

Adamis Pharmaceuticals Corporation

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Specialty Pharmaceuticals and Novel Biotechnology Programs

Snapshot October 25, 2011

Adamis Pharmaceuticals Corp. ("Adamis" or "the Company") is an emerging biopharmaceutical company combining **specialty pharmaceuticals**[†] and biotechnology to create treatment options in the areas of allergy, respiratory, oncology, and immunological disorders as well as for infectious diseases. Adamis' initiatives include a prefilled single-dose epinephrine syringe for injection ("PFS") for which the Company is submitting a New Drug Application (NDA) in the U.S. The epinephrine PFS is used for the emergency treatment of anaphylaxis and may have competitive advantages over existing epinephrine products due to its low cost and user friendliness. In addition, Adamis is developing inhaled therapeutics for allergic rhinitis, asthma, and COPD under a December 2010 agreement with Beximco Pharmaceuticals Ltd., a Bangladesh conglomerate with over 400 products ranging from allergy to oncology. In April 2011, Adamis' biotechnology unit completed the acquisition of a novel technology forming the basis for a prostate cancer vaccine called TeloB-VAX. TeloB-VAX is scheduled to enter Phase II studies, for which an Investigational New Drug (IND) application will likely be filed in the fourth quarter 2011. Going forward, the vaccine platform may be able to treat other tumor types, such as lung, breast, and colon cancers, as well as viral diseases, including chronic hepatitis, human papilloma virus (HPV), and influenza. Adamis is also advancing three first-in-class compounds (APC-100, -200, -300) to treat prostate cancer. Two of these have previously received the National Cancer Institute's (NCI) RAPID Award given to promising new cancer drugs. A Phase I/IIa study of APC-100 has already begun, and Adamis expects to submit an IND to begin studies with APC-200 in the first quarter 2012. In addition, through Adamis' reverse merger, it obtained a contraceptive product (C31G) that has completed a successful Phase III study and was shown to have met primary and secondary endpoints.

Recent Financial Data

Ticker (Exchange)	ADMP (OTC.BB)
Tioker (Exchange)	ADMI (CTO.DD)
Recent Price (10/24/2011)	\$0.20
52-week Range	\$0.16 - \$0.31
Shares Outstanding*	~87.9 million
Market Capitalization	~\$17.6 million
Average 3-month Volume	54,946
Insider Owners +5%	~50.8%
Institutional Owners**	~6.28%
EPS (Qtr. ended 6/30/2011)	(\$0.02)
Employees	9



^{*} At July 31, 2011.

Key Points

- Adamis' specialty pharmaceuticals unit is intended to complement its biotechnology unit by providing revenues to support the development of therapeutic products. Specialty pharmaceuticals represent an expanding segment of the healthcare industry, for which the market could exceed \$160 billion by 2013.
- Global sales of prostate cancer therapies are forecast to reach \$4.8 billion by 2015.
- In a Phase I trial at the University of California, San Diego, TeloB-VAX vaccine had a favorable safety profile and was found to induce **T-cells** that killed prostate cancer cells. Adamis intends to file an IND to begin a Phase II study of TeloB-VAX in the fourth quarter 2011.
- The Company has already initiated a Phase I/IIa study of APC-100 for the treatment of **castrate**-resistant prostate cancer. Adamis also intends to file an IND application for a second oral prostate cancer compound, APC-200, in the first quarter 2012.
- The Company plans to launch its epinephrine PFS in 2012, to be followed by three additional specialty pharmaceutical products (two in 2013 and one in 2014).
- At June 30, 2011, Adamis' cash position was \$191,223. During June/July 2011, Adamis received \$1.1 million in milestone payments per an existing \$10 million Common Stock Purchase Agreement.

^{**} Data from Capital IQ (10/25/2011), includes 5.69% held by Colby Pharmaceutical Co.

BOLD WORDS ARE REFERENCED IN THE GLOSSARY ON PAGES 47-49.



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Executive Overview

Adamis Pharmaceuticals Corporation ("Adamis" or "the Company") is an emerging biopharmaceutical company developing treatments in the areas of allergy, respiratory, oncology, immunological disorders, and infectious diseases. Adamis is built on a business model that entails licensing innovative programs from companies or institutions and then advancing these initiatives through the clinical development, regulatory approval, and marketing process. In order to efficiently accomplish its objectives, the Company operates through two subsidiaries—Adamis Laboratories (specialty pharmaceuticals) and Adamis Therapeutics (biotechnology)—which are intended to ultimately complement each other with specialty pharmaceutical revenues supporting the development of therapeutic products.

With this business model, which the Company views as innovative for its sector, Adamis ultimately aims to be able to support its biotechnology activities through revenues generated by sales of its specialty pharmaceuticals. Additionally, the operations of Adamis Laboratories may help mitigate the risks of biotechnology product development.

Specialty Pharmaceuticals

Epinephrine Injection PFS

Adamis seeks to capitalize on an expanding market for specialty pharmaceuticals through the Adamis Laboratories business unit. One of the principal initiatives for Adamis Laboratories is the market launch of a single-dose epinephrine injection in a **prefilled syringe** ("Epinephrine Injection PFS") that can compete as a low-cost, easy-to-use therapeutic alternative to existing branded epinephrine **auto-injectors**. Also known as adrenaline, epinephrine speeds up the heartbeat, strengthens the force of the heart's contractions, opens airways in the lungs, and has numerous other effects that have led to its use in treating an array of respiratory and cardiac conditions. Specifically, Adamis is developing epinephrine injection for the emergency treatment of anaphylaxis, which is a sudden and severe, life-threatening allergic reaction.

As described on pages 15-17 of this Executive Informational Overview[®], there are several branded epinephrine auto-injectors available on the market (the most well-known is the EpiPen[®]) though Adamis believes that these products are characterized by high cost and a lack of user friendliness. It is estimated that up to 70% of epinephrine auto-injectors are never used, as parents purchase the products to keep on hand for emergencies. Based on its market research, Adamis believes that there exists demand for a simpler, more intuitive, and lower-cost epinephrine syringe. The Company anticipates that its prefilled syringe can meet these needs, providing ease of use and enabling lower costs. Adamis aims to file a New Drug Application (NDA) with the U.S. Food and Drug Administration (FDA) to market the Epinephrine Injection PFS.

Inhaled Allergy/Respiratory Candidates

Adamis Laboratories' pipeline also includes an inhaled nasal steroid product to treat seasonal and perennial allergic rhinitis as well as pressurized metered-dose inhalers (pMDIs) for asthma and chronic obstructive pulmonary disease (COPD). The Company's strategy for its inhaled allergy and respiratory candidates is to couple existing off-patent corticosteroids (and other active ingredients) that are known to the FDA and physicians with a well-known **HFA propellant** to create inhaled treatments with potentially reduced product development risks.

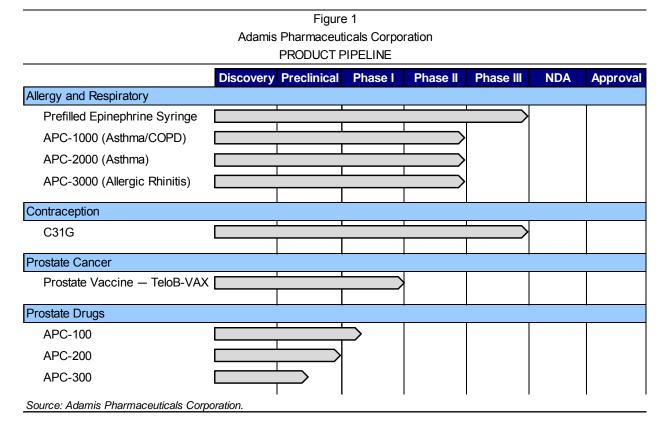
Adamis believes that many pharmaceutical companies have been slow to manufacture HFA products due to the complexity of the production process, which may be marked by poor compatibility of surfactants with HFA and difficulties associated with sealant technologies. While this characteristic may present a barrier to entry for some companies, it may become an opportunity for Adamis, given the Company's partnership with Bangladesh manufacturing conglomerate, Beximco Pharmaceuticals Ltd. (part of Beximco Group [BXP-LON]). Beximco currently produces several HFA products. As described on pages 17-18, Adamis and Beximco entered into a strategic manufacturing, supply, and product development agreement in December 2010.



Globally, the generic market—which Adamis may target with some of its allergy/respiratory candidates—represents approximately \$77 billion in sales and may increase significantly as branded pharmaceuticals lose patent protection valued at up to \$100 billion over the next several years (Source: Datamonitor Group's *Pharmaceutical Key Trends 2011 – Generics Market Overview: Patent cliff set to drive global generic uptake despite tougher market conditions,* April 18, 2011). Worldwide development of new generic products is further fueled by initiatives aimed at combatting rising healthcare costs. In an attempt to bolster the adoption of generic alternatives, physicians are prescribing non-proprietary named products and pharmacists may be incentivized to automatically substitute the generic product.

Adamis plans to launch four products over the next four years, beginning with its epinephrine syringe during 2012. Subsequently, product launches are expected to include inhaled and nasal products for allergic rhinitis, asthma, and COPD. Adamis' pipeline (illustrated in Figure 1) also includes a contraceptive gel that successfully completed a Phase III clinical trial in December 2010. Based on the clinical data, Adamis believes that it can outlicense or partner the contraceptive program, which does not align with the Company's core focus. This product, Savvy®, is described on page 20.

Figure 1 summarizes Adamis' product pipeline, followed by an overview of the biotechnology initiatives.



Biotechnology

Adamis Therapeutics, the Company's biotechnology arm, is furthering the development of patented vaccine technologies and small molecule therapeutics for the treatment of cancer and viral diseases. Adamis is initially targeting prostate cancer with a TeloB-VAX cell-based treatment vaccine and three therapeutic compounds, APC-100, APC-200, and APC-300. Going forward, the vaccine platform underlying TeloB-VAX may also be applicable for the treatment of other tumor types, such as lung, breast, and colon cancers, as well as for viruses including chronic hepatitis, human papilloma virus (HPV), and influenza. In addition to prostate cancer, APC-300 has recently shown effect in preclinical models of melanoma and pancreatic cancer.



The global market for cancer therapies was valued at \$50 billion in 2009 (Source: Business Insights Ltd's *The Cancer Market Outlook to 2015*, August 2010). As part of this market, worldwide sales of prostate cancer therapeutics are forecast to reach \$4.8 billion by 2015, fueled by an aging world population combined with an increased incidence of prostate cancer in men over age 60 (Source: Global Industry Analysts, Inc.'s *Prostate Cancer Therapeutics: A Global Strategic Business Report*, April 2009).

Adamis seeks to meet unmet needs within the prostate cancer market in areas that it believes lack effective and well-tolerated treatments. Prostate cancer is the second most common form of cancer in U.S. men. Following a primary therapy (e.g., surgery or radiation), prostate cancer recurs in roughly 20% to 30% of men.

Cancer Vaccine Platform

In April 2011, Adamis licensed a **telomerase** cancer vaccine, called TeloB-VAX, which has previously been studied in a Phase I clinical trial among patients with castrate-resistant (or hormone-resistant) prostate cancer, a patient population for which standard hormone therapy is no longer effective. Adamis is working to submit an Investigational New Drug (IND) filing with the FDA for this candidate.

In a Phase I study, which was conducted at the University of California, San Diego (UCSD), the TeloB-VAX vaccine was found to be safe and to induce an immune response in vaccinated patients. The patients' T-cells were shown to have the ability to kill prostate cancer cells. Since telomerase is overexpressed in 85% of all cancers, Adamis believes that TeloB-VAX could be used in the treatment of multiple cancer types, such as colon, breast, and lung (Source: *Oncogene* [2002] 21, 643-649).

There are few treatments available for men with castrate-resistant prostate cancer. Existing therapies, including Dendreon Corp.'s (DNDN-NASDAQ) Provenge® (sipuleucel-T) **immunotherapy**, are unable to promise a cure and thus seek to control or slow tumor growth in order to prolong patient survival and minimize symptoms. Additionally, current options are costly and may be associated with severe side effects that lead patients to opt out of therapy because the risks outweigh the potential benefits of treatment (Source: Prostate Conditions Education Council [www.prostateconditions.org]). Despite the risks and high costs, existing late-stage prostate cancer treatments typically only demonstrate a few months of extended patient survival, as summarized in Table 7 (page 23).

Dendreon's Provenge[®] became the first approved therapeutic prostate cancer vaccine in the U.S. in April 2010. It is believed to employ the body's dendritic cells, while Adamis' TeloB-VAX technology capitalizes on the body's B-cells to function as antigen-producing and antigen-presenting cells.

Therapeutic Small Molecules

Adamis also holds exclusive licenses for the development of three small molecule compounds for prostate cancer—APC-100, APC-200, and APC-300—which it acquired in 2010 from Colby Pharmaceutical Company (www.colbypharma.com). To date, more than \$18 million has been spent on the development of these compounds. Funding sources have included the Prostate Cancer Foundation (www.pcf.org), the Department of Defense's Congressionally Directed Medical Research Programs' (CDMRP) Prostate Cancer Research Program (PCRP), and National Cancer Institute (NCI) grants and contracts. In 2006 and 2007, two of these compounds—APC-100 and APC-200—were recognized under the NCI's Rapid Access to Preventive Intervention Development (RAPID) program, which entailed multiyear, multimillion-dollar funding for innovative cancer treatment programs.

Preclinical research on APC-100, APC-200, and APC-300 has confirmed their ability to delay tumor progression and increase survival in animal prostate cancer models. As well, APC-100 may have greater therapeutic activity than currently available products in its class. Adamis believes that patients with recurring prostate cancer could benefit from a non-toxic, oral treatment, such as that provided with these compounds. In particular, they may be best suited to patients where **androgen deprivation therapy** (ADT) has not been approved or is not effective or tolerated.



Development Status

Adamis has initiated a Phase I/IIa study of APC-100 in castrate-resistant prostate cancer. Greater details are provided on page 28. As well, Adamis intends to submit an IND for APC-200 in the first quarter 2012.

Corporate Structure, Headquarters, and Employees

Adamis Pharmaceuticals Corp. was founded in June 2006 and operated as a closely held company until April 2009. In April 2009, the Company and Cellegy Pharmaceuticals, Inc. completed a merger transaction, under which the Company became a publicly traded entity through its agreement with Cellegy. Accordingly, Cellegy became Adamis Pharmaceuticals Corporation and the "old" Adamis Pharmaceuticals Corp. became Adamis Corp., which is now a subsidiary of the Company. Pursuant to the merger, Cellegy (now Adamis Pharmaceuticals Corp.) continued as the surviving issuer company in the transaction. Adamis is presently traded on the Over-the-Counter Bulletin Board (OTC.BB) under the symbol "ADMP" and is headquartered in San Diego, California.

Adamis' primary business activities are concentrated within two wholly owned subsidiaries:

- (1) Adamis Laboratories, Inc., which was acquired by Adamis in April 2007 and develops niche prescription allergy and respiratory therapy products as specialty pharmaceuticals; and
- (2) Adamis Therapeutics Inc. (formerly Adamis Viral Therapies, Inc.), which is primarily focused on developing proprietary cancer treatments.

The Company also has a third subsidiary, Biosyn, Inc., which holds intellectual property related to the contraceptive gel candidate, Savvy[®] (C31G). Savvy[®] recently successfully completed a Phase III study in which predefined primary and secondary endpoints were met. Adamis plans to out-license this product.

Adamis functions as a nearly virtual business. Pipeline compounds are inlicensed from institutions such as the University of California and the University of Wisconsin. The National Institutes of Health (NIH) through the NCI has performed pharmacology and toxicology work under the government's RAPID awards programs. Altogether, Adamis employs nine individuals, including its executive management, with outsourced research and development to minimize overhead.



Growth Strategy

Adamis is focused on co-developing five to ten product candidates within the allergy/respiratory and oncology therapeutic areas. Part of this development is centered within what Adamis has identified as niche respiratory markets, such as inhaled product candidates for seasonal and perennial allergic rhinitis, asthma, and COPD.

The Epinephrine Injection PFS program represents an important aspect of Adamis' commercialization strategy. The Company intends to introduce this product first, achieving recognition for the Company, and then follow it with the subsequent commercial launch of other revenue-generating products. Adamis anticipates being responsible for its candidates' U.S. regulatory approvals, while entering into partnerships for products worldwide. For example, under the strategic partnership with Beximco (described on pages 17-18), Adamis is responsible for the U.S. regulatory approval and sales of medications co-developed by the companies.

To increase adoption of any marketed products, Adamis may also evaluate partnerships with other pharmaceutical companies that can help target primary care markets. The Company further expects to emphasize specialty prescribing audiences, such as allergists, pulmonologists, and ear, nose, and throat (ENT) physicians.

Additionally, in order to increase the breadth of its product pipeline, Adamis continues to seek out potential new product candidates, re-formulations, indications, and technologies that are synergistic with its niche marketing strategy.

