensing and our operating subsidiaries have established a proven track record of licensing success with more than 960 license agreements executed to date. To date, on a consolidated basis, we have generated revenues from 91 of our technology licensing and enforcement programs. Our professional staff includes in-house patent attorneys, licensing executives, engineers and business development executives.

Our partners include individual inventors and small technology companies who have limited resources and/or expertise to effectively address the unauthorized use of their patented technologies, and also include research laboratories, universities, and large companies seeking to effectively and efficiently monetize their portfolio of patented technologies. In a typical partnering arrangement, our operating subsidiary will acquire a patent portfolio or acquire rights to a patent portfolio, and in exchange, our partner receives (i) an upfront payment for the purchase of the patent portfolio or patent portfolio rights, (ii) a percentage of our operating subsidiary's net recoveries from the licensing and enforcement of the patent portfolio, or (iii) a combination of the two.

Under U.S. law, an inventor or patent owner has the right for a period of time to exclude others from making, selling or using their patented invention. Unfortunately, in the majority of cases, infringers are generally unwilling, at least initially, to negotiate or pay reasonable royalties for their unauthorized use of third-party patents and will typically resist any allegations of patent infringement. Inventors and/or patent holders without sufficient legal, financial and/or expert technical resources to bring and continue the pursuit of a legal action may lack credibility in dealing with unwilling licensees, and as a result, are often blatantly ignored.

As a result of the common reluctance of patent infringers to negotiate and ultimately take a patent license for the use of third-party patented technologies without at least the threat of legal action, patent licensing and enforcement often begins with the filing of patent enforcement litigation. However, the majority of patent infringement contentions settle out of court, based on the strength of the patent claims, evidence of validity, and persuasive evidence and degree of clarity that the patent is being infringed.

We execute patent licensing and intellectual property rights arrangements with users of our patented technologies through willing negotiations without the filing of patent infringement litigation, or through the negotiation of a patent license, intellectual property rights and settlement arrangements in connection with the filing of patent infringement litigation.

## **Our Corporate Information**

We were originally incorporated in California in January 1993 and reincorporated in Delaware in December 1999. Our website address is [www.aciaciaresearch.com](http://www.aciaciaresearch.com). The information contained in or accessible through our website is not incorporated by reference into this prospectus, and you should not consider it a part of this prospectus or any applicable prospectus supplement. Our main offices are located at 500 Newport Center Drive, 7th Floor, Newport Beach, California 92660, and our telephone number is (949) 480-8300.

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**RISK FACTORS**

Before making an investment decision, you should carefully consider the risks described under **Risk Factors** in the applicable prospectus supplement and in our most recent Annual Report on Form 10-K, or any updates in our Quarterly Reports on Form 10-Q, together with all of the other information appearing in this prospectus or incorporated by reference into this prospectus and any applicable prospectus supplement, in light of your particular investment objectives and financial circumstances. Our business, financial condition or results of operations could be materially adversely affected by any of these risks. The trading price of our common stock could decline due to any of these risks, and you may lose all or part of your investment.

**CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS**

This prospectus, any prospectus supplement, any related free writing prospectuses and the documents incorporated by reference herein include forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. Forward-looking statements are those that predict or describe future events or trends and that do not relate solely to historical matters. You can generally identify forward-looking statements as statements containing the words believe, expect, will, anticipate, intend, estimate, project, plan, assume or other similar expressions and the negatives of those expressions, although not all forward-looking statements contain these identifying words. All statements contained or incorporated by reference in this prospectus, any prospectus supplement and any related free writing prospectuses regarding our future strategy, future operations, projected financial position, estimated future revenues, projected costs, future prospects, the future of our industries and results that might be obtained by pursuing management's current plans and objectives are forward-looking statements.

You should not place undue reliance on our forward-looking statements because the matters they describe are subject to known and unknown risks, uncertainties and other unpredictable factors, many of which are beyond our control. Our forward-looking statements are based on the information currently available to us and speak only as of the date on the cover of this prospectus, the date of any prospectus supplement, the date of any related free writing prospectus or, in the case of forward-looking statements incorporated by reference, as of the date of the filing that includes the statement. New risks and uncertainties arise from time to time, and it is impossible for us to predict these matters or how they may affect us. Over time, our actual results, performance or achievements will likely differ from the anticipated results, performance or achievements that are expressed or implied by our forward-looking statements, and such difference might be significant and materially adverse to our security holders. We do not undertake and specifically decline any obligation to update any forward-looking statements or to publicly announce the results of any revisions to any statements to reflect new information or future events or developments.

