

2010 NCI SBIR Investor Forum



November 9, 2010

Stanford University Frances C. Arrillaga Alumni Center

326 Galvez Street
Stanford, CA

Small Business Innovation Research (SBIR) &
Small Business Technology Transfer (STTR) Programs

INVESTOR FORUM AGENDA

8:30 a.m. – 9:00 a.m.

Registration and Breakfast

9:00 a.m. – 9:10 a.m.

Welcome/Agenda Review

Speaker: Melinda Richter, Executive Director,
San Jose BioCenter

9:10 a.m. – 9:20 a.m.

Welcome from Canary Foundation

Speaker: Don Listwin, Founder and CEO,
Canary Foundation

9:20 a.m. – 9:30 a.m.

Welcome from NCI

Speaker: Michael Weingarten, Director,
NCI SBIR Development Center

Company Presentations

9:30 a.m. – 9:45 a.m.

Eutropics Pharmaceuticals

9:45 a.m. – 10:00 a.m.

Omniox, Inc.

10:00 a.m. – 10:15 a.m.

Zacharon Pharmaceuticals

10:15 a.m. – 10:30 a.m.

Etubics Corporation

10:30 a.m. – 10:45 a.m.

Presage Biosciences

11:00 a.m. – 11:30 a.m.

Break

Company Presentations

11:30 a.m. – 11:45 a.m.

Acoustic MedSystems, Inc.

11:45 a.m. – 12:00 p.m.

LOF Technologies

12:00 p.m. – 12:15 p.m.

Imalux Corporation

12:15 p.m. – 12:30 p.m.

ImaginAb, Inc.

12:30 p.m. – 2:00 p.m.

Lunch

Bringing Science to the Market: An Overview of the NCI SBIR Program

Speaker: Michael Weingarten, Director,
NCI SBIR Development Center

**Keynote: A New Era for *In Vivo* and *In Vitro* Cancer Diagnostic
Technologies: The Road Ahead for Commercialization and Patient Care**

Speaker: Sanjiv Sam Gambhir, M.D., Ph.D., Director,
Molecular Imaging Program at Stanford (MIPS)

INVESTOR FORUM AGENDA

Company Presentations

2:00 p.m. – 2:15 p.m.

2:15 p.m. – 2:30 p.m.

2:30 p.m. – 2:45 p.m.

2:45 p.m. – 3:00 p.m.

3:00 p.m. – 3:15 p.m.

3:15 p.m. – 3:45 p.m.

3:45 p.m. – 5:15 p.m.

Biomarker Strategies

GLC Biotechnology, Inc.

Kinemed, Inc.

Fluxion Biosciences, Inc.

MagArray, Inc.

Break

Panel: Game Changers in Oncology: What's on the Horizon?

Moderator: David Parkinson, M.D., President and CEO, Nodality, Inc.

Panelists:

Gwen Fyfe, M.D., Former Vice President of Clinical Hematology/Oncology, and Senior Staff Scientist, Genentech

Laura Esserman, M.D., M.B.A., Director, Carol Franc Buck Breast Care Center, Professor of Surgery and Radiology, UCSF, and Associate Director, Helen Diller Family Comprehensive Cancer Center

Joseph Tomaszewski, Ph.D., Deputy Director, Division of Cancer Treatment and Diagnosis, National Cancer Institute

Joe Gray, Ph.D., Professor, Departments of Laboratory Medicine and Radiation Oncology, UCSF and Director of Life Sciences, Lawrence Berkeley National Laboratory

5:15 p.m. – 6:30 p.m.

Networking Reception

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WELCOME FROM THE NCI SBIR DEVELOPMENT CENTER

Welcome to the annual National Cancer Institute (NCI) Small Business Innovation Research (SBIR) Investor Forum. We appreciate your attendance and participation in such an important event. The forum is an excellent opportunity for you to learn more about the most promising small businesses developing new and innovative technologies for the treatment and diagnosis of cancer. The 14 presenting companies were chosen from a highly competitive field of applicants based on their strength of research, product development, and market potential.

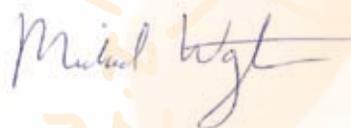
The NCI SBIR & STTR programs represent a portfolio of over 400 projects and a budget of over \$110 million. The NCI SBIR Program is an integral source of capital that enables small businesses to move promising technologies through development and commercialization and remains one of the largest sources of early stage, non dilutive technology financing available in the United States.

Today's investor forum represents one of the valuable initiatives implemented by the NCI SBIR Development Center to further help companies drive the commercialization of novel therapeutics, diagnostics, devices, and e-health products. Today will also provide a chance for investors and strategic partners to learn about the NCI SBIR Bridge award. This award, a \$3 million funding opportunity, represents an innovative way for both the NCI and investors to work together to leverage their investments in the most promising companies.

We are pleased to be able to play an active role in the bridging of connections between small businesses we are funding and investors. It is no secret that in today's economic climate, early-stage life sciences companies face a very daunting challenge in accessing the capital needed to advance their discoveries. By doing our part to facilitate the success of these companies, we are also helping to ultimately fulfill the mission of NCI to reduce the burden of cancer.

Today's agenda was designed to allow ample time for you to interact with these companies and to learn about their products and investment opportunities. I encourage you to sign up to meet with them one-on-one. The NCI SBIR Development Center staff is also available today and going forward to discuss the many ways that the NCI can work with your organization to support the commercialization of emerging cancer technologies.

Throughout the day, I encourage you to participate by asking questions, sharing thoughts, networking with others, and learning more about these innovative companies which we believe are poised to play an important role in the fight against cancer.