Cancer Programs

Adamis believes that its cancer immunotherapy development efforts, including its TeloB-VAX cell-based vaccine treatment, add significant value to the Company. Based on research to date, the Company believes that the TeloB-VAX candidate possesses scientific and manufacturing advantages that could be beneficial in the marketplace (as detailed on pages 23-26). The global market for biological cancer treatments is expanding, particularly influenced by Dendreon's U.S. approval of Provenge[®] in April 2010 for metastatic hormone-independent prostate cancer. In 2010, Dendreon reported revenues of \$48 million for Provenge[®] (Source: Dendreon's Form 10-K filed March 1, 2011).

Further validating the potential for oncology biotechs, in July 2009, Johnson & Johnson (JNJ-NYSE) acquired Cougar Biotechnology, Inc. for nearly \$900 million. Cougar, a development-stage oncology company, was conducting Phase III trials of abiraterone acetate, a compound to treat metastatic, castrate-resistant prostate cancer (details provided on pages 21-23). Subsequently, in January 2011, Amgen, Inc. (AMGN-NASDAQ) agreed to acquire the BioVex Group, Inc. for up to \$1 billion (depending upon the completion of certain regulatory and sales milestones), which included rights to OncoVEX^{GM-CSF}, a Phase III cancer vaccine against head and neck and melanoma cancer.



Intellectual Property

Table 1 (below and continued on page 9) summarizes Adamis' intellectual property position for its development programs, followed by details of the Company's patent protection for several of its key initiatives on page 9.

Table 1

Adamis Pharmaceuticals Corporation

INTELLECTUAL PROPERTY SUMMARY

	1.	INTELLECTOAL PRO		
Program	Country	Status	Filing Date (Issue Date)	Patent # (where applicable)
APC-100	U.S.	Filed	10/19/2009	
APC-100	U.S.	Issued	5/29/2008 (1/4/2011)	7863324
APC-100	U.S.	Issued	2/27/2004 (5/4/2010)	7709525
APC-100	WIPO (PCT)	Effected	2/27/2004	
APC-100	Netherlands	Issued	2/27/2004 (10/29/2008)	1596857
APC-100	Italy	Issued	2/27/2004 (10/29/2008)	1596857
APC-100	Ireland	Issued	2/27/2004 (10/29/2008)	1596857
APC-100	Hong Kong	Issued	2/27/2004 (6/12/2009)	HK1088214
APC-100	Great Britain	Issued	2/27/2004 (10/29/2008)	1596857
APC-100	France	Issued	2/27/2004 (10/29/2008)	1596857
APC-100	Spain	Issued	2/27/2004 (10/29/2008)	1596857
APC-100	Europe Patent Office	Effected	2/27/2004 (10/29/2008)	1596857
APC-100	Germany	Issued	2/27/2004 (10/29/2008)	602004017425.4-
APC-100	Switzerland	Issued	2/27/2004 (10/29/2008)	1596857
APC-100	Canada	Filed	2/27/2004	
APC-100	Belgium	Issued	2/27/2004 (10/29/2008)	1596857
APC-100	Australia	Issued	2/27/2004 (11/19/2010)	2004260631
APC-100	Austria	Issued	2/27/2004 (10/29/2008)	1596857
APC-200	Hong Kong	Filed	5/3/2007	
APC-200	South Africa	Application-Allowed	5/3/2007	
APC-200	WIPO (PCT)	Effected	5/3/2007	
APC-200	Venezuela	Filed	5/3/2007	
APC-200	U.S.	Filed	5/3/2007	
APC-200	Taiwan (Province of)	Filed	5/3/2007	
APC-200	Thailand	Filed	5/3/2007	
APC-200	Singapore	Application-Allowed	5/3/2007	
APC-200	Russia	Filed	5/3/2007	
APC-200	New Zealand	Filed	5/3/2007	
APC-200	Mexico	Filed	5/3/2007	
APC-200	Korea (Republic of)	Filed	5/3/2007	
APC-200	Japan	Filed	5/3/2007	
APC-200	India	Filed	5/3/2007	
APC-200	Israel	Filed	5/3/2007	
APC-200	Indonesia	Filed	5/3/2007	
APC-200	Europe Patent Office	Filed	5/3/2007	
APC-200	China	Filed	5/3/2007	
APC-200	Canada	Filed	5/3/2007	
APC-200	Brazil	Filed	5/3/2007	
APC-200	Australia	Filed	5/3/2007	
APC-200	Argentina	Filed	5/3/2007	
APC-200	Singapore	Issued	6/30/2011	147581
APC-200	South Africa	Issued	9/29/2010	2008/10058
Source: Adam	is Pharmaceuticals Corpora	ation.		



Table 1 (continued) Adamis Pharmaceuticals Corporation INTELLECTUAL PROPERTY SUMMARY

Program	Country	Status	Filing Date (Issue Date)	Patent # (where applicable)	
APC-300	U.S.	Filed	3/2/2005		
APC-300	U.S.	Filed	4/15/2008		
C31G	African Union (OAPI)	Issued	7/17/1991 (9/15/1994)	9911	
C31G	Namibia	Issued	3/19/1992 (11/25/1992)	92/0017	
C31G	U.S.	Issued	3/22/1991 (5/24/1994)	5,314,917	
C31G	U.S.	Issued	4/4/1994 (10/2/2001)	6,297,278	
Telomerase	U.S.	Issued	4/27/1999	7,388,071	
Telomerase	U.S.	Issued	12/14/2010	7,851,591	
STI Vaccine	U.S.	Issued	12/18/2006	7,279,462	
STI Vaccine	U.S.	Issued	8/19/1997	5,658,762	
STI Vaccine	U.S.	Pending	3/2/2007		
STI Vaccine	U.S.	Pending	4/27/2000		
STI Vaccine	Canada	Issued	4/27/2000	2,369,616	
STI Vaccine	Europe	Issued	3/9/2011	EP 1181320 B1	
STI Vaccine	Japan	On Appeal	4/27/2000		
STI Vaccine	Japan	Pending	4/27/2000		
Source: Adamis	Source: Adamis Pharmaceuticals Corporation.				

Epinephrine Injection PFS

The epinephrine syringe includes a prefilled syringe containing epinephrine, a specially designed plunger to precisely measure the correct dosage, and a plastic carrying case.

TeloB-VAX

In April 2011, Adamis licensed complementary patents (listed below) related to the TeloB-VAX cancer vaccine from the Regents of the University of California and the Dana-Farber/Harvard Cancer Center. As well, Adamis seeks to file additional patent applications to protect its vaccine technology.

- Patent 7,388,071: "Composition and Method for Inducing and Enhancing a Telomerase Reverse Transciptase-Reactive Cytotoxic T Lymphocyte Response"
- Patent 7,851,591: "Cancer Immunotherapy and Diagnosis Using Universal Tumor Associated Antigens, Including Human Telomerase Reverse Transciptase (hTERT)"

Small Molecule Compounds for Prostate Cancer

During 2010, Adamis licensed the exclusive rights to its pipeline of small molecule compounds for prostate cancer (APC-100, APC-200, and APC-300) from Colby Pharmaceutical Company in exchange for the issuance of approximately six million shares of Common Stock. Patents have already been issued in the U.S. and in certain foreign markets such as Japan, and additional patent applications are in progress. Adamis holds worldwide issued and pending intellectual property for APC-100; globally pending patent applications for APC-200; and U.S. pending patent applications for APC-300. Colby licensed the patents, patent applications, and associated intellectual property relating to the compounds pursuant to license agreements with the Wisconsin Alumni Research Foundation (WARF).



Company Leadership

Management

Adamis is led by individuals with considerable expertise in biotechnology, immunology, cancer management, and pharmaceutical research and development, among other medical fields key to the Company's business. As well, members of management are experienced in executive corporate leadership and financial operations, coming from companies such as Citigroup Global Markets Inc. (part of Citigroup Inc. [C-NYSE]) and Merrill Lynch (part of Bank of America Corp. [BAC-NYSE]). Table 2 summarizes Adamis' key management, followed by detailed biographies.

	Table 2		
	Adamis Pharmaceuticals Corporation		
	MANAGEMENT .		
Dennis J. Carlo, Ph.D.	President and Chief Executive Officer		
Robert O. Hopkins, MBA	Vice President and Chief Financial Officer		
David J. Marguglio	Senior Vice President of Corporate Development		
Thomas Moll, Ph.D.	Vice President of Research		
Karen K. Daniels	Vice President of Operations		

Source: Adamis Pharmaceuticals Corporation.

Dennis J. Carlo, Ph.D., President and Chief Executive Officer

Dr. Carlo is a cofounder of Adamis and has served as its president and chief executive officer (CEO) since October 2006. Dr. Carlo has extensive biotech research and development experience and is regarded as one of the "Founding Fathers" of the San Diego biotech industry. He was one of the original "Test Tube Cowboys" of Hybritech Inc., which was acquired by Eli Lilly & Co (LLY-NYSE) in 1985. He served as vice president of research and development and therapeutic manufacturing at Hybritech. After the sale to Lilly, Dr. Carlo, along with Dr. Jonas Salk, James Glavin, and Kevin Kimberlin, founded The Immune Response Corporation (which subsequently became Orchestra Therapeutics, Inc.), where he served in various capacities, including chief scientific officer (CSO), chief operating officer (COO), president, and CEO. He served as president of Telos Pharmaceuticals, a closely held biotechnology company, from 2003 to 2006. Dr. Carlo has extensive experience in the development of vaccines and biologics. Early in his career, as director of developmental and basic cellular immunology and director of bacterial vaccines and immunology at Merck & Co. (MRK-NYSE), he oversaw research and product development for PNEUMOVAX (multivalent polysaccharide vaccine), MENINGOVAX A, MENINGOVAX C, MENINGOVAX A-C, and H. influenza type b, and also directed a multidisciplinary task force whose goal was the development of novel adjuvants. At Hybritech, he managed a program to execute research and development in the area of monoclonal antibody and cancer therapy. At The Immune Response Corp., he established programs in autoimmunity, gene therapy, and HIV, and led product development in clinical trials. Dr. Carlo received a B.S. in microbiology and a Ph.D. in immunology and medical microbiology from Ohio State University. He is named on 23 patents and has authored over 225 articles and abstracts in the field of immunology.



Robert O. Hopkins, MBA, Vice President and Chief Financial Officer

Mr. Hopkins joined Adamis in April 2007 and has been vice president, finance and chief financial officer (CFO) since that time. From 2000 to 2004, he was an executive vice president and the CFO of Chatham Capital Corp. In that position, he managed financial operations for a corporation that held several hospitals, an extensive life sciences operation, and a number of other business units within its portfolio. Mr. Hopkins served as CFO of Veritel Corp., a biometric software company, from 1999 to 2000. He has also served as COO for Circle Trust Company from 2004 to 2005, during which time he was responsible for corporate reorganization after acquiring a troubled trust company. From 2005 until Mr. Hopkins joined Adamis in April 2007, he consulted for Acumen Enterprises, providing analysis and business plans for the various projects with which the company was involved. From 1997 to 1999, Mr. Hopkins was senior vice president for finance for the Mariner Post-Acute Network, Inc. in Atlanta, Georgia. In this position, he was responsible for financial management of a division consisting of 12 long-term, acute care hospitals. Among his previous medical-related experience, he has served as assistant administrator of finance for Kindred Hospitals; president and CEO of Doctors Hospital of Hyde Park; and vice president of accounting for Cancer Treatment Centers of America. Mr. Hopkins received a B.S. in finance from Indiana State University and an MBA from Lake Forest Graduate School of Management.

David J. Marguglio, Senior Vice President of Corporate Development

Mr. Marguglio is a cofounder of Adamis and has been responsible for Adamis' corporate development since the Company's inception in June 2006. From 1996 to 2006, he held various vice president positions with Citigroup Global Markets, Smith Barney (part of Citigroup Global Markets), and Merrill Lynch. Before entering the financial industry, from 1994 to 1996, he founded and ran two start-up companies, one of which was eventually acquired by a Fortune 100 company. Mr. Marguglio began his career as a financial analyst. He received a degree in finance and business management from the Hankamer School of Business at Baylor University.

Thomas Moll, Ph.D., Vice President of Research

Dr. Moll has close to 20 years of experience in both academic and industrial preclinical research and development in the areas of inflammation, immunology, and cancer biology. As part of his work, Dr. Moll has gained extensive experience in the generation, production, and use of biologics, including protein/Fc chimeras, antibodies, and gene therapeutics. After concluding his diploma studies in biochemistry at the Biocenter, University of Basel, Switzerland, Dr. Moll received a doctorate (with honors) in genetics and biochemistry from the University of Vienna, Austria, Subsequent to work in Vienna with Boehringer Ingelheim GmbH and Sandoz (now Novartis AG [NVS-NYSE]), Dr. Moll served as assistant professor at the University of Münster, Germany, before joining Cardion AG, a closely held German biotech. At Cardion (then Cardiogene AG). Dr. Moll was initially in charge of the company's preclinical cardiovascular gene therapy program, before taking over responsibility for Cardion's immunology programs as vice president of immunology. In this function, he supervised the research and preclinical development of several protein/Fc fusion proteins, including CRB-15, an antagonist IL-15/Fc fusion protein. In 2003, Roche Pharmaceuticals (Roche Holding Ltd. [RHHBY-OTC]) licensed this protein for clinical development in various autoimmune disease indications. Before joining the Adamis management team, Dr. Moll was responsible for all research and development activities at Telos Pharmaceuticals. He serves as editor of the Journal of Immune Based Therapies and Vaccines and has been a member of the European Society of Gene Therapy, the North American Vascular Biology Organization, the American Association of Immunologists, and the American Society of Transplantation.



Karen K. Daniels, Vice President of Operations

Ms. Daniels joined Adamis in July 2009 as vice president of operations. She has over 30 years of experience in operational and engineering roles across diverse industries, including electronics, medical devices, contract manufacturing, and pharmaceutical manufacturing. Prior to joining Adamis, Ms. Daniels served as president of Althea Technologies, Inc. from 2007 to 2009. Althea is a contract manufacturer for the pharmaceutical industry. She also served as senior director of operations and logistics for Vidacare Corp., a medical device manufacturer from 2006 to 2007. Other roles have included president at Lambda Power from 2003 to 2006, general manager for Plexus Corporation (PLXS-NASDAQ) and COO of Qtron, which was sold to Plexus, from 1999 to 2003. Ms. Daniels holds a B.S. from the University of Arizona.

Board of Directors

The Board of Directors oversees the conduct of and supervises the Company's management. Table 3 provides a summary of Board members, followed by detailed biographies.

	Table 3
	Adamis Pharmaceuticals Corporation
	BOARD OF DIRECTORS
Dennis J. Carlo, Ph.D.	President and Chief Executive Officer, Adamis
David J. Marguglio	Senior Vice President of Corporate Development, Adamis
Tina S. Nova, Ph.D.	President, Genoptix, Inc.
Craig A. Johnson, CPA	Senior Vice President and Chief Financial Officer, Pure Biosciences, Inc.
Kenneth M. Cohen, MBA	Consultant to Life Science Companies

Source: Adamis Pharmaceuticals Corporation.

Dennis J. Carlo, Ph.D., President and Chief Executive Officer, Adamis

Biography on page 10.

David J. Marguglio, Senior Vice President of Corporate Development, Adamis

Biography on page 11.

Tina S. Nova, Ph.D., President, Genoptix, Inc.

Since 2000, Dr. Nova has served as cofounder, president, CEO, and a director of Genoptix, Inc., a formerly public medical laboratory diagnostics company based in Carlsbad, California. In February 2011, Genoptix announced an all-cash tender offer by Novartis for all of the outstanding shares of Genoptix at a per share price that implied a total fully diluted equity value of approximately \$470 million and an enterprise value of approximately \$330 million. She is currently the president of Genoptix, a subsidiary of Novartis. Before joining Genoptix, Dr. Nova held executive positions with several life science companies. Dr. Nova currently serves as a member of the Board of Directors of Arena Pharmaceuticals, Inc. (ARNA-NASDAQ) and Cypress Bioscience, Inc., both clinical-stage biopharmaceutical companies. Dr. Nova's appointment fills a vacancy created by the resignation of Karen Klause, who resigned from Adamis' Board in connection with the appointment of the new directors because of unexpected family and health-related reasons.

Dr. Nova was a cofounder of Nanogen, Inc., a provider of molecular diagnostic tests, and she served as its COO and president from 1994 to 2000. She served as COO of Selective Genetics, a targeted therapy biotechnology company, from 1992 to 1994, and in various director-level positions with Ligand Pharmaceuticals Inc. (LGND-NASDAQ) from 1988 to 1992, most recently as executive director of new leads discovery. Dr. Nova has also held various research and management positions with Hybritech. She was the chair of the Board of Directors of BIOCOM from March 2001 to March 2002. Dr. Nova holds a B.S. in biological sciences from the University of California, Irvine and a Ph.D. in biochemistry from the University of California, Riverside.



Craig A. Johnson, CPA, Senior Vice President and Chief Financial Officer, Pure Biosciences, Inc.