We have identified some of the important factors that could cause future events to differ from our current expectations and they are described in this prospectus and supplements to this prospectus under the caption **Risk Factors** as well as in our most recent Annual Report on Form 10-K, including, without limitation, under the captions **Risk Factors** and **Management's Discussion and Analysis of Financial Condition and Results of Operations** and in other documents that we may file with the SEC, all of which you should review carefully. Please consider our forward-looking statements in light of those risks as you read this prospectus, any prospectus supplement and any related free writing prospectuses.

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**USE OF PROCEEDS**

We will retain broad discretion over the use of the net proceeds from the sale of any of the common stock offered under this prospectus. Unless otherwise indicated in any applicable prospectus supplement or in any free writing prospectuses in connection with a specific offering, we intend to use any net proceeds from the sale of such common stock for our operations and for other general corporate purposes, including, but not limited to, working capital, strategic acquisitions and other transactions. Pending our use of the net proceeds as described above, we plan to invest the net proceeds in short- and intermediate-term, interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government.

**DESCRIPTION OF COMMON STOCK WE MAY OFFER**

**General**

Our authorized capital stock consists of 100,000,000 shares of common stock, par value \$0.001 per share, and 10,000,000 shares of preferred stock, par value \$0.001 per share. As of December 31, 2010, there were 36,029,068 shares of our common stock outstanding and no shares of our preferred stock outstanding.

The following description of our common stock, together with the additional information included in any applicable prospectus supplements or related free writing prospectuses, summarizes the material terms of our common stock, but it is not complete. For the complete terms of our common stock, please refer to our amended and restated certificate of incorporation and our amended and restated bylaws, as amended, that are incorporated by reference into the registration statement which includes this prospectus.

**Common Stock**

Holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote at a meeting of stockholders and do not have cumulative voting rights. Accordingly, holders of a majority of the shares of our common stock may elect all of the directors standing for election. Holders of our common stock are entitled to receive ratably any dividends declared by our board of directors. Upon our liquidation, dissolution or winding-up, holders of our common stock are entitled to receive ratably our net assets available for distribution after the payment of all debts and other liabilities, subject to any prior rights of any outstanding preferred stock. Holders of our common stock have no preemptive, subscription, redemption or conversion rights. The outstanding shares of our common stock are fully paid and non-assessable.

We have not declared any cash dividends on our common stock and we do not anticipate paying any cash dividends on our common stock in the foreseeable future.

Our common stock is listed on The Nasdaq Global Select Market under the symbol **ACTG**. The transfer agent and registrar for our common stock is Computershare Trust Company, N.A.

**Anti-Takeover Provisions**

As a corporation organized under the laws of the State of Delaware, we are subject to Section 203 of the Delaware General Corporation Law, which restricts our ability to enter into business combinations with an interested stockholder or a stockholder owning 15% or more of our outstanding voting stock, or that stockholder's affiliates or associates, for a period of three years. These restrictions do not apply if:

prior to becoming an interested stockholder, our board of directors approves either the business combination or the transaction in which the stockholder becomes an interested stockholder;



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upon consummation of the transaction in which the stockholder becomes an interested stockholder, the interested stockholder owns at least 85% of our voting stock outstanding at the time the transaction commenced, subject to exceptions; or

on or after the date a stockholder becomes an interested stockholder, the business combination is both approved by our board of directors and authorized at an annual or special meeting of our stockholders by the affirmative vote of at least two-thirds of the outstanding voting stock not owned by the interested stockholder.

Each of our amended and restated certificate of incorporation and amended and restated bylaws, as amended, also include a number of other provisions that may have the effect of deterring hostile takeovers or delaying or preventing changes in control or our management. First, our amended and restated certificate of incorporation and amended and restated bylaws provide for a classified board of directors comprised of three classes of directors with each class serving a staggered three-year term. Under Delaware law, directors of a corporation with a classified board may be removed only for cause unless the corporation's certificate of incorporation provides otherwise. Our amended and restated certificate of incorporation does not provide otherwise. Second, our amended and restated certificate of incorporation gives our board of directors the authority to issue preferred stock, which could potentially be used to discourage attempts by third parties to obtain control of us through a merger, tender offer, proxy or consent solicitation or otherwise, by making those attempts more difficult to achieve or more costly. Third, our amended and restated bylaws, as amended, provide that such bylaws may only be amended by our board of directors or by the holders of 66 2/3%, or a super-majority, of the outstanding shares of our common stock, which makes it more difficult for our stockholders to amend or repeal our amended and restated bylaws, as amended. Fourth, our amended and restated bylaws, as amended, provide that special meetings of our stockholders may only be called by our board of directors, the chairman of our board of directors or our chief executive officer and may not be called by any other person or persons, thus making it more difficult for our stockholders to wage a proxy contest for control of our board of directors or to vote to repeal any of the anti-takeover provisions contained in our amended and restated certificate of incorporation or our amended and restated bylaws, as amended.