Mr. Johnson has served as one of Adamis' directors since February 2011. He was appointed the CFO of Pure Biosciences, Inc. (PURE-NASDAQ) in June 2011. From June 2010 to June 2011, he was CFO of NovaDel Pharma, Inc. (NVDL-OTC). Mr. Johnson was the vice president of TPTX, Inc., a wholly owned subsidiary of Raptor Pharmaceutical Corp. (RPTP-NASDAQ) from October 2009 to March 2010, and served as vice president and CFO of TorreyPines Therapeutics, Inc. from 2004 until its sale to Raptor in 2009. From 1994 to 2004, Mr. Johnson was employed by MitoKor, Inc. and last held the position of CFO and senior vice president of operations. Prior to joining MitoKor, he was a senior financial executive for several early-stage technology companies. From 1984 to 1988, Mr. Johnson worked for the accounting firm Price Waterhouse LLP. He has been actively involved in the Association of Bioscience Financial Officers since 1998. Mr. Johnson received a B.B.A. in accounting from the University of Michigan and is a certified public accountant (CPA).

Kenneth M. Cohen, MBA, Consultant to Life Science Companies

Mr. Cohen has served as one of Adamis' directors since January 2011. He is an advisor to companies, entrepreneurs, and investors in the life sciences arena, and is currently chairman of Pier Pharmaceuticals, a closely held clinical-stage biopharmaceutical company engaged in the treatment of sleep-related breathing disorders. He was a cofounder of Somaxon Pharmaceuticals, Inc. (SOMX-NASDAQ) and served as its president and CEO from August 2003 through December 2007 and continued as a director until June 2008. Previously, he was an independent advisor to various biotechnology and pharmaceutical companies, entrepreneurs, and investors, including Applied NeuroSolutions, Inc. (APSN-OTC) and Highbridge Capital Management. From May 1996 to April 2001, he was president and CEO of Synbiotics Corp. (SYNB-OTC). From March 1995 to February 1996, Mr. Cohen was executive vice president and COO for Canji Inc., a human gene-therapy company, until its acquisition by Schering-Plough Corp. (now part of Merck) in February 1996. Prior to joining Canji, he was vice president of business affairs at Argus Pharmaceuticals, Inc. and vice president of marketing and business development for LifeCell Corporation. Mr. Cohen began his career at Lilly in 1978, where, among many different responsibilities over 10 years, he directed business planning for the Medical Instrument Systems Division and managed the launch of Prozac[®]. He received an A.B. in biology and chemistry from Dartmouth College and an MBA from the Wharton School of the University of Pennsylvania.



Core Story

Adamis Pharmaceuticals Corporation ("Adamis" or "the Company") leverages both specialty pharmaceuticals and biotechnology in the development of new therapeutics in the areas of allergy, respiratory, oncology, immunological disorders, and infectious diseases. The Company is structured into two wholly owned units: Adamis Laboratories (specialty pharmaceuticals) and Adamis Therapeutics (biotechnology). Adamis Laboratories and Adamis Therapeutics are intended to ultimately complement each other with specialty pharmaceutical revenues supporting the development of therapeutic products.

The accompanying pages detail each of Adamis' current product development programs, manufacturing agreements, and key market dynamics.

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Specialty Pharmaceuticals

ALLERGY/RESPIRATORY

Epinephrine Injection PFS

Adamis' lead pharmaceutical initiative is a single-dose epinephrine for injection delivered in a prefilled syringe (Epinephrine Injection USP 1:1000 [0.3 mg Prefilled Single-Dose Syringe]), as illustrated in Figure 2. This product candidate is targeted for the emergency treatment of severe, life-threatening allergic reactions known as anaphylaxis.

Figure 2
Adamis Pharmaceuticals Corporation
EPINEPHRINE INJECTION PFS



Source: Adamis Pharmaceuticals Corporation.

In 2007, Adamis established the Adamis Laboratories subsidiary, which was acquired through a merger with Florida-based Aero Pharmaceuticals. Its initial focus was to develop and commercialize several product candidates, which included a prefilled, single-dose epinephrine syringe product. Adamis seeks to make available a prefilled epinephrine syringe product at a lower cost than today's epinephrine injection standard, the EpiPen[®]. Marketed in the U.S. by Dey Pharma, L.P., a subsidiary of Mylan Inc. (MYL-NASDAQ), EpiPen[®] auto-injectors are used by patients who self-administer epinephrine for severe allergic reactions. In the U.S., these injections can range in price from \$80 to over \$100 each through online and in-store pharmacies (prescriptions are required). In Canada, the EpiPen[®] is sold by King Pharmaceuticals, which was acquired by Pfizer Inc. (PFE-NYSE) in February 2011.

Market Opportunities

Epinephrine is a hormone produced by the body in response to stress. It acts to increase heart rate, constrict the blood vessels, and relax the bronchi (the large air tubes leading from the trachea to the lungs). This hormone is produced synthetically as a treatment for an array of conditions, including bronchial asthma, acute allergic disorders, **open-angle glaucoma**, **cardiac arrest**, and **heart block**, and as a topical and local **vasoconstrictor**.



Epinephrine is frequently prescribed as an emergency at-home injection for treating severe allergic reactions (anaphylactic shock) to insect bites, foods, medications, latex, or other triggers. Prescription epinephrine injections today are packaged as auto-injectors, which are devices that automatically insert a needle and inject a specified dose of medication. Some auto-injectors also automatically withdraw and hide the needle after an injection. Previously, there have been competitive prefilled syringe alternatives, such as Hollister Stier Laboratories' Ana-Kit® syringe filled with epinephrine from Wyeth-Ayerst Laboratories. However, Wyeth exited the business in 2001 for financial and manufacturing reasons. As pictured in Figure 2 (page 15), Adamis has developed and is working to receive commercial approval for a prefilled epinephrine syringe that the Company believes can be provided at a lower cost and with greater user friendliness than current epinephrine products.

Epinephrine in various forms of delivery is also used in hospitals, ambulances, and other settings to treat conditions in addition to anaphylaxis. American Regent, Inc., JHP Pharmaceuticals, LLC, and Hospira Inc. (HSP-NYSE) are believed to be the only remaining U.S. manufacturers of epinephrine 1 mg/10 mL (0.1 mg/mL) emergency epinephrine in syringes, vials, or ampules (Sources: the American Academy of Family Physicians [AAFP] July 2, 2010, and *Red Book: Pharmacy's Fundamental Reference*). These products are used in cases of heart attacks, drownings, electrocutions, asthma, and other emergency situations where the heart stops. To Adamis' knowledge, there is not currently a prefilled syringe marketed in the U.S. to treat anaphylaxis. There are, however, epinephrine auto-injectors—a different form of injection delivery than a prefilled syringe—as detailed below.

Epinephrine Injections for Anaphylaxis

Adamis estimates that the market for injectable epinephrine for the treatment of anaphylaxis is valued at approximately \$250 million. The EpiPen® Auto-Injector is considered to be a market leader in the injectable epinephrine space. It is reported to be the most prescribed epinephrine auto-injector with over 90% market share in the U.S. and worldwide (Source: Mylan Inc.'s Form 10-Q filed May 3, 2011). The injectable epinephrine for treatment of anaphylaxis sector also includes additional auto-injector brands, which may vary in dose quantity or strength, as well as generic auto-injectors. Not included in the above market value are ampules and vials, which are typically used in ambulances and healthcare settings. Table 4 summarizes pricing for a selection of key products in this space, with greater details of each of these and other commercial alternatives on pages 31-34 of the Competition section of this report.

Table 4
PRICE COMPARISON FOR A SELECTION OF MARKETED EPINEPHRINE PRODUCTS

Product	Delivery	Manufacturer or Chief Distributor	Approx. Retail Price*
EpiPen [®]	Auto-injector	Mylan Inc., King Pharmaceuticals, distributors	\$108.99
Twinject [®]	Auto-injector	Shionogi Pharma, Inc.	\$94.99 - \$162.99
Adrenaclick [®]	Auto-injector	Shionogi Pharma, Inc.	\$118.99
epinephrine injection, USP**	Auto-injector	Greenstone LLC (Pfizer's U.S. generics subsidiary)	\$71.99

^{*} These products are available in varying strengths and doses, which affects pricing. Prices shown are for the versions most likely to be comparable to Adamis' epinephrine injection, which is a 0.3 mg, single dose of epinephrine.

Sources: Crystal Research Associates, LLC, product websites, DailyMed (a service of the U.S. National Library of Medicine, U.S. National Institutes of Health), and Target Corp. (TGT-NYSE) Pharmacy.

Because epinephrine can be difficult to manufacture, due to sensitivities to oxygen, heat, light, and other constraints, Adamis believes there is a void in the market that is not being adequately fulfilled by generic pharmaceutical companies. The Company maintains that there is an opportunity for a low-cost therapeutic syringe alternative to the EpiPen® and other auto-injectors.

It is estimated that over 70% of epinephrine syringes for injection are never used, as parents purchase the products to keep on hand for use only in an emergency. Based on its market research, Adamis believes that there exists demand for a simpler, more intuitive, and lower-cost epinephrine syringe that has greater user friendliness. The Company anticipates that its prefilled syringe can meet these needs, chiefly providing ease of use and enabling lower costs.

^{**} Authorized generic marketed as of 03/31/2010 under a New Drug Application (NDA) filed with the FDA



Increasing Demand for Anaphylaxis Treatments

The exact incidence of anaphylaxis is unknown due to varying views on what constitutes the reaction and because many cases go unreported. However, the prevalence of anaphylaxis is believed to be increasing as there is greater exposure to potential allergens. It is estimated that the lifetime prevalence of anaphylaxis is 0.05% to 2.0% of the global population, thus potentially affecting up to 138 million individuals (Sources: *Journal of Allergy and Clinical Immunology* 2010; 126[6]:S1-58 and the U.S. Census Bureau).

Anaphylaxis can be trigged by an insect sting or contact with latex, food, or certain medicines, among other allergens. Anaphylactic shock caused by insect stings occurs in 0.5% to 5% of the U.S. population, or potentially in up to approximately 15 million persons. Anaphylactic shock results in as many as 500,000 emergency room visits and at least 40 deaths annually (Source: the American College of Allergy, Asthma, and Immunology [ACAAI]). Roughly 12 million people in the U.S., or 4% of the population, have a food allergy that could lead to anaphylaxis (Source: *Current Allergy and Asthma Reports* 2009; 9[1]:57-63). Allergies to medication (e.g., penicillin) also impact a significant portion of the population, affecting 2% to 3% of hospitalized patients (Source: Asthma and Allergy Foundation of America). Slightly less common is a latex allergy, which affects roughly three million people in the U.S., or less than 1% of the total population (Source: the American Latex Allergy Association).

Development Status of Adamis' Epinephrine Injection PFS

The Company has entered into an agreement with Catalent, Inc. for the sterile manufacture and supply of its prefilled epinephrine syringe and is poised to submit a New Drug Application (NDA) to the FDA for the sale of the product. Catalent is a global full-service contract development and manufacturing company. It employs over 1,000 scientists, has had a role in approximately 40% of recent new drug approvals, and operates 24 locations worldwide that package over 100 billion units annually.

Adamis' prefilled epinephrine injection was previously launched in the U.S.—initially in July 2009. It was manufactured and packaged by Catalent and Adamis possessed a drug listing number for the product. The epinephrine syringe for injection was carried by several large wholesalers and was eligible for insurance reimbursement. Adamis estimates that consumers were able to purchase two of its single-dose syringes for less than the cost of one EpiPen® product. As a result, Adamis began facing pressure from Dey Pharma (the U.S. supplier of EpiPen®) and the FDA regarding its right to market the product. Since mid-2010, the Company has been in discussions with the FDA and the Small Business Administration, which agreed in November 2010 to allow Adamis to file regulatory applications as a "small business." This designation was key as it reduces filing fees. Based on these interactions, Adamis expects to file Form 505(b)(2) (a type of NDA) with the FDA over the next 12 to 24 months, for which submission costs may total over \$770,000. If successfully approved, the 505(b)(2) would allow the Company to resume marketing of its prefilled, single-dose epinephrine syringe. The regulatory dossier relating to the product has been completed and is ready to be submitted to the FDA for review.

Manufacturing Agreement with Beximco

In December 2010, Adamis and Bangladesh-based Beximco Pharmaceuticals Ltd. entered into a strategic manufacturing, supply, and product development agreement. Per the agreement, the companies intend to introduce at least three separate allergy and asthma products into the U.S. over the next three years.

Beximco has selected Adamis to help it capitalize on generic drug opportunities in the U.S. market. As such, Adamis and Beximco are co-developing certain drugs, some of which Beximco is currently producing for the European market. As a U.S. partner for Beximco, Adamis is likely to be responsible for U.S. sales and regulatory approvals as the companies seek to introduce a number of proprietary and generic formulations and drugs into the U.S. and Canadian markets.

Adamis anticipates that this relationship can help it move toward profitability with a pipeline that may support long-term growth. Beximco's portfolio contains over 400 products ranging from allergies to oncology, and is expected to increase the depth of Adamis' specialty pharmaceuticals business.



About Beximco Pharmaceuticals

Beximco (www.beximco-pharma.com) is an industrial conglomerate in Bangladesh. Among many other products and sectors, Beximco maintains a pharmaceutical division that manufactures pharmaceutical formulations, generics, and active pharmaceutical ingredients and is the country's largest exporter of pharmaceuticals. Beximco possesses manufacturing facilities that have been certified by regulatory agencies in Australia, Gulf nations, and Brazil, among others (Source: Beximco Pharmaceuticals Ltd.). Its product portfolio comprises antibiotics, anti-hypertensives, diabetes drugs, anti-retrovirals, asthma inhalers, and others. Beximco employs over 3,000 individuals.

Inhaled Nasal Steroid

In addition to its epinephrine injection candidate described on pages 15-17, Adamis is also focusing on development work in the allergic rhinitis field. Allergic rhinitis is a collection of symptoms occurring primarily in the nose and eyes in response to breathing in an allergen, such as dust, dander, or pollen. Hay fever is a common form of allergic rhinitis. For this indication, the Company's pipeline includes an aerosolized inhaled nasal steroid for seasonal and perennial allergic rhinitis.

In recent years, treatment of allergic rhinitis has transitioned from gas-propelled chlorofluorocarbon (CFC) products to aqueous spray products. While CFCs have been routinely employed in the past, the use of this gas is now known to contribute to the depletion of ozone in the atmosphere and thus CFC gas has been phased out for all medical products, including allergy medicines. With most current nasal products being aqueous sprays, there is an unmet need for gas-propelled nasal sprays. In place of CFCs, products are now being developed using hydrofluoroalkane (HFA) as a propellant. HFA gas is cleared for use by the FDA and is found in many inhaler products on the market today, including Ventolin® HFA (an asthma inhaler from GlaxoSmithKline plc [GSK-NYSE]), Teva Respiratory, LLC's (TEVA-NASDAQ) ProAir® HFA (for asthma, exercise-induced bronchospasm [EIB], and chronic obstructive pulmonary disease [COPD]), and Schering Corp.'s (a subsidiary of Merck & Co., Inc.) Proventil® HFA for the treatment or prevention of bronchospasm with reversible obstructive airway disease and EIB.

Corticosteroids work to suppress inflammation and the body's immune response. Prescription nasal steroid sprays are often the first line of treatment against allergic rhinitis, and are most effective when used daily during allergy season. Based on its research, Adamis estimates that approximately 80% of today's inhaled rhinitis products are aqueous-propelled corticosteroids. However, both the elderly and the very young may have difficulty using aqueous-delivered products, as these products require coordination and must be sniffed up the nose. If patients sniff too hard, they will likely inhale the medicine too far and swallow it, which has a bad taste. Thus, alternative options for these populations (which Adamis estimates represent roughly 20% of rhinitis patients) would be gas-propelled steroids. Rather than competing with the market-leading aqueous products, Adamis is targeting the patients who would prefer an alternative to standard aqueous products. To do so, the Company is employing existing off-patent corticosteroids that are already known to the FDA and physicians. Adamis couples these steroids with HFA, a gas with a clear regulatory path. This strategy of using known, off-patent components is anticipated to reduce product development risks for Adamis.

The Company has contracted with Beximco for the production of inhaled nasal steroid products for sale in the U.S. Beximco has already demonstrated an ability to produce HFA products. Adamis believes that many pharmaceutical companies have been slow to manufacture HFA products due to the complexity of the production process, which may be marked by poor compatibility of surfactants with HFA and difficulties associated with sealant technologies. While this characteristic may present a barrier to entry for some companies, Adamis believes that it presents an opportunity for the Company, particularly given its partnership with an established manufacturer, Beximco.



Market Opportunities

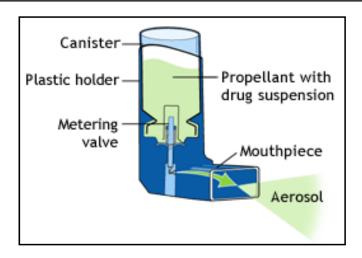
During 2010, there were an estimated 150 million cases of allergic rhinitis among adults, nearly half of which occurred in the U.S. (Source: The Datamonitor Group's *Epidemiology: Allergic Rhinitis - Allergic rhinitis is highly prevalent yet significantly under-diagnosed*, April 5, 2011). However, the rate of diagnosis in the U.S. is only approximately 31% for allergic rhinitis, suggesting a considerably greater number of cases that are presently going untreated. Datamonitor's research forecasts an increase in allergic rhinitis prevalence, with roughly 157 million adults and 31 million children affected by 2020.

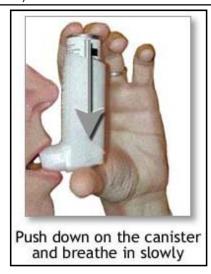
Adamis estimates that the market for seasonal and perennial allergic rhinitis products may be valued at approximately \$2.5 billion. In addition to nasal corticosteroid sprays, non-steroid treatment options for allergic rhinitis include a nasal wash to remove mucus, antihistamines such as Claritin® from Schering-Plough HealthCare Products Inc. and Zyrtec® from McNEIL-PPC, Inc. (a subsidiary of Johnson & Johnson [JNJ-NYSE]), decongestants, allergy shots, and prescription medicines such as Merck's Singulair®.

Respiratory and Pressurized Metered-Dose Inhalers (pMDIs)

The Company's pipeline further includes respiratory and pressurized metered-dose inhalers (pMDIs) for asthma and COPD. Depicted in Figure 3, a pMDI is an inhaler that delivers a specific amount of aerosolized medicine directly to the lungs as the patient inhales. These devices are commonly used in the treatment of asthma, COPD, and other respiratory diseases. This program is progressing similarly to Adamis' inhaled nasal steroid program described on page 18. The Company is utilizing known and accepted medicines, which are combined with HFA, to produce pMDIs. Adamis is partnered with Beximco for the production of asthma and COPD inhaled HFA therapeutics, which are expected to be offered for sale by Adamis in the U.S. Beximco currently manufactures these products for sale in markets outside the U.S.

Figure 3
METERED-DOSE INHALER (MDI)





Sources: the Asthma Society of Canada and A.D.A.M., Inc.



CONTRACEPTION

Savvy® (C31G)

Adamis Laboratories' pipeline includes a contraceptive gel candidate called Savvy[®], which contains the spermicide C31G. The Company believes C31G can be positioned as an alternative to the commonly used U.S. spermicide, nonoxynol-9 (N-9). N-9 is an active ingredient in U.S. spermicides, and can be found in gels, films, creams, foams, suppositories, or tablets. However, while prevalent, N-9 has been linked in some studies to allergic or other irritant reactions. Based on research to date, C31G (which does not contain N-9) may offer improvements in tolerability for women seeking a non-hormonal method of contraception.

Since the focus of Adamis' specialty pharmaceuticals business is not on contraception, the Company is evaluating outside opportunities for Savvy[®], which could entail outlicensing the C31G program to organizations that have a focus on contraception.

Phase III Clinical Study Results

A Phase III clinical trial of Savvy[®] was completed successfully in December 2010. This trial met its primary endpoint of confirming that the spermicidal component of Savvy[®], C31G, was non-inferior to Conceptrol[®], a commercially available vaginal contraceptive that contains N-9.

In the comparison trial of C31G and N-9, investigators noted that both products appeared effective and well tolerated, although C31G was associated with a lower number of drug-related side effects than N-9. No serious adverse events were reported with C31G, and side effects were generally mild. In comparison to the N-9 patient group, fewer women in the C31G group discontinued the study due to side effects. Altogether, researchers found that C31G was not inferior in contraceptive efficacy to Conceptrol® and was well tolerated with a high degree of acceptability in women who completed the study.

The study was conducted at 14 U.S. locations by the Eunice Kennedy Shriver National Institute of Child Health and Human Development ([NICHD] part of the National Institutes of Health [NIH]). It was a randomized, double-masked, controlled comparator study. A full account of the results of this trial is published in *Obstetrics and Gynecology* (volume 116, pages 1265-1273, December 2010).

Prior Studies

Past studies of C31G have assessed the candidate's safety, acceptability, tolerability, and efficacy. Results have supported C31G's safety profile and shown that the spermicide prevents sperm from penetrating mid-cycle mucus without causing penile irritation. In addition, C31G has also previously been studied in two Phase III clinical trials in Ghana and Nigeria. These trials were supported by Family Health International and the U.S. Agency for International Development, with the objective of determining whether C31G was safe and effective for reducing women's risk of acquiring a sexually transmitted HIV infection. These studies did not present any safety concerns; however, an independent Data Monitoring Committee found that there was a lack of statistical significance between C31G gel and the placebo gel in interim data. This may have been due to all participants receiving risk reduction counseling and condoms. A lower than expected rate of HIV seroconversion in these trials made it unlikely that the number of events required to evaluate the effect of Savvy® on HIV could be reached, even if the trials were continued. Thus, these studies were discontinued in 2005 and 2006, respectively.



Biotechnology

Adamis Therapeutics is the Company's biotechnology unit. By capitalizing on advancements in immunology, molecular biology, and gene therapy, Adamis Therapeutics is focused on the development of innovative products and vaccines for oncology, immunology, and infectious diseases. The Company's programs includes a therapeutic vaccine for prostate cancer that may have additional uses treating many other forms of cancer as well as viral diseases, such as chronic hepatitis, influenza, and human papilloma virus (HPV). In addition, Adamis Therapeutics is working to advance several novel small molecule compounds into clinical development for prostate cancer, as detailed on pages 26-30.

PROSTATE CANCER

Adamis seeks to address unmet needs within the prostate cancer market in areas that it believes lack effective and well-tolerated treatments for many patients. Prostate cancer is the second most common form of male cancer in the U.S. It affects roughly one in six men. When diagnosed in its early stages, prostate cancer can have a high rate of survival. As noted in Table 5, nearly 100% of men whose cancer is caught while it is contained entirely within the prostate gland are still alive at five years. Approximately 90% of cases are identified at either the local or regional stage, indicating that the cancer may have spread to nearby lymph nodes but has not reached other areas of the body.

Table 5 FIVE-YEAR RELATIVE SURVIVAL BY STAGE AT TIME OF DIAGNOSIS

Stage	5-year Relative Survival
Local	100%
Regional	100%
Distant	31%
Source: the American Ca	ncer Society 2010.

For the 10% of men whose prostate cancer is not diagnosed until a late stage, the five-year relative survival rate decreases drastically. Treatment for this cancer depends on multiple factors, including tumor size, location, and amount of spreading, and patient age, life expectancy, and risk of recurrence after treatment. Following a primary therapy (e.g., surgery or radiation), prostate cancer recurs in roughly 20% to 30% of men. After surgery alone, data from long-term studies has shown that cancer returns in 30% to 40% of men (Source: the University of Texas Health Science Center at San Antonio, January 23, 2009).

Hormone therapy is routinely employed to treat prostate cancer. It prevents the body from producing male hormones known to aid growth of cancer cells. Hormone treatments are used to shrink early stage tumors before radiation or surgery and to slow the growth of remaining cancer cells after primary treatment. They are also most often used in advanced prostate cancer patients to shrink and slow the growth of tumors. Prostate cancer that is being effectively managed by a hormone therapy is known as hormone-dependent, whereas prostate cancer that continues growing and spreading despite treatment is known as hormone-refractory or castrate-resistant. Adamis' TeloB-VAX treatment vaccine has been studied in a Phase I clinical study for patients with castrate-resistant prostate cancer.

Need for Improved Treatment Options in Castrate-Resistant Prostate Cancer

There are few treatments currently available for men with castrate-resistant prostate cancer. Existing therapies are unable to ensure a cure and thus are targeted to help control or slow tumor growth with the objective of prolonging patient survival and minimizing symptoms. As well, treatments may be associated with severe side effects that lead patients to opt out of certain therapies because the risks outweigh the potential benefits of treatment (Source: Prostate Conditions Education Council).



Dendreon's Provenge[®] (sipuleucel-T) immunotherapy became the first approved therapeutic prostate cancer vaccine in the U.S. in April 2010. Similar to Adamis' TeloB-VAX candidate, Provenge[®] is a cell-based vaccine designed to stimulate the immune system against prostate cancer. However, whereas Provenge[®] is believed to employ the body's dendritic cells, the TeloB-VAX technology capitalizes on the body's B-cells to produce and present telomerase peptides to T-cells of the immune system (as detailed on pages 24-25). To date, Provenge[®] remains the only approved prostate cancer vaccine, although it has served to validate the effectiveness of using an immunotherapy approach against this cancer type.

Patients with hormone-refractory prostate cancer may also receive a secondary hormone therapy (e.g., androgen deprivation therapy [ADT] following surgery) or chemotherapy, such as sanofi-aventis SA's (SNY-NYSE) Taxotere® (docetaxel) or Jevtana® (cabazitaxel) injection. Approved for use in 2004, Taxotere® was the first therapy for hormone-refractory prostate cancer to extend the life of patients. Jevtana® (cabazitaxel) injection is administered with prednisone in hormone-refractory prostate cancer that has spread after treatment with docetaxel or other medicines. Jevtana® was approved to treat advanced prostate cancer in the U.S. in June 2010 and received approval in the EU in March 2011.

In April 2011, the FDA approved another option for men with metastatic castration-resistant prostate cancer who have received prior chemotherapy containing docetaxel. This product, Zytiga™ (abiraterone acetate), is a daily, oral medication for use in combination with prednisone. Zytiga™ is supplied by Centocor Ortho Biotech Inc., a Johnson & Johnson company. It works by inhibiting the CYP17 enzyme complex required for androgen (hormone) production, and was shown in Phase III interim data to increase overall patient survival by over four months when used with prednisone.

Side Effects and Costs of Treatment

Side effects of Provenge[®] include chills, fatigue, fever, back pain, nausea, joint ache, and headache. The cost for a full treatment of three infusions with Provenge[®] is \$93,000 (as listed in Table 6). Dendreon plans to submit a Marketing Authorization Application (MAA) to the European Medicines Agency in 2011 or 2012 to enter European markets.

Side effects of Taxotere[®] include nausea, hair loss, bone marrow suppression, fluid retention, and neuropathy. Despite only adding 10 weeks of survival, Taxotere[®] therapy is estimated to cost roughly \$3,000 per cycle, with an average of six cycles of treatment for a total of \$18,000 (Source: Datamonitor, April 30, 2010). When the costs of extra supportive care are factored in, Taxotere[®] could cost up to \$60,000 per patient (Source: Xconomy, Inc., April 29, 2010).

In a Phase III trial of 755 patients who had failed prior docetaxel chemotherapy, treatment with Jevtana® was associated with side effects including diarrhea, fatigue, hair loss, pain, and neuropathy, among others, leading roughly 18% of patients to discontinue Jevtana® treatment (Source: sanofi-aventis, June 2010). Leerink Swann LLC, an independent equity research and investment banking firm, has reported a price assumption of \$5,000 per cycle for Jevtana®, with each patient receiving four cycles (Source: *The Pink Sheet Daily*, an Elsevier Business Intelligence Publication, June 21, 2010).

In the pivotal Phase III study of Zytiga[™], patients reported a number of adverse reactions, with some of the most common (≥ 5%) including joint and muscle discomfort, potassium deficiency, edema, urinary tract infection, cough, hypertension, and upper respiratory tract infection (Source: Johnson & Johnson, April 28, 2011). Zytiga[™] is priced at approximately \$5,000 a month (Source: *New York Times*, June 27, 2011). An average treatment regimen could last eight months for total therapy costs of up to \$40,000.

ESTIMATED COSTS OF CURRENT PROSTATE CANCER TREATMENTS		
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Despite the risks and costs of existing late-stage prostate cancer treatments, these therapies have only demonstrated a few months of extended patient survival, as summarized in Table 7. Adamis' prostate cancer business includes the development of a prostate cancer vaccine technology, TeloB-VAX, as well as small molecules (APC-100, APC-200, and APC-300) that may represent improved therapeutic options for patients. Clinical trials for APC-100 have been initiated, and in preparation for additional clinical trials, manufacturing has already begun for APC-200 and TeloB-VAX.

Table 7
OVERVIEW OF HORMONE-REFRACTORY PROSTATE CANCER THERAPIES

	Approved Therapies				
Therapy	Form	Indication	Key Data		
Provenge [®] (sipuleucel-T)	Infusion	Asymptomatic or minimally symptomatic metastatic hormone-refractory prostate cancer	Increased median survival 4.1 months versus placebo (non-activated autologous peripheral blood mononuclear cells)		
			Improved 3-year survival 38% versus placebo		
Taxotere [®] (docetaxel)	Injection	Hormone-refractory metastatic prostate cancer in combination with prednisone	Taxotere® and prednisone therapy increased median survival by 2.5 months versus mitoxantrone/prednisone therapy		
Jevtana [®] (cabazitaxel)	Injection	Hormone-refractory metastatic prostate cancer that has failed prior therapy with docetaxel or other anticancer medicines	Increased survival 2.4 months versus mitoxantrone/prednisone therapy		
Zytiga™ (abiraterone acetate)	Oral	Metastatic hormone-resistant prostate cancer with prednisone and after chemotherapy with docetaxel	Abiraterone and prednisone increased median overall survival 4.6 months versus prednisone and placebo		

Sources: Crystal Research Associates, LLC, Dendreon Corp., and sanofi-aventis SA.

Market Opportunities

The global market for cancer therapies was valued at \$50 billion in 2009 (Source: Business Insights Ltd's *The Cancer Market Outlook to 2015*, August 2010). As part of this market, global sales of prostate cancer therapeutics are forecast to reach \$4.8 billion by 2015, fueled by an aging world population combined with an increased incidence of prostate cancer in men over age 60 (Source: Global Industry Analysts, Inc.'s *Prostate Cancer Therapeutics: A Global Strategic Business Report*, April 2009). In the U.S., over two million men live with prostate cancer. There are an estimated 217,000 new cases diagnosed annually and 32,000 related deaths (Source: the American Cancer Society).

During 2010, prostate cancer represented one of the largest therapeutic areas in the active immunotherapy market (Source: MD Becker Partners LLC's *Cancer Vaccine Therapies: Failures and Future Opportunities*, April 2010). For example, Dendreon reported 2010 revenues of \$48 million for Provenge® (Source: Dendreon's Form 10-K filed March 1, 2011).

TELOB-VAX CANCER TREATMENT VACCINE

In April 2011, Adamis acquired a cancer vaccine technology from the University of California that forms the basis of the TeloB-VAX prostate cancer candidate. The technology underlying TeloB-VAX was originally developed by Dr. Maurizio Zanetti, a professor of medicine at the University of California, San Diego (UCSD). This technology is patented and Adamis has licensed the rights to it and a complementary patent from both the University of California and the Dana-Farber/Harvard Cancer Center, as summarized under Intellectual Property on pages 8-9.



Research on this cancer treatment vaccine technology to date has demonstrated that it is able to induce a potent cellular immune response. Specifically, in a Phase I clinical study of the telomerase vaccine (described on page 25), researchers showed that the candidate had a favorable safety profile and was able to stimulate an immune response by inducing T-cells that killed prostate cancer cells. Going forward, Adamis intends to file an IND with the FDA for further clinical development of TeloB-VAX.

Broad Therapeutic Potential

TeloB-VAX is a novel cell-based cancer vaccine that is designed to generate an immune response against telomerase reverse transcriptase (TRT), a component of the cellular telomerase complex. Telomerase is an enzyme that has been found to be overexpressed (increased) in approximately 85% of all cancers (i.e., a "tumor marker") (Source: Oncogene [2002] 21, 643-649).

As a tumor marker, telomerase has been the subject of considerable recent research. In 2009, the Nobel Prize in Physiology or Medicine was awarded to three scientists for their discoveries related to telomerase, which have led to further research identifying a link between increased telomerase activity and cancer cells. High cellular telomerase activity can have the effect of delaying normal aging and deterioration processes in cells, which may consequently enable the continued division and seemingly eternal life of cancer cells (Source: Nobelprize.org). As a result of these findings, several investigators have initiated studies aiming to confirm the theory that eradicating telomerase may treat cancer.

As telomerase may be increased in over 85% of all cancers, a telomerase-based cancer vaccine could potentially be employed in the treatment of a number of tumor types, including prostate, breast, lung, and colon cancer. In addition, telomerase has been found to be necessary for self-renewal of **cancer stem cells** and **cancer cell progenitors**; thus, TeloB-VAX may have activity targeting specific cancer stem cells.

Accordingly, the Company intends to focus initially on prostate cancer and, in the future, progress to studies in lung, colon, and breast cancers, among others.

Mechanism of Action

Importantly, Adamis believes that this technology from UCSD and Dana-Farber, which the Company is initially developing for prostate cancer, is conceptually distinct from Dendreon's Provenge[®], a cell-based immunotherapy that has previously been suggested to use dendritic cells as vehicles to generate immunity against cancer. A dendritic cell is a rare and specialized type of white blood cell that captures antigens and presents them on the cell surface for recognition by other immune cells, which can seek out and destroy the target antigens.

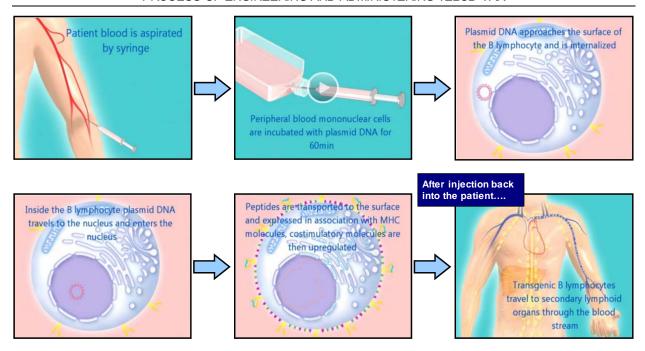
In TeloB-VAX treatment, patients' B-cells serve as antigen-producing and antigen-presenting cells. The B-cells present telomerase peptides to T-cells, which in turn, are activated and specifically recognize and kill tumor cells that are overexpressing telomerase. Figure 4 (page 25) illustrates the process of engineering and administering TeloB-VAX, followed by a summary of the process.