**PLAN OF DISTRIBUTION**

We may use this prospectus and any accompanying prospectus supplement to sell our securities from time to time as follows:

directly to purchasers;

through underwriters;

through dealers;

through agents;

through any combination of these methods; or

through any other method permitted by applicable law and described in a prospectus supplement.

Each prospectus supplement relating to an offering of securities will set forth the specific plan of distribution and state the terms of the offering, including:

the method of distribution of the securities offered therein;

the names of any underwriters, dealers, or agents;

the public offering or purchase price of the offered securities and the net proceeds that we will receive from the sale;

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any underwriting discounts, commissions or other items constituting underwriters' compensation;  
any discounts, commissions, or fees allowed, re-allowed or paid to dealers or agents; or  
any securities exchange on which the offered securities may be listed.

**LEGAL MATTERS**

Unless otherwise specified in the applicable prospectus supplement, the validity of the issuance of the securities offered hereby will be passed upon for us by Stradling Yocca Carlson & Rauth, a Professional Corporation.

**EXPERTS**

The consolidated financial statements of Acacia Research Corporation and management's assessment of the effectiveness of internal control over financial reporting (which is included in Management's Report on Internal Control over Financial Reporting) incorporated in this prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2010 have been so incorporated in reliance on the reports of Grant Thornton LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

**WHERE YOU CAN FIND MORE INFORMATION**

We have filed a registration statement on Form S-3 with the Commission with respect to the common stock covered by this prospectus. This prospectus does not include all of the information contained in the registration statement. You should refer to the registration statement and its exhibits for additional information. Whenever we make reference in this prospectus to any of our contracts, agreements or other documents, the references are not necessarily complete and you should refer to the exhibits attached to the registration statement for copies of the actual contract, agreement or other document.

We are subject to the informational requirements of the Exchange Act and in accordance therewith file periodic reports, current reports, proxy statements and other information with the Commission. You may read and copy any document we file at the Commission's public reference room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC toll free at 1-800-SEC-0330 for information about its public reference room. The Commission maintains an internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the Commission, where our Commission filings are also available. The address of the Commission's website is [www.sec.gov](http://www.sec.gov). The information is also available on our website at [www.acaciaresearch.com](http://www.acaciaresearch.com). Information contained in or accessible through our website does not constitute part of this prospectus.

**INCORPORATION OF CERTAIN INFORMATION BY REFERENCE**

The Commission allows us to incorporate by reference the information we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this prospectus. Information in this prospectus supersedes information incorporated by reference that we filed with the Commission prior to the date of this prospectus, while information that we file later with the Commission will automatically update and supersede the information in this prospectus. We incorporate by reference into this registration statement and prospectus the documents listed below, and any future filings we make with the Commission under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act prior to the termination of the offering of common stock covered by this prospectus, except for information



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furnished under any item of Form 8-K, which is neither deemed filed nor incorporated by reference herein:

Our Annual Report on Form 10-K for the fiscal year ended December 31, 2010, filed with the Commission on February 28, 2011, as amended March 24, 2011;

Our Current Reports on Form 8-K, filed with the Commission on January 3, 2011, January 4, 2011, March 3, 2011 and March 4, 2011; and

Our Registration Statement on Form 8-A, filed with the Commission on December 19, 2002, as amended by Form 8-A/A, filed with the Commission on August 14, 2008, describing our common stock, and any amendment or report filed with the Commission for the purpose of updating the description.

You may request a copy of these filings (other than an exhibit to a filing unless that exhibit is specifically incorporated by reference into that filing) at no cost, by writing to us at the following address: Acacia Research Corporation, 500 Newport Center Drive, 7th Floor, Newport Beach, California 92660, Attention: Investor Relations, or by telephoning us at the following telephone number: (949) 480-8300.

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**5,000,000 Shares**

**Acacia Research Corporation  
Common Stock**

Prospectus Supplement  
March 24, 2011

**Barclays Capital**