Figure 4

Adamis Pharmaceuticals Corporation

PROCESS OF ENGINEERING AND ADMINISTERING TELOB-VAX



Source: Adamis Pharmaceuticals Corporation.

Patient blood is aspirated by a syringe; peripheral blood mononuclear cells isolated from the blood are then incubated with plasmid DNA for 60 minutes to induce transgenesis; and antigen (TERT-derived peptide) expression takes place thereafter. TERT peptides are transported to the cell surface and are presented in association with major histocompatibility complex (MHC) molecules. At the completion of the procedure, transgenic B-lymphocytes are injected intravenously into patients where they travel to secondary lymphoid organs, such as the spleen or lymph nodes. In the secondary lymphoid organs, the TERT peptide-expressing B-cells encounter and interact with precursor T-cells, leading to the generation of an immune response that ultimately initiates the clonal expansion of T-cells. This mounts a specific immune response against tumor cells expressing TERT, destroying the cancer cells in the patient.

Previous Phase I Clinical Trial

TeloB-VAX has been studied in a Phase I clinical trial for castrate-resistant prostate cancer conducted at UCSD. In this Phase I study, the vaccine was found to be safe and non-toxic. It was also shown to be immunogenic, a favorable outcome, as TeloB-VAX elicited an immune response that killed prostate cancer cells. The treatment induced a specific **CD8** (cytotoxic or killer) T-cell response, and T-cells induced post-vaccination were shown to specifically attack prostate cancer cells. In preparation for continuing the clinical development of TeloB-VAX in prostate cancer, Adamis has contracted for the manufacture of additional plasmid.

Potential Competitive Advantages

Based on research performed to date at UCSD and through the Dana-Farber Cancer Institute, Adamis believes that the TeloB-VAX therapy may offer several benefits. Table 8 (page 26) lists potential competitive advantages.



Table 8

Adamis Pharmaceuticals Corporation

POSSIBLE ADVANTAGES TO THE TELOB-VAX CANCER TREATMENT VACCINE

- Prolonged antigen presentation by B-cells of 5 days versus only 12 hours with dendritic cells
- Novel, patented platform using a common tumor marker that is increased in approximately 85% of all tumors
- May be applicable to a broad range of tumor types as well as the cancer stem cell
- Begins inducing an immune response after a single injection
- Does not require complicated culture procedures
- Entails fewer steps and lower manufacturing costs

Source: Adamis Pharmaceuticals Corporation.

SMALL MOLECULES TO TREAT PROSTATE CANCER

Adamis' three small molecules for prostate cancer—APC-100, APC-200, and APC-300—were acquired by the Company during 2010 from Colby Pharmaceutical Company (www.colbypharma.com). Adamis and Colby initially entered into an acquisition agreement for exclusive licenses to the three compounds in February 2010. APC-300 was acquired by Adamis as part of this transaction. The acquisition was completed in October 2010 when the Company also obtained exclusive rights to APC-100 and APC-200.

To date, more than \$18 million in government funding has been allocated for the development of these compounds. Funding sources have included the Prostate Cancer Foundation (www.pcf.org), the Department of Defense's Congressionally Directed Medical Research Programs' (CDMRP) Prostate Cancer Research Program (PCRP), and National Cancer Institute (NCI) grants and contracts. As well, patents have been issued in the U.S. and in certain foreign markets, with further applications in progress (as listed in Table 1 [pages 8-9]).

Adamis initiated a Phase I/IIa clinical trial of APC-100 in 2011. APC-200 is in late preclinical testing and an IND is scheduled to be filed in the first quarter 2012. APC-300 is in preclinical evaluation.

APC-100

Total funding received for APC-100 has been approximately \$8 million. In 2006, APC-100 was part of the NCI's Rapid Access to Preventive Intervention Development (RAPID) program, which entailed a multiyear, multimillion dollar award for anticancer products. The candidate received over \$4.5 million in funding under the RAPID program as an oral therapeutic for castrate-sensitive and castrate-resistant prostate cancer. Today, the RAPID program has been replaced by the PREVENT Cancer Preclinical Drug Development Program, an NCI-supported pipeline for new cancer prevention agents and interventions (Source: NCI).

APC-100 is continuing to be evaluated as an oral medication for prostate cancer patients. Preclinical studies have been conducted on the candidate, which have shown that APC-100 may have greater therapeutic activity than currently available products in its class. During summer 2011, Adamis began clinical testing of APC-100 in patients. Table 9 (page 27) summarizes attributes of APC-100's development program, followed by details of its mechanism of action, preclinical support, and Phase I/IIa clinical trial.



Table 9 Adamis Pharmaceuticals Corporation APC-100 SUMMARY

- Subject of a 2006 NCI Rapid Award
- Binds androgen receptor and is believed to be a potent anti-androgenic, anti-inflammatory, and signal transduction inhibitor
- Decreases prostate-specific antigen (PSA) production
- Studies to date support APC-100's ability to increase time to tumor progression and survival
- Preclinical studies in mouse prostate cancer tumor models found that APC-100 was more efficacious than the marketed standard of care
- Demonstrated to be versatile and stable with a favorable safety profile and low toxicity
- Multiple delivery options: oral, injectable, or implantable
- Phase I/IIa clinical trial in progress
- Issued and pending global intellectual property protection

Source: Adamis Pharmaceuticals Corporation.

Mechanism of Action

Originally developed at the University of Wisconsin, APC-100 is considered to be an anti-androgenic and anti-inflammatory signal transduction inhibitor drug. Androgens are male hormones, including testosterone, that fuel tumor growth in prostate cancer. Chronic inflammation is also known to promote tumor growth and resistance to hormone treatment. Blocking androgen and reducing inflammatory processes may then offer a method for slowing the growth of prostate tumors. To this extent, APC-100 binds to the androgen receptor and acts as an androgen antagonist. This candidate has been shown to exhibit multiple mechanisms of action as both an inhibitor of androgen signaling pathways and by functioning as a potent anti-inflammatory **oxidative stress** modulator.

APC-100's role in modulating oxidative stress includes reducing the reactive oxygen species (ROS) in prostate cancer cells. In normal, healthy cells, excess ROS are deactivated by an antioxidant defense system, which is a group of protective agents that regulate oxidative reactions. In addition to the well-known antioxidants, vitamins C and E, this defense system also uses a variety of enzymes to minimize and repair free radical-induced damage. When there are more free radicals and ROS than the body's antioxidant defense system can neutralize, oxidative stress occurs. This stress on vital molecules triggers not only harmful inflammatory responses and cell death but also DNA mutagenesis in that free radicals and ROS attack DNA, lipids, proteins, and other cell components. They are believed to accelerate the progression of cancer, cardiovascular disease, and age-related diseases, including cataracts, arthritis, Alzheimer's disease, and diabetes.

Preclinical Support

APC-100 has shown a favorable pharmacological and safety profile in mice, rats, and dogs. Preclinical research on APC-100 was conducted by Dr. George Wilding (professor, Comprehensive Cancer Center) and his team at the University of Wisconsin Carbone Cancer Center.

Investigators have studied APC-100 in a **transgenic adenocarcinoma of the mouse prostate (TRAMP) model**, which is a preclinical mouse model that closely mirrors the pathogenesis of human prostate cancer. Through these studies, investigators identified a benefit to APC-100 treatment of prostate cancer versus treatment with the marketed standard of care. Adamis reports that whereas APC-100 was efficacious in this model, the standard of care did not show efficacy.



Collectively, Adamis reports that the preclinical results demonstrate that APC-100 increases the time to tumor progression, increases survival, and induces a decrease in **PSA** production. The compound has shown low toxicity and is not associated with signals accompanied with pro-estrogenic, feminizing side effects. As well, APC-100 is characterized by a high stability of its active ingredient. Adamis believes that patients with recurring prostate cancer could benefit from a non-toxic, orally available, potent therapeutic, such as APC-100.

Ongoing Phase I/IIa Clinical Trial

Adamis has initiated a Phase I/IIa study of the compound in castrate-resistant prostate cancer. Trial locations are set to include the University of Wisconsin Carbone Cancer Center and the Wayne State University Karmanos Cancer Institute, both of which belong to the Prostate Cancer Clinical Trials Consortium (PCCTC). The PCCTC is a 13-member clinical research group sponsored by the Prostate Cancer Foundation and the Department of Defense's Prostate Cancer Research Program (PCRP). From this study, Adamis expects to gain clinical data on APC-100's toxicity and biochemical, radiographic, and clinical responses by monitoring PSA levels, performing bone scans, and/or CT imaging. These measurements may be prognostic in determining patient outcome.

APC-200

In 2007, \$5 million was awarded for APC-200 in castrate-sensitive and castrate-resistant prostate cancer under the NCI's RAPID program. In order to file an IND with the FDA for the start of APC-200's clinical testing, Adamis must compile a certain amount of preclinical data. This IND-enabling data is over 90% complete and the Company anticipates having the data by the first quarter 2012, with an IND for APC-200 scheduled for submission during the first quarter 2012. Accordingly, manufacturing has begun for APC-200, which Adamis maintains is straight forward and cost effective.

APC-200 is a small molecule formulation that has potential for development as an oral, injected, or implanted medicine. The initial development of APC-200 is targeted for patients with castrate-resistant prostate cancer. However, APC-200 has the potential to be beneficial to patients in combination with ADT, or where ADT has not been approved or is not effective or tolerated. ADT is a type of hormone therapy used to reduce production of androgen in men with prostate cancer. Side effects of hormone therapy can include reduced or absent libido, impotence, hot flashes, breast tenderness and growth of breast tissue, osteoporosis, anemia, decreased mental acuity, loss of muscle mass, weight gain, fatigue, increased cholesterol, and depression (Source: the American Cancer Society).

APC-200 appears to inhibit ROS formation in prostate cancer cells, thereby helping to block inflammation and androgen-induced oxidative stress. Animal studies have documented the candidate's ability to inhibit chronic inflammation. Preclinical studies (including the TRAMP mouse model) have further found APC-200 to significantly delay prostate cancer progression and to increase survival among diseased animals. The candidate is thought to have a favorable safety profile and is not associated with signals that normally occur with pro-estrogenic, feminizing side effects. Table 10 summarizes several of APC-200's attributes.

Table 10 Adamis Pharmaceuticals Corporation APC-200 SUMMARY

- Subject of a 2007 NCI Rapid Award
- Found to significantly delay prostate cancer progression and death in preclinical mouse models
- May be a preferred candidate in patients where Androgen Deprivation Therapy (ADT) is not approved or appropriate
- Studies to date have shown that APC-200 is versatile and stable with a favorable safety profile and low toxicity
- Multiple delivery options: oral, injectable, or implantable
- Potential IND submission scheduled for the first quarter 2012

Source: Adamis Pharmaceuticals Corporation.



APC-300

Scientific research is increasingly indicating that the androgen receptor has a central role in both androgen-dependent and castrate-resistant prostate cancer. Therefore, Adamis believes that it is important to identify inhibitors of androgen receptor signaling that can act independent of hormonal status. These types of inhibitors could be key to the treatment of prostate cancer and thereby prevent or delay androgen-dependent prostate cancer from progressing to castrate-resistant prostate cancer. Based on research to date, the Company believes that APC-300, an anti-inflammatory agent and signal transduction inhibitor, has the potential to be the molecule that functions independent of hormonal status.

Researchers have received more than \$6 million for development work on APC-300 as an oral treatment for castrate-sensitive and castrate-resistant prostate cancer. Current development efforts for APC-300 in prostate cancer is geared toward collecting toxicology information on APC-300 as part of the candidate's IND-enabling data. Preclinical studies to date have shown that the compound not only inhibits growth but also stimulates the death of human prostate cancer cells both in vitro and in vivo. The compound induces apoptosis of cancer cells while sparing normal cells. Adamis believes that APC-300 has low toxicity without producing pro-estrogenic, feminizing side effects. Table 11 summarizes attributes of the candidate's development program.

Table 11 Adamis Pharmaceuticals Corporation APC-300 SUMMARY

- Received over \$6 million in development funding
- Found in preclinical research to inhibit growth and kill both castrate-sensitive and castrate-resistant prostate cancer
- Reduces PSA levels and decreases protein expression of androgen receptor
- Targets solid cancer cells while sparing normal cells
- Studies to date have shown the compound to be versatile and stable with a favorable safety profile and low toxicity
- Multiple delivery options: oral, injectable, or implantable
- U.S. claims in prosecution (and relevant analogs) for worldwide intellectual property in progress

Source: Adamis Pharmaceuticals Corporation.

Shows Activity in Both Androgen-dependent and Castrate-resistant Prostate Cancer

In July 2011, Adamis announced that APC-300 significantly inhibits the growth of prostate cancer cells. A study published in *Clinical Cancer Research* (June 28, 2011) and authored by Dr. Mohammad Saleem and his associates from the Hormel Institute, University of Minnesota, and Mayo Clinic showed that APC-300 inhibits androgen receptor signaling and activation in both androgen-dependent and castrate-resistant prostate cancer.

To the Company's knowledge, agents that have the potential to combat prostate cancer under both conditions (androgen and non-androgen responsive environments) are rare. Accordingly, the results of this study are significant as they demonstrate that APC-300, while sparing normal cells, preferentially inhibits the growth and proliferation of heterogeneous prostate cancer cells representing differential androgen sensitivity and androgen receptor expression status. As well, researchers observed that APC-300 sensitized highly aggressive castrate-resistant prostate cancer cells to bicalutamide (a widely used and marketed anti-androgen therapy).

APC-300 was further shown to decrease messenger RNA and protein expression of PSA in androgen-dependent and castrate-resistant prostate cancer cells, which translated into APC-300 showing a decrease in secreted levels of PSA in a concentration-dependent manner and a decrease in the growth of prostate cancer cells in vitro and in vivo.



Data evidenced that APC-300 holds the potential to decrease the androgen receptor transcriptional activity of prostate cancer cells by blocking the androgen receptor occupancy on androgen receptor-responsive elements in target genes. Data further demonstrated that APC-300 had a significant effect on reducing the growth of androgen-dependent and castrate-resistant prostate cancer, as well as reducing PSA levels in the mouse tumor model. As a result, the Company anticipates that APC-300 may have significance in treating prostate cancer.

In addition to prostate cancer, APC-300 may have use against melanoma and pancreatic cancer among other tumor types. A summary of the candidate's pancreatic cancer potential is provided below.

Additional Indications: Pancreatic Cancer

In March 2011, Adamis announced that preclinical research completed by Dr. Hasan Mukhtar (the Helfaer Professor of Cancer Research, Dermatology) and his team at the University of Wisconsin-Madison demonstrated that by targeting the **Ras oncogene** APC-300 may significantly inhibit the growth of pancreatic cancer cells. Adamis reports that mutation of the Ras oncoprotein, which may be mutated in over 90% of pancreatic cancers, has previously been linked to a cellular resistance to apoptosis and the related pathogenesis of cancer.

A perceived advantage of APC-300 is its ability to intervene at more than one critical pathway in the pancreatic cancer cell process. When administered to human pancreatic cancer cells in preclinical studies, APC-300 treatment led to reduced expression of the Ras oncoprotein and appeared to modulate the protein expression of various signaling molecules involved in cancer cell growth. As well, the candidate showed to significantly reduce tumor growth (p < 0.01) in a mouse model of pancreatic cancer.

As a result, Adamis believes that preclinical results of the candidate thus far, when taken together, collectively show that APC-300 has induced apoptosis with the ultimate effect of inhibiting the growth of pancreatic cancer cells as well as leading to tumor cell death.



Competition

It is estimated that there are more than 600 specialty pharmaceuticals in the pipeline worldwide (Source: *The American Journal of Pharmacy Benefits* 2010; 2(6):371-380). These comprise candidates for a variety of indications, including those allergy and respiratory conditions targeted by Adamis. In addition, there are nearly 900 drug candidates in U.S. clinical trials or undergoing FDA approval for cancer indications, which includes approximately 80 drugs currently in clinical development for the treatment of prostate cancer alone (Source: Pharmaceutical Research and Manufacturers of America [PhRMA] 2011).

Described below and on pages 32-34 are products and product candidates that relate to indications targeted by Adamis' development programs, including anaphylaxis, allergies and asthma, and prostate cancer. The companies and products summarized below are not intended to be an exhaustive collection of potential competitors but rather an indication of the type of competition that Adamis may encounter as it seeks to commercialize its candidates.

EPINEPHRINE

Epinephrine is delivered in auto-injector, prefilled syringe, and solution (ampoule) formats. Auto-injectors, such as the widely used EpiPen[®], are a leading delivery method for epinephrine in an emergency setting and can be easily administered by a patient at the onset of anaphylaxis.

In addition to the auto-injector and prefilled devices summarized below and on page 32, several companies manufacture and market an epinephrine solution for injection sold in ampoule format. For example, Hospira, Inc. manufactures an epinephrine solution for injection, which is distributed by third parties including the McKesson Packaging Services business unit of McKesson Corporation (MCK-NYSE). In a medical setting, epinephrine solution can be administered intravenously or intracardially to treat various hypersensitivity reactions, for cardiac resuscitation, or as a regional anesthetic, among other uses. Epinephrine solution can also be administered as eye drops for various ophthalmologic uses (e.g., to facilitate conjunctival decongestion, control hemorrhage, or reduce intraocular pressure).

Dey Pharma, L.P.

EpiPen[®] and EpiPen[®] Jr. Auto-Injectors (0.15 mg/0.3 mg epinephrine)

EpiPen® (0.3 mg epinephrine) and EpiPen® Jr. (0.15 mg epinephrine) auto-injectors are used to inject epinephrine in the first-line treatment of anaphylaxis. Each product is available in a single or dual pack. To administer EpiPen® products, the patient removes a blue safety release cap and subsequently presses the tip into the outer thigh until it clicks, activating the auto-injector mechanism. As the patient releases pressure, a protective cover extends, covering the used needle. Meridian Medical Technologies, Inc., a subsidiary of King Pharmaceuticals (now part of Pfizer), holds the rights to the epinephrine auto-injector technology. Mylan Inc. holds the EpiPen® trademarks and the right to market the product. Mylan licensed the worldwide rights to its wholly owned subsidiary, Dey Pharma, L.P., which conducts the company's specialty pharmaceutical business. Sales of the EpiPen® auto-injector—which Mylan reports holds more than a 90% market share in the U.S. and worldwide—constitute a significant portion of Dey's revenues.

Shionogi Inc.

Twinject® Auto-injector (epinephrine injection, USP 1:1000)

The Twinject[®] auto-injector is used to treat severe allergic reactions and contains two doses of epinephrine in one device, addressing a small subset of the allergic population that experiences a biphasic reaction. Twinject[®] employs a thin 25-gauge needle and is available in 0.15 mg and 0.3 mg dosing strengths, which are prescribed based on patient weight. Twinject[®] includes a slim carrying case that protects the product from sunlight or from being crushed in transport. To administer epinephrine during anaphylaxis, patients remove a green safety cap on the Twinject[®] product and press the product into the thigh, triggering the auto-inject mechanism. If symptoms persist 10 minutes following the initial injection, a second dose can be administered by unscrewing a red cap, removing the syringe from the barrel, placing the needle into the thigh, and pressing the plunger down to inject the medicine. Twinject[®]



is FDA-approved and received a positive outcome to the Decentralized Procedure supporting European approval in mid-2010.

Adrenaclick® (epinephrine injection, USP) Auto-injector

Adrenaclick[®] is a single-dose auto-injector designed to deliver subcutaneous or intramuscular injections of epinephrine to patients experiencing a severe allergic reaction. To use Adrenaclick[®], patients remove two caps and press the tip of the device into the thigh to deliver a full dose of epinephrine. Adrenaclick[®] is available in single or dual packs and includes a case to protect the device. It is offered in 0.15 mg and 0.3 mg dosage strengths, which are prescribed depending on patient weight.

The Twinject[®] and Adrenaclick[®] auto-injectors are distributed by Shionogi Inc., the U.S.-based subsidiary of Shionogi & Co., Ltd. (4507-TYO). In 2010, Shionogi authorized Greenstone LLC, the generic pharmaceutical subsidiary of Pfizer, to market an unbranded version of the Adrenaclick[™] auto-injector. The generic product is manufactured by Greenstone and distributed by Physicians Total Care, Inc.

JHP Pharmaceuticals, LLC

Adrenalin[®] Chloride Solution (epinephrine injection, USP 1:1000)

Adrenalin[®] chloride solution can be used to deliver epinephrine via a subcutaneous or intramuscular injection. The solution can also be diluted for intracardial or intravenous administration, or added to an anesthetic spinal fluid mixture for delivery through the spinal column. Adrenalin[®] chloride solution is available in a 1 mL or 30 mL vial. Adrenalin[®] chloride solution is also available in a nasal solution that can be applied topically with a swab or as a drop or spray to provide nasal decongestant benefits. Adrenalin[®] chloride solution is manufactured and distributed by JHP Pharmaceuticals, LLC, a closely held specialty healthcare company headquartered in Parsippany, New Jersey.

Lincoln Medical Ltd

Anapen® (epinephrine injection) Auto-injector

Anapen[®] contains a prefilled syringe within an auto-injector to deliver adrenaline intramuscularly. To administer, patients remove several caps and then hold the Anapen[®] against the thigh while pressing a button to activate the auto-inject mechanism. There are three versions of Anapen[®]—Anapen[®] Junior 150, Anapen[®] 300, and Anapen[®] 500—which have different dosage strengths and are prescribed based on patient weight. Anapen[®] is manufactured and marketed by UK-based Lincoln Medical Ltd., a closely held company that works with more than 20 distributors to provide Anapen[®] to patients in Canada, Australia, New Zealand, the UK, France, Germany, Sweden, Ireland, and other European countries.

ALK-Abelló A/S

JEXT[®]

JEXT[®] is a prefilled pen containing adrenaline designed to treat severe allergies (anaphylaxis). JEXT[®] was approved in Europe in late 2010 to treat anaphylaxis. JEXT[®] is available in two dosage strengths, which are prescribed based on patient weight. JEXT[®] is a product of ALK-Abelló A/S, a global pharmaceutical company headquartered in Hørsholm, Denmark. ALK-Abelló intends to gradually launch JEXT[®] in Europe, with plans to expand into other regions.

ALLERGY/RESPIRATORY INHALED THERAPEUTICS

Research from the Datamonitor Group has identified at least 60 products in development for allergic rhinitis, for which Adamis intends to create a generic inhaled treatment (Source: Datamonitor's *R&D Trends: Allergic Rhinitis - Immunotherapy takes a rising share of the pipeline*, March 15, 2011). In addition, there are a number of marketed therapies delivered in a wide range of formats—inhaled, injected, orally, and others—for common allergy, asthma, and other respiratory conditions. Table 12 (page 33) summarizes a selection of such products that may be competitive to Adamis' initiatives.



Table 12
A SELECTION OF ALLERGY/RESPIRATORY THERAPEUTICS

	Marketed Products	
Company	Product	Indication(s)
Teva Pharmaceutical	ProAir® HFA (albuterol sulfate) Inhalation Aerosol	Asthma, EIB, COPD
Industries Ltd.	QVAR® (beclomethasone dipropionate HFA) Inhalation Aerosol	Asthma
GlaxoSmithKline plc	Veramyst® (fluticasone furoate) Nasal Spray	Rhinitis
	Flovent® HFA (fluticasone propionate) Inhalation Aerosol	Asthma, COPD
	Ventolin® HFA (albuterol sulfate) Inhalation Aerosol	Asthma, EIB
sanofi-aventis S.A.	Nasacort® AQ (triamcinolone acetonide) Nasal Spray	Allergic rhinitis
AstraZeneca PLC	Symbicort Turbuhaler® (budesonide/formoterol) Inhalation	Asthma, COPD
	Pulmicort Respules® (budesonide inhalation suspension)	Asthma
	Pulmicort Flexhaler® (budesonide inhalation powder)	Asthma
Merck & Co., Inc.	Asmanex® Twisthaler® (mometasone furoate) Inhalation Powder	Asthma
	Nasonex [®] (mometasone furoate monohydrate) Nasal Spray	Allergic rhinitis
	Proventil® HFA (albuterol sulfate) Inhalation Aerosol	Bronchospasm, EIB
Sunovion	Xopenex® (levalbuterol HCL) Inhalation Solution	Bronchospasm, asthma
Pharmaceuticals Inc.	Xopenex® HFA (levalbuterol tartrate) Inhalation Aerosol	Bronchospasm, asthma

Candidates In Development			
Company	Candidate	Potential Indication(s)	Status
Teva	QNAZE™ (beclomethasone diprop.) HFA	Allergic rhinitis	Phase III
GlaxoSmithKline plc	573719 and/or vilanterol (642444)	COPD	Phase III
	Relovair (vilanterol and 685698)	Asthma, COPD	Phase III
Merck & Co., Inc.	Zenhale	Asthma	Phase III
	SCH 900237, Navarixin and SCH527123	Allergy, COPD	Phase II
AstraZeneca PLC	AZD2423, AZD8683, AZD5423, AZD5069, AZD1981, AZD3199, MEDI-528, CAT-354, MEDI-563, and AZD8848	Asthma or COPD	Phase II
ISTA Pharmaceuticals	Bepotastine Nasal Spray	Allergic rhinitis	Phase II
Actelion Ltd	CRTH2 antagonist	Asthma and allergic rhinitis	Phase II

Sources: Product websites.

CANCER VACCINES

Dendreon Corp.

Provenge® (sipuleucel-T) is an autologous cellular immunotherapy based on dendritic cells that is used to treat metastatic prostate cancer when patients have few or no symptoms but no longer respond to hormone therapy. In April 2010, Provenge® became the first vaccine approved to treat prostate cancer by enhancing the body's immune response to cancer cells. In its pivotal Phase III IMPACT study, Provenge® increased median survival by 4.1 months and improved three-year survival by 38% versus placebo control. Provenge® has been listed as a category 1 recommendation for patients with castrate-resistant prostate cancer by the National Comprehensive Cancer Network. Dendreon plans to submit a Marketing Authorization Application (MAA) to the European Medicines Agency in 2011 or 2012 in order to enter European markets. Dendreon is headquartered in Seattle, Washington, and employs 1,630 individuals.

Geron Corporation

Geron's GRNVAC1 and GRNVAC2 vaccine candidates are designed to stimulate immune responses to tumor cells expressing telomerase using nucleic acids delivered to dendritic cells. Data from a Phase II trial with GRNVAC1 in acute myelogenous leukemia (AML) patients demonstrated that the candidate was safe and well tolerated. A positive immune response to telomerase after vaccination was detected in 55% of patients. GRNVAC2 is in the preclinical stage. Geron is also developing imetelstat (GRN163L), a Phase II telomerase inhibitor drug that uses oligonucleotides to target the active site of telomerase. Geron sponsored six Phase I trials to assess the safety, tolerability, pharmacokinetics, and pharmacodynamics of imetelstat as a monotherapy or in combination with other therapies in patients with solid tumors,



multiple myeloma, non-small cell lung cancer, and breast cancer, among other diseases. The Company is now evaluating imetelstat in several Phase II clinical trials in various cancer types.

In 2005, Merck entered into a global agreement for the development and commercialization of cancer vaccines targeting telomerase by methods other than dendritic cell delivery. After initiating a Phase I trial of a non-dendritic cell-based cancer vaccine candidate targeting telomerase called V934/V935 in patients with solid tumors, Merck notified Geron of its plan to cease further development as part of reprioritizing its portfolio and not due to the data obtained through the trial. Geron has headquarters in Menlo Park, California, and employs 175 individuals.

Vical Inc.

Vical is developing infectious disease vaccines, an angiogenesis medication for peripheral arterial disease (PAD), and several cancer immunotherapies. Allovectin® is a Phase III DNA-based immunotherapy for local and metastatic tumors that has received Orphan Drug and Fast Track designations in the U.S. A Phase III pivotal trial accepted by the FDA under a Special Protocol Assessment (SPA) is ongoing to evaluate the candidate versus current first-line chemotherapies in patients with metastatic melanoma. Vical's technology also includes a Phase I therapeutic vaccine encoding human telomerase reverse transcriptase in development by Merck under a licensing agreement. Vical has received \$2.5 million in milestone payments to date as part of the agreement. Vical has headquarters in San Diego, California. The company employs 114 individuals.

SMALL MOLECULES FOR PROSTATE CANCER

Centocor Ortho Biotech Inc.

Abiraterone acetate targets a specific protein that has a role in producing testosterone in the body. In doing so, the drug aims to inhibit production of testosterone, which is known to fuel prostate cancer. After a priority review by the FDA in April 2011, abiraterone was approved in combination with prednisone to treat metastatic, castration-resistant prostate cancer in men who have received prior chemotherapy with docetaxel. In a Phase III late-stage prostate cancer trial, combination therapy with abiraterone plus prednisone increased median overall survival by 4.6 months versus prednisone plus placebo. As well, significant differences were also reported for the trial's secondary endpoints: (1) PSA progression; (2) radiographic progression-free survival; and (3) PSA response rate. Centocor, a Johnson & Johnson company, markets abiraterone under the brand Zytiga™. Early clinical development of abiraterone was conducted by Cougar Biotechnology, Inc., which was acquired by Johnson & Johnson in mid-2009.

Medivation, Inc. and Astellas Pharma US, Inc.

Medivation and Astellas are co-developing MDV3100, a Phase III oral anti-androgen designed to treat early and advanced prostate cancer. In preclinical studies, MDV3100 was shown to better suppress the androgen receptor pathway versus bicalutamide, a widely used and marketed anti-androgen therapy. Medivation developed MDV3100 through Phase III, at which point the company partnered with Astellas for continued development and subsequent commercialization. Under the agreement announced in October 2009, the companies split U.S. development and commercialization costs and profits, while Astellas is responsible for costs outside of the U.S., paying Medivation royalties on non-U.S. sales.

Medivation and Astellas are supporting a broad clinical program for MDV3100, with multiple ongoing trials. The companies have completed patient enrollment of a Phase I/II clinical trial evaluating MDV3100 in advanced prostate cancer patients. Interim results and long-term follow-up efficacy data have demonstrated that MDV3100 was associated with anti-tumor activity in patients who had become resistant to bicalutamide or other standard anti-androgen treatments. Medivation and Astellas are now enrolling a Phase II TERRAIN trial comparing MDV3100 with bicalutamide in patients who have progressed while on certain analogue therapy or following surgical castration. A Phase II trial evaluating MDV3100 as a monotherapy is currently enrolling hormone-naïve prostate cancer patients. As well, in a Phase III AFFIRM trial, the companies have completed patient enrollment of advanced prostate cancer patients who received prior docetaxel chemotherapy and are continuing enrollment for men with advanced prostate cancer who have not yet received chemotherapy. Medivation is headquartered in San Francisco, California, and employs roughly 100 individuals. Astellas is based in Tokyo, Japan, with over 15,000 consolidated employees.

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Milestones

Recent Milestones

- Acquired the TeloB-VAX cancer treatment vaccine technology from the Regents of the University of California and Dana-Farber/Harvard Cancer Center
- Contracted for the supply of additional plasmid in order to prepare for continued clinical development of TeloB-VAX
- Began clinical studies of APC-100 as a treatment of castrate-resistant prostate cancer
- Began manufacture of APC-200 in anticipation of filing an IND
- Successfully met the primary endpoint in a Phase III trial of Savvy[®] (C31G), demonstrating that C31G was non-inferior to an existing vaginal contraceptive product, Conceptrol[®]
- Entered into a manufacturing and development agreement with Beximco Pharmaceuticals Ltd. for the development and launch of allergy and asthma products in the U.S., for which regulatory and sales activities are likely to be undertaken by Adamis
- Completed a \$10 million Common Stock Purchase Agreement in November 2010

Potential Milestones

Over the next 12 to 24 months, Adamis seeks to accomplish several key corporate objectives that could lead to the Company possessing a marketed epinephrine product and two compounds for prostate cancer in clinical development in 2012.

- File a Form 505(b)(2) New Drug Application (NDA) with the FDA for a prefilled epinephrine syringe
- File an IND for the telomerase vaccine for prostate cancer
- File an IND for APC-200
- Outlicense Savvy® (C31G) product
- Complete manufacturing of two specialty pharmaceutical products: one for treatment of asthma and COPD and one for the treatment of allergic rhinitis
- Initiate sales and marketing of three specialty pharmaceutical products
- Obtain a partner for at least one prostate program



Key Points to Consider

- Adamis is an emerging biopharmaceutical company creating new pharmaceutical and biotechnology treatment options for allergy, respiratory, oncology, immunology, and infectious diseases.
- Specialty pharmaceuticals are a growing segment of the healthcare industry, for which the market could exceed \$160 billion by 2013. Generic products alone represent approximately \$77 billion in sales, which may increase significantly as branded pharmaceuticals continue to lose patent protection over the next several years and governments worldwide seek to combat rising healthcare costs.
- Adamis' specialty pharmaceuticals pipeline includes a single-dose epinephrine injection in a prefilled syringe and inhaled therapeutics to treat asthma, allergic rhinitis, and COPD.
- In December 2010, Adamis and Bangladesh conglomerate, Beximco, entered into a strategic agreement for manufacturing, supply, and product development. The companies intend to introduce a number of separate allergy and asthma products into the U.S. over the next few years.
- Adamis' pipeline also includes a C31G contraceptive gel that successfully completed a Phase III clinical trial in December 2010. Based on the clinical data, Adamis believes that it can outlicense or partner the contraceptive product, called Savvy[®].
- Because epinephrine can be difficult to manufacture, Adamis believes there is a void in the market that is not being adequately fulfilled by generic pharmaceutical companies. Adamis' Epinephrine Injection PFS is designed to be a low-cost therapeutic alternative to existing branded epinephrine auto-injectors, which can exceed \$100 per dose.
- In April 2011, Adamis completed the acquisition of a novel vaccine technology forming the basis for a prostate cancer vaccine, called TeloB-VAX. The technology was acquired from the University of California in addition to a complementary patent licensed from the Dana-Farber/Harvard Cancer Center.
 - As TeloB-VAX targets a common tumor marker (telomerase) believed to be overexpressed in 85% of cancers, this candidate may ultimately represent a therapeutic opportunity for the treatment of multiple tumor types and cancer stem cells. Adamis believes that telomerase may be as close to a "universal" tumor marker as is known today.
- Despite the risks and high costs of existing late-stage prostate cancer treatments, these therapies typically only demonstrate a few months of extended patient survival. In addition to TeloB-VAX, Adamis' oncology activities include the development of small molecules (APC-100, APC-200, and APC-300) that may further improve treatment options for prostate cancer patients.
- Global sales of prostate cancer therapies are forecast to reach \$4.8 billion by 2015, fueled by an aging world population combined with an increased incidence of prostate cancer in men over age 60.
- Through licenses with institutions and other third parties, Adamis holds issued or pending intellectual property worldwide. The Company partners with established manufacturers, such as Beximco and Catalent, for production of clinical and commercial material in compliance with regulatory standards.
- Adamis is led by individuals with expertise in biotechnology, immunology, medical microbiology, genetics, biochemistry, cancer management, and pharmaceutical research and development. Leadership comes from backgrounds with Citigroup Global Markets, Merrill Lynch, Merck, Cancer Treatment Centers of America, Boehringer Ingelheim, Cardion, and Novartis.
- At June 30, 2011, Adamis' cash position was \$191,223. During June and July 2011, the Company received \$1.1 million in milestone payments under a \$10 million Common Stock Purchase Agreement with UAE company, Eses Holdings.



Historical Financial Results

Tables 13, 14, and 15 (pages 38-40) provide a summary of Adamis' key historical financial statements—its Consolidated Statements of Operations, Balance Sheets, and Statements of Cash Flows for the Company's fiscal first quarter ended June 30, 2011. Adamis' fiscal year ends March 31.

Common Stock Purchase Agreement with Eses Holdings

In November 2010, Adamis entered into a definitive Common Stock Purchase Agreement with Eses Holdings, pursuant to which Eses agreed to invest \$10 million and acquire 40 million shares of Adamis' Common Stock at a purchase price of \$0.25 per share. As part of the investment, Adamis received \$5 million and issued 20,000,000 shares of Common Stock at closing.

The agreement provided for two subsequent closings of \$2.5 million each if certain milestones were achieved. The first set of milestones was achieved and under the agreement as amended, Adamis received \$550,000 of the milestone payment in June 2011 and another \$550,000 in July 2011, with a remaining balance owed to Adamis of \$1.4 million. Under the agreement, the outside date for achievement of the second set of milestones is December 31, 2011. The Company currently believes that it can achieve the milestone conditions relating to the second \$2.5 million milestone closing in advance of that date.

Table 13
Adamis Pharmaceuticals Corporation and Subsidiaries
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

	Three Months Ended			
		une 30, 2011 (Unaudited)	June 30, 2010 (Unaudited)	
REVENUE	\$	\$ —		_
COST OF GOODS SOLD				
Gross Margin				
SELLING, GENERAL, AND ADMINISTRATIVE EXPENSES RESEARCH AND DEVELOPMENT		582,184 630,661		989,091 —
Loss from Operations		(1,212,845)		(989,091)
OTHER (EXPENSE) Interest Expense		(27,507)		(322,218)
Net (Loss)	\$	(1,240,352)	\$	(1,311,309)
Basic and Diluted (Loss) Per Share:				
Basic and Diluted (Loss) Per Share	\$	(0.02)	\$	(0.04)
Basic and Diluted Weighted Average Shares Outstanding		82,305,523		29,804,516
Source: Adamis Pharmaceuticals Corporation.				



Table 14 Adamis Pharmaceuticals Corporation and Subsidiaries CONDENSED CONSOLIDATED BALANCE SHEETS

June 30				
ASSETS	(Unaudited)		(Unaudited) March	
CURRENT ASSETS	Φ.	404 000	Φ.	4 000 000
Cash Proposed Consulting Food and Other Current Assets	\$	191,223	\$	1,238,898
Prepaid Consulting Fees and Other Current Assets		231,333		294,710
Stock Subscriptions Receivable		65,000		
Total Current Assets		487,556		1,533,608
ASSETS FROM DISCONTINUED OPERATIONS		200,000		200,000
Total Assets	\$	687,556	\$	1,733,608
LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT)				
CURRENT LIABILITIES				
Accounts Payable	\$	1,265,673	\$	1,263,199
Accrued Other Expenses		444,737		484,407
Accrued Bonuses		101,436		101,436
Notes Payable		_		1,163,000
Notes Payable to Related Parties		101,232		101,232
Total Liabilities		1,913,078		3,113,274
COMMITMENTS AND CONTINGENCIES				
STOCKHOLDERS' EQUITY (DEFICIT)				
Preferred Stock – Par Value \$.0001; 10,000,000 Shares				
Authorized; Issued and Outstanding-None		_		_
Common Stock – Par Value \$.0001; 175,000,000 Shares				
Authorized; 93,112,147 and 86,818,532 Issued, 87,883, 959				
and 81,590,344 Outstanding, Respectively		9,311		8,682
Additional Paid-in Capital		25,877,785		24,483,918
Accumulated Deficit		(27,107,389)		(25,867,037)
Treasury Stock - 5,228,188 Shares		(5,229)		(5,229)
Total Stockholders' Equity (Deficit)	(1,225,522)			(1,379,666)
	\$	687,556	\$	1,733,608
Source: Adamis Pharmaceuticals Corporation.				



Table 15 Adamis Pharmaceuticals Corporation and Subsidiaries CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

	Three Months E 2011 (Unaudited)	Ended June 30, 2010 (Unaudited)		
CASH FLOWS FROM OPERATING ACTIVITIES				
Net Loss	\$ (1,240,352)	\$ (1,311,309)		
Adjustments to Reconcile Net Loss to Net				
Cash (Used in) Operating Activities:				
Depreciation Expense	_	5,783		
Common Stock issued in lieu of interest	620	_		
Vesting of Options for Compensation	25,875	_		
Amortization of Discounts	_	231,405		
Inventory Reserve Adjustment	_	(48,622)		
Amortization of Stock Issued for Services	72,708	95,000		
Sales Returns Reserve Adjustment	(33, 149)	158,703		
Change in Assets and Liabilities:				
(Increase) Decrease in:				
Accounts Receivable	_	5,555		
Inventory	_	50,209		
Prepaid Expenses and Other Current Assets	(24,331)	(20,241)		
Increase (Decrease) in:				
Accounts Payable	2,475	85,863		
Accrued Other Expenses	(6,521)	328,724		
Net Cash (Used in) Operating Activities	(1,202,675)	(418,930)		
CASH FLOWS FROM INVESTING ACTIVITIES				
Cash Received from Sale of Common Stock	500,000	225,000		
Net Cash Provided by Investing Activities from				
Continuing Operations	500,000	225,000		
Net Cash Provided by Investing Activities from				
Discontinued Operations	_	150,000		
Net Cash Provided by Investing Activities	500,000	375,000		
CASH FLOWS FROM FINANCING ACTIVITIES				
Repayment of Notes Payable	(345,000)			
Net Cash (Used in) Financing Activities	(345,000)			
Decrease in Cash	(1,047,675)	(43,930)		
Cash:				
Beginning	1,238,898	290,299		
Ending	\$ 191,223	\$ 246,369		
Source: Adamis Pharmaceuticals Corporation.				



Table 15 (continued) Adamis Pharmaceuticals Corporation and Subsidiaries CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

	hree Months I 2011 naudited)	Ended June 30, 2010 (Unaudited)	
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION Cash Paid for Interest	\$ 33,408	\$	75,373
SUPPLEMENTAL DISCLOSURE OF NON-CASH FINANCING AND INVESTING ACTIVITIES			
Discount on Note Payable	\$ 	\$	231,405
Stock Issued for Services	\$ _	\$	95,000
Note Payable Converted to Common Stock	\$ 818,000	\$	_
Common Stock issued in Lieu of Interest	\$ 620	\$	
Stock Subscription Receivable	\$ 50,000	\$	
Stock-Based Compensation Expense	\$ 25,875	\$	
Source: Adamis Pharmaceuticals Corporation.			



Risks

Some of the information in this Executive Informational Overview[®] (EIO[®]) relates to future events or future business and financial performance. Such statements can only be predictions and the actual events or results may differ from those discussed due to the risks described in Adamis' statements on Forms 10-K, 10-Q, and 8-K, as well as other forms filed from time to time. The content of this report with respect to Adamis has been compiled primarily from information available to the public released by Adamis through news releases, Annual Reports, and Securities and Exchange Commission (SEC) filings. Adamis is solely responsible for the accuracy of this information. Information as to other companies has been prepared from publicly available information and has not been independently verified by Adamis. Certain summaries of activities have been condensed to aid the reader in gaining a general understanding. For more complete information about Adamis, please refer to the Company's website at www.adamispharmaceuticals.com.

Investors should carefully consider the risks and information about Adamis' business described below. Investors should not interpret the order in which these considerations are presented as an indication of their relative importance. The risks and uncertainties described below are not the only risks that the Company faces. Additional risks and uncertainties not presently known to Adamis or that Adamis currently believes to be immaterial may also adversely affect its business. As well, the Company's Form 10-K filed on July 7, 2011, with the SEC presents a more detailed summary of Adamis' Risk Factors for investors to take into account. If any of the risks and uncertainties described below or described in the Form 10-K develops into actual events, the business, financial condition, and results of operations could be materially and adversely affected, and the trading price of the Company's shares could decline.

Auditors have expressed substantial doubt about Adamis' ability to continue as a going concern.

The Company's independent registered public accounting firm has included a "going concern" explanatory paragraph in its report on Adamis' financial statements for the years ended March 31, 2011 and 2010, indicating that the Company has incurred recurring losses from operations and has limited working capital to pursue business alternatives, and that these factors raise substantial doubt about its ability to continue as a going concern. Continued operations are dependent on Adamis' receipt of funding that an investor has agreed to provide pursuant to a Common Stock Purchase Agreement, or on its ability to complete other funding transactions. Such other transactions may not be available or may not be available on reasonable terms. Adamis expects negative cash flow from operations to continue for the foreseeable future, with the need to continue or expand development programs and to commercialize products once regulatory approvals have been obtained. The above conditions, as well as the circumstances described in detail in the Risk section of the Company's Form 10-K filed with the SEC on July 7, 2011, raise substantial doubt about Adamis' ability to continue as a going concern. Its financial statements do not include any adjustments that may result from the outcome of this uncertainty. Without additional funds from debt or equity financing, sales of assets, sales or out-licenses of intellectual property or technologies, or from a business combination or a similar transaction, the Company will exhaust its resources and will be unable to continue operations. If it cannot continue as a viable entity, stockholders would likely lose most or all of their investment.

Liquidity and Capital Resources

As of June 30, 2011, Adamis had cash and cash equivalents of approximately \$191,223, and an accumulated deficit of \$27,107,389. Adamis incurred net losses of approximately \$6,980,000 and \$6,707,000 for the years ended March 31, 2011 and 2010, respectively.

If the Purchaser under the June 2011 amended Common Stock Purchase Agreement (as described on page 37 of this report and further detailed in Note 1 to the Company's financial statements on its Form 10-Q filed with the SEC on August 15, 2011) makes the investments that it has agreed under the Purchase Agreement as amended, relating to the first milestone closing under the Purchase Agreement, and if Adamis achieves the second milestone conditions and receives funding as provided in the Purchase Agreement relating to the second milestones, then the Company believes that its cash and cash equivalents will likely be sufficient to fund operations at least through the fiscal year ending March



31, 2012, absent unexpected developments, although proceeding with the PFS Syringe product approval and commercialization efforts would require additional funding.

However, if Adamis does not obtain funding from other sources, it will be substantially dependent on receipt of the funds described above, and if it does not achieve the second milestone events or if the investor does not invest the amounts stated in the agreement, the Company's cash resources would rapidly be depleted and it would be required to materially reduce or cease operations.

Adamis is subject to the risks associated with early stage companies.

Even if development and marketing efforts are successful, substantial time may pass before significant revenues will be realized from product sales, and during this period Adamis may require additional funds. The availability of any required additional funding cannot be assured. Consequently, Adamis is subject to the risks associated with early stage companies, including the need for additional financings; the uncertainty of research and development efforts resulting in successful commercial products, as well as the marketing and customer acceptance of such products; unexpected issues with the FDA or other federal or state regulatory authorities; competition from larger organizations; reliance on the proprietary technology of others; dependence on key personnel; uncertain patent protection; and dependence on corporate partners and collaborators. To achieve successful operations, Adamis will require additional capital to continue research and development and marketing efforts. No assurance can be given as to the timing or ultimate success of obtaining future funding.

Additional financing will be required to support sales and marketing efforts relating to product development and marketing efforts for the Adamis Laboratories products, continued product research and development on the Company's cancer and vaccine technology, and to fund any product or company acquisition opportunities. Cash flow from the Adamis Laboratories operations are not expected to provide sufficient cash to fund Adamis' overall cash requirements for the foreseeable future. Adamis' future capital requirements will depend upon numerous factors, including the following:

- the progress and costs of development programs;
- the commercial success of new products that are introduced;
- patient recruitment and enrollment in future clinical trials;
- the scope, timing, and results of preclinical testing and clinical trials;
- the costs involved in seeking regulatory approvals for product candidates;
- the costs involved in filing and pursuing patent applications and enforcing patent claims;
- future regulatory actions by the FDA and other regulatory agencies;
- the establishment of collaborations and strategic alliances;
- the cost of manufacturing and commercialization activities;
- the results of operations;
- the cost, timing, and outcome of regulatory reviews;
- the rate of technological advances;
- ongoing determinations of the potential commercial success of products under development;
- the level of resources devoted to sales and marketing capabilities; and
- the activities of competitors.



To obtain additional capital when needed, Adamis will evaluate alternative financing sources, including, but not limited to, issuance of equity or debt securities, corporate alliances, joint ventures, and licensing agreements. There can be no assurance that funding will be available on favorable terms, if at all. There are no assurances that Adamis will be able to successfully develop its products under development or that products, if successfully developed, will generate revenues sufficient to earn a profit. If Adamis is unable to obtain additional capital, management may be required to explore alternatives to reduce cash used by operating activities, including the termination of development efforts that may appear to be promising to Adamis, the sale of certain assets, and the reduction in overall operating activities.

Legal Matters

In addition to the matters described below and on page 44, Adamis may become involved in or subject to routine litigation, claims, disputes, proceedings, and investigations in the ordinary course of business, which could have a material adverse effect on financial condition, cash flows, or results of operations. The litigation described in this section could divert management time and attention from the Company and could involve significant amounts of legal fees and other fees or expenses. An adverse outcome in any such litigation could have a material adverse effect on Adamis.

Cosmo Bioscience, Inc. et. al. v. Adamis Pharmaceuticals Corp. and Maurizio Zanetti

Cosmo Bioscience, Inc. et. al. v. Adamis Pharmaceuticals Corp. and Maurizio Zanetti was filed in San Diego Superior Court in May 2010 and was stayed in November 2010. Plaintiffs are affiliated Cosmo Bioscience entities who claim to have sublicensed certain patented technology from Eurogen BV, an entity wholly owned and controlled by Dr. Maurizio Zanetti. Plaintiffs claimed that Dr. Zanetti wrongfully terminated their license, and further that he improperly licensed the same technology to Adamis in violation of plaintiffs' exclusive license agreement. Plaintiffs asserted a single claim for declaratory relief seeking a declaration that the Cosmo sublicense was in full force and effect, and that the Adamis license is invalid. In a previous effort to assert claims with respect to the technology, one of the principals of Cosmo previously had claimed to be a co-inventor of the patents involved in the lawsuit—a claim that was rejected by a U.S. federal district court. On July 26, 2010, Dr. Zanetti filed a motion to compel arbitration on the ground that the license he signed with Cosmo specified that Italian courts and Italian law would govern the license. Also on that date, Adamis filed a motion to stay the litigation pending resolution of any Italian arbitration. Those motions were granted in favor of Dr. Zanetti and Adamis on November 22, 2010, and the Cosmo litigation now is stayed. Cosmo may seek arbitration in Italy. If it does, Adamis would likely not be a party to the arbitration because Adamis was not a party to the license agreement between Cosmo and Dr. Zanetti. If Cosmo seeks to arbitrate its claim in Italy, the findings of the arbitration would likely impact the Cosmo litigation. Even if the arbitration resulted in an outcome adverse to Adamis, Adamis believes that it has other defenses to plaintiffs' claim, although there can be no assurances that this would be the case.

In addition, Adamis, through its counsel, has notified the Cosmo entities that it has reason to believe that Cosmo is engaging in activities that violate or interfere with Adamis' rights to the technologies licensed to Adamis, and that any use of the technologies by Cosmo may be an unlawful infringement on the patents exclusively licensed to Adamis.

Curtis Leahy, et. al. v. Dennis J. Carlo, et al.

In May 2010, *Curtis Leahy, et. al. v. Dennis J. Carlo, et al.* was filed in San Diego Superior Court, and plaintiffs subsequently filed an amended complaint on June 18, 2010. The plaintiffs—Antaeus Capital Partners, Curtis Leahy, and David Amron—are Adamis shareholders, and they seek to represent a putative class of shareholders. The defendants named in the Complaint are Adamis, Dr. Dennis Carlo, Mr. David Marguglio, Mr. Robert Hopkins, and Mr. Richard Aloi, who are or have been officers and/or directors of the Company. Plaintiffs' first amended complaint alleged that defendants misrepresented and omitted material information in private placement memoranda distributed by Adamis in 2006 and 2008 regarding, among other things, Adamis' license rights with respect to certain patented anti-viral technology; this claim appears to be based in part on the allegations of the Cosmo plaintiffs in the *Cosmo* lawsuit described above. Based on these purported misrepresentations and omissions, plaintiffs asserted claims for violations of Sections 25401, 25501, and 25504 of the California Corporations Code, and claims for common law fraud and negligent misrepresentation on behalf of a putative class of



shareholders who purchased stock pursuant to either or both of Adamis' 2006 and 2008 Private Placement Memoranda. Plaintiffs sought damages amounting to the difference between the purchase price of their stock and the current share price, or the price at which they previously sold their stock.

Plaintiffs also alleged that defendants breached their fiduciary duties as directors and officers of Adamis with respect to certain corporate transactions, including the HVG transaction in 2007, the Cellegy merger in 2008, and the Gemini and G-Max financing transactions in fiscal 2010. Plaintiffs alleged that these transactions were not in the best interest of Adamis and did not achieve their stated objectives. Plaintiffs further alleged that the director defendants collected excessive compensation in fiscal years 2008 and 2009, and asserted that Adamis should have exercised its right to repurchase certain shares issued to defendants and other senior managers pursuant to the Stock Repurchase Agreements in 2008 rather than amend those agreements to extend the dates for meeting the applicable performance criteria. Based on these allegations, plaintiffs asserted claims for breach of fiduciary duty, unjust enrichment and constructive trust, declaratory relief, and injunctive relief. Believing that this complaint was without merit, defendants filed a demurrer and motion to strike. On October 22, 2010, in response to defendants' demurrer, the San Diego Superior Court issued an order dismissing all of the plaintiffs' claims other than the California Corporations Code claims related to Adamis' 2006 and 2008 private placement memorandums.

Plaintiffs filed a second amended complaint on November 30, 2010, re-asserting claims for violations of Sections 25401, 25501, and 25504 of the California Corporations Code, and claims for common law fraud and negligent misrepresentation on behalf of a putative class of shareholders who purchased stock pursuant to either or both of Adamis' 2006 and 2008 Private Placement Memoranda. Plaintiffs again seek damages amounting to the difference between the purchase price of their stock and the current share price, or the price at which they previously sold their stock. Plaintiffs also re-alleged their claim for breach of fiduciary duty and aiding and abetting breach of fiduciary duty, but agreed to dismiss this claim in its entirety during a meet and confer conference with counsel for defendants. The Company continues to believe that the second amended complaint is without merit, intends to defend against the remaining claims vigorously and may assert any available counterclaims. Defendants answered the second amended complaint on March 3, 2011.

On May 27, 2011, plaintiffs filed a motion for class certification. Defendants filed their brief opposing the motion on June 10, 2011. The hearing on plaintiffs' motion for class certification was held on June 24, 2011, and the court denied the plaintiffs' motion for class certification.

Agape World, Inc.

Agape World, Inc. is a company involved in an involuntary bankruptcy proceeding filed in 2009. Its principal, Nicholas Cosmo, was indicted and faces criminal trial on many counts of wire fraud and other claims, based on allegations that he operated a Ponzi scheme through Agape and other entities. More than one year before the date of Adamis' most recent Form 10-Q (February 15, 2011, in which these legal matters are presented), the bankruptcy trustee of Agape contacted Adamis by telephone, asserting that Agape World paid \$1 million to Adamis for 2 million shares of Common Stock of Adamis, but that the stock was issued not to Agape World, but instead to Mr. Cosmo, a principal of Agape World, and claiming that this constituted a fraudulent transfer. The Company believes that the trustee has recovered the stock from the principal. The Company responded to the trustee denying any fraudulent transfer or any other basis for a claim by the trustee. There has been no further communication between the trustee and Adamis for more than one year, and no suit or any action has been filed against Adamis. Management believes that the trustee has no basis for any fraudulent transfer or other claims against Adamis. Due to the limited nature of discussions with Agape, the early stage of this matter and the facts in this case, the outcome of this matter cannot be determined at this time.



Recent Events

09/22/2011—Adamis Pharmaceuticals Corporation announced that the technology that constitutes its compound APC-200 was recently granted patents in Singapore and South Africa. These patents strengthen the Adamis APC-200 patent portfolio for the use of APC-200 in the treatment of early and late stage prostate cancer.

08/30/2011—Announced that it enrolled the first patient in its Phase I/IIa clinical prostate study. Adamis' drug, APC-100, is used to treat men with castrate-resistant prostate cancer. Patient assessments include toxicity, biochemical (prostate-specific antigen [PSA]), radiographic, and clinical responses. The study began at the University of Wisconsin Carbone Cancer Center and will likely be extended to Wayne State University Karmanos Cancer Institute. Both of these institutions are currently named within "The Prostate Cancer Clinical Trials Consortium." This Clinical Trials Consortium (or Prostate Cancer Centers of Excellence) is composed of a 13-member clinical trial research group. A description of APC-100 is provided on pages 26-28.

07/26/2011—Announced that certain milestones were achieved under a November 2010 Common Stock Purchase Agreement with an investor, which allows the investor to purchase \$10 million of Common Stock at \$0.25 per share. Under the agreement as amended, the Company received \$550,000 of a milestone payment in June 2011 and another \$550,000 in July 2011.

07/21/2011—Adamis announced that the technology that constitutes its compound APC-100 was recently granted a patent in the U.S. A patent entitled "Chroman-Derived Compounds for the Treatment of Cancer" has been issued. This patent, together with earlier issued European and U.S. patents, strengthens the Adamis APC-100 patent portfolio for the use of APC-100 in the treatment of early- and late-stage prostate cancer. Claims include a method of inhibiting the growth of prostate cancer cells, delaying the progression of prostate cancer, and preventing the recurrence of prostate cancer.

07/20/2011—Announced that in addition to activity in pancreatic cancer and multiple modes of action, APC-300 (detailed on pages 29-30) significantly inhibits the growth of prostate cancer cells.

07/13/2011—Announced that the technology that constitutes the basis of a novel cell-based cancer vaccine, TeloB-VAX (described on pages 23-26), was recently granted a patent in Europe. A patent entitled "Somatic transgene immunization and related methods" has been issued. Although genetic vaccines (DNA) have been used, there remains a need to develop more effective methods to exploit their ability to induce a reproducible immune response. The present invention is believed to satisfy this need and provide related advantages as well. The issued claims offer protection of a technology platform developed by Dr. Maurizio Zanetti, Professor of Medicine and Director of the Laboratory of Immunology at the University of California, San Diego Moores Cancer Center.

06/08/2011—Announced that the U.S. Food and Drug Administration (FDA) accepted an Investigational New Drug (IND) application for APC-100 to treat prostate cancer.

04/19/2011—Announced the completion of the acquisition of a patented cancer vaccine technology from the Regents of the University of California. This technology constitutes the basis of TeloB-VAX.

03/24/2011—Announced that, in addition to its activity in prostate cancer, APC-300 inhibits the growth of pancreatic cancer cells, as identified through preclinical research by Dr. Hasan Mukhtar and his team at the University of Wisconsin.

03/09/2011—Announced that the submission of an IND to the FDA for APC-100 to treat prostate cancer.

02/16/2011—Announced the appointment of two new non-employee independent directors, Dr. Tina S. Nova and Mr. Craig A. Johnson, to the Board of Directors, which is profiled on pages 12-13.



01/13/2011—Announced the appointment of a new non-employee independent director, Mr. Kenneth M. Cohen, to the Board of Directors.

12/07/2010—Announced the successful completion of a Phase III contraceptive trial of the Company's contraceptive gel product candidate, Savvy[®] (C31G). Page 20 details Savvy[®] and its Phase III trial results.

12/01/2010—Announced the signing of a strategic manufacturing, supply, and product development agreement with Beximco Pharmaceuticals Ltd., as further detailed on pages 17-18.

11/11/2010—Announced the signing of a definitive Common Stock Purchase Agreement with Eses Holdings Limited, a company located in the United Arab Emirates. Pursuant to the agreement, Eses agreed to invest \$10 million and acquire 40 million shares of Adamis' Common Stock at a purchase price of \$0.25 per share. Of the investment, \$5 million was made at an initial closing.



Glossary

Active Pharmaceutical Ingredient—The substance in a pharmaceutical or other drug that is biologically active.

Allergic Rhinitis—A collection of symptoms, mostly in the nose and eyes, which occur in response to an allergy, such as dust, dander, or pollen.

Anaphylaxis—A life-threatening allergic reaction.

Androgen Deprivation Therapy (ADT)—A type of hormone therapy that blocks the action of androgens (male sex hormones). Anti-androgens are frequently used in the treatment of prostate cancer.

Antibody—(also known as an immunoglobulin) A protein produced by the immune system in response to the presence of antigens. Its function is to recognize and attach to antigens, marking them for clearance from the system and/or destruction by other components of the immune system. Each antibody has a unique binding site that combines with the complementary site of a foreign antigen.

Asthma—A respiratory condition marked by spasms in the bronchi of the lungs, causing difficulty breathing. It usually results from an allergic reaction or another form of hypersensitivity.

Auto-injectors—Usually spring-loaded hypodermic syringes to use in injecting oneself with a liquid.

C31G—A proprietary surfactant mixture with antibacterial, antiviral, antifungal, and spermicidal properties.

Cancer Cell Progenitors—A progenitor cell, often confused with stem cell, is an early descendant of a stem cell that can only differentiate but cannot renew itself anymore. A progenitor cell is often more limited in the kinds of cells it can become than a stem cell.

Cancer Stem Cells—A stem cell can renew itself (make more stem cells by cell division) or it can differentiate (divide and with each cell division evolve more and more into different types of cells). Cancer stem cells (found within tumors or hematological cancers) possess characteristics associated with normal stem cells, specifically the ability to give rise to all cell types found in a particular cancer sample. Cancer stem cells are tumorigenic (tumor-forming), in contrast to other non-tumorigenic cancer cells.

Cancer Vaccine—Unlike a traditional preventive vaccine, which is administered in order to prevent a patient from contracting a disease, therapeutic cancer vaccines are being designed for administration after a patient has been diagnosed with cancer. The vaccine stimulates the patient's immune system to target and attack certain proteins or antigens known to be expressed by the patient's tumor with the objective of slowing or preventing further growth of the cancer.

Cardiac Arrest—Failure of the pumping action of the heart, resulting in loss of consciousness and absence of pulse and breathing; a medical emergency requiring immediate resuscitative treatment.

Castrate—A level associated with what occurs after castration (surgical or chemical techniques to eliminate testosterone). A castrate testosterone is defined by most physicians as less than 20 ng/ml or less than 0.69 nM/L. Castrate-resistant prostate cancer entails the progression of disease after hormone therapy, which is routinely employed as a treatment for prostate cancer that seeks to control the body's production of male hormones such as testosterone and androgen.

CD8—A protein embedded in the cell surface of certain T-lymphocytes, which are also called cytotoxic T-cells. Some CD8 cells recognize and kill cancerous cells and those infected by intracellular pathogens (e.g., bacteria, viruses, and mycoplasma).

COPD—Chronic obstructive pulmonary disease (COPD) is one of the most common lung diseases that makes it difficult to breathe. Two main forms of COPD are chronic bronchitis and emphysema.



CT Imaging—A computed tomography (CT) scan that uses X-rays to create cross-sectional pictures of the body.

Epinephrine—A hormone secreted by the adrenal glands, especially in conditions of stress, that increases rates of blood circulation, breathing, and carbohydrate metabolism and prepares muscles for exertion. Epinephrine treatment is used to relieve respiratory distress due to bronchospasm, to provide rapid relief of hypersensitivity reactions to drugs and other allergens (such as in anaphylaxis), to prolong the action of infiltration anesthetics, to restore cardiac rhythm in cardiac arrest, to treat mucosal congestion of hay fever, rhinitis, and acute sinusitis, and to relieve bronchial asthma, among many other indications.

Exercise-Induced Bronchospasm (EIB)—A condition that can make it hard to breathe during or after physical activity. EIB is sometimes referred to as exercise-induced asthma, because the symptoms of EIB are similar to asthma symptoms.

Form 505(b)(2)—Pertains to section 505(b)(2) of the Federal Food, Drug, and Cosmetic Act. A 505(b)(2) application is a new drug application (NDA) described in section 505(b)(2) of the Act. It is submitted under section 505(b)(1) of the Act and approved under section 505(c) of the Act. A 505(b)(2) application contains full reports of investigations of safety and effectiveness for a product but at least some of the information required for approval comes from studies not conducted by or for the applicant and for which the applicant has not obtained a right of reference.

Heart Block—Recurrent sudden attacks of unconsciousness caused by impaired conduction of the impulse that regulates the heartbeat.

HFA Propellant—A chemical in the hydrofluroalkane (HFA) group. HFAs are a newer type of propellant used in metered-dose inhalers, for example. They help push the medicine in an inhaler canister out into the air in a mist form, allowing people to easily breathe the medicine into their lungs. In the past, propellants made of chlorofluorocarbon (CFC) were employed but were banned due to their harmful effects on the ozone layer.

Immunotherapy—Utilizes the body's immune system to fight invading microorganisms (pathogens) or aberrant cells while trying not to harm the surrounding healthy cells. The concept of employing immunotherapy to treat cancer is based on the body's natural defense system, which is able to combat a variety of diseases. Researchers are developing techniques to improve the immune system's ability to identify abnormal cells and strengthen the response against cancer. In particular, scientists are studying techniques that enhance the host immune system's ability to target cancer cells, maintain remission, and possibly even eradicate all cancer within the body.

New Drug Application (NDA)—The vehicle in the U.S. through which drug sponsors formally propose that the U.S. Food and Drug Administration (FDA) approve a new pharmaceutical for sale and marketing. The type of NDA that Adamis intends to file for its epinephrine injection is a 505(b)(2) application, which contains full reports of investigations of safety and effectiveness but where at least some of the information required for approval comes from studies not conducted by or for the applicant and for which the applicant has not obtained a right of reference.

Open-Angle Glaucoma—Among the most common types of glaucoma and also known as chronic glaucoma, open-angle glaucoma is caused by blockage of the canal of Schlemm. It produces gradual loss of peripheral vision.

Oxidative Stress—Physiological stress on the body caused by free radicals and other reactive oxygen species (ROS) that were inadequately neutralized by the body's antioxidants.

Prefilled Syringe—A syringe to which a needle has been affixed and that has been prefilled by the manufacturer.

PSA—(Prostate-specific antigen) A protein manufactured exclusively by the prostate gland that, when it is elevated in blood serum, is associated with benign prostatic hyperplasia and prostate cancer.



Ras Oncogene—The Ras gene family is composed of three closely related genes on three different chromosomes. Abnormalities have been identified in a variety of human tumors.

Specialty Pharmaceuticals—Typically, but not exclusively, these are produced through biotechnology, are administered parenterally, by injection, or infusion, are initiated by a specialist, require special patient monitoring, education, and counseling, and require special handling. Specialty pharmaceuticals are used to treat specific chronic, often genetic, complex, high-cost, and typically rare conditions including, but not limited to, allergic asthma, cancer, Crohn's disease, Gaucher's disease, and other lysosomal storage diseases, growth hormone disorders, hematopoietic disorders, hemophilia, hepatitis C, HIV, infertility, multiple sclerosis, osteoporosis, Parkinson's disease, psoriasis, pulmonary disorders, pulmonary hypertension, rare autoimmune disorders, respiratory syncytial virus, and rheumatoid arthritis.

T-cells—Lymphocyte of a type produced or processed by the thymus gland and actively participating in the immune response.

Telomerase—An enzyme concerned with the formation, maintenance, and renovation of telomeres, the ends of chromosomes.

Transgenic Adenocarcinoma of the Mouse Prostate (TRAMP) Model—A mouse model that closely mirrors the pathogenesis of human prostate cancer.

Tumor Marker—A substance produced by tumor cells or by other cells of the body in response to cancer or certain benign (non-cancerous) conditions. These substances can be found in the blood, urine, tumor tissue, or other tissues. Different tumor markers are found in different types of cancer, and levels of the same tumor marker can be altered in more than one type of cancer.

Vasoconstrictor—Any agent that causes a narrowing of a blood vessel: cold, stress, nicotine, epinephrine, norepinephrine, angiotensin, vasopressin, or certain drugs. It maintains or increases blood pressure.



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