Michael Weingarten
Director
NCI SBIR Development Center



WELCOME FROM THE SAN JOSE BIOCENTER

To a dedicated few,

Welcome to the inaugural West Coast National Cancer Institute SBIR Investor Forum. Today's Forum is a celebration of some of the most important tenets of our industry:

1. The best of oncological innovation. The young companies you'll meet today embody a shared passion: to bring forward the next generation of break-through medicines to the people who need them. This dedication is the hallmark of this industry, but it frequently gets overshadowed by sensational headlines. Today we underscore our collective commitment to innovation and honor the powerful movement of change these precious few are inspiring.
2. The best of government funds. The National Cancer Institute is the leader of government research agencies thanks to their vision and proactive approach to turn crucial research into a reality for patients. The NCI's recent Bridge Award Program and indeed, this Investor Forum, exemplify the unique ways we are working to ensure ground breaking innovation becomes medicine. Today we applaud public/private partnerships, and take the opportunity to join forces with an institution that takes the necessary early high risk investments in our future innovation.
3. The best of our industry. Distinguished and influential industry leaders have dedicated time and resources to select and coach these companies. At a time where everyone is stretched to do more with less, we found a dedicated and incredibly generous few. So ultimately, today is about community, an opportunity to come together to fight cancer.

For all these reasons and more, we are privileged to co-host today's program in light of what this Forum represents.... and to you, a dedicated few, who soldier forward relentlessly for our families, our friends, our neighbors.

Thank you,



Melinda Richter
Executive Director
San Jose BioCenter



NCI SBIR & STTR OVERVIEW

LEADING SMALL BUSINESS INNOVATION AND COMMERCIALIZATION IN THE FIGHT AGAINST CANCER

Overview of the NCI SBIR & STTR Programs

Small businesses are a national resource for the development of innovative technologies and a mainstay of the American economy. The Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Programs were created by the U.S. Congress to strengthen the role of small, innovative companies in federally supported research and development. At the National Cancer Institute (NCI), these programs seek small business participation in the development and commercialization of technologies that will help in the fight against cancer. Specifically, the NCI SBIR & STTR Programs seek to support research and development of anticancer agents, biomarkers, informatics, medical devices, cancer imaging, nanotechnology, proteomics, pharmacodynamics, as well as many other areas of interest. Entrepreneurs and small businesses are encouraged to explore grant and contract funding opportunities to support work in these areas.

The NCI SBIR & STTR Programs serve as one of the largest sources of early-stage technology financing in the United States. Through these programs, small businesses can receive seed capital to push promising technologies through development and toward commercialization. In addition, there are several other reasons why SBIR & STTR funding may be right for your business:

- SBIR & STTR awards provide recognition, verification, and visibility
- SBIR & STTR funding can be a leveraging tool to help attract additional funding from other third-party investors
- Awards are not loans; no repayment is required
- SBIR & STTR funding is non-dilutive capital (i.e., an award does not impact the company's stock or shares in any way)
- Intellectual property rights to technologies developed under these programs are retained by the small business concern

Program Goals

To help achieve the NCI's mission, the SBIR & STTR Programs act as NCI's catalyst of innovation for developing and commercializing novel technologies and products to prevent, diagnose, and treat cancer.

The goals of the NCI SBIR & STTR Programs are to:

- Stimulate technological innovation
- Increase private-sector commercialization of federal research and development
- Increase small business participation in federally funded research and development
- Foster participation by minority and disadvantaged companies in technological innovation

NCI SBIR & STTR OVERVIEW

SBIR: Small Business Innovation Research

The NCI SBIR Program funds early-stage research and development within small businesses.

To participate in the NCI SBIR Program:

- The Small Business Concern (SBC) must be an organized for-profit business of 500 employees or fewer (including affiliates), located in the United States
- The SBC must be:
 - At least 51 percent U.S.-owned by individuals and independently operated
- OR
- At least 51 percent owned and controlled by another for-profit business concern that is at least 51 percent U.S.-owned by individuals and independently operated
- The Principal Investigator's primary employment must be with the SBC at the time of award and for the duration of the project period

STTR: Small Business Technology Transfer

The NCI STTR Program is similar in structure to SBIR with the exception of funding cooperative research and development projects involving a small business and a research institution (i.e., college or university, federally-funded center, non-profit research institution). The purpose of STTR is to create an effective vehicle for moving ideas from our nation's research institutions to the commercial market.

To participate in the NCI STTR Program:

- The SBC must meet the same size and ownership guidelines as for the SBIR Program
- The company must be engaged in a formal cooperative research and development effort with a U.S. research institution (i.e., college or university, federally-funded research and development center, or non-profit research institution)
- A minimum of 40 percent of the work must be done by the small business and a minimum of 30 percent of the work must be done by the research institution
- The Principal Investigator's primary employment may be with either the SBC or the research institution

For more detailed eligibility criteria, visit: sbir.cancer.gov/about/eligibility.

How to Apply

The NCI SBIR & STTR Programs are your entryway to federally funded cancer research. Organizations must first apply for a Phase I award. If Phase I proves successful, the company may apply for a two-year Phase II award to further develop the concept, usually to the prototype stage. Funding is awarded competitively. Proposals are judged on the basis of scientific, technical, and commercial merit.

Dedicated NCI program staff members are available to answer questions about the NCI SBIR & STTR Programs and to help meet your research program needs. For further information regarding program eligibility, limitations, definitions, and other resources, please visit our website at: sbir.cancer.gov.

NCI SBIR & STTR OVERVIEW

Three-Phase Program

Phase I. The objective of Phase I is to establish the technical merit and feasibility of the proposed research and development efforts and to determine the quality of performance of the small business awardee organization prior to providing further federal support in Phase II.

Phase I support is normally \$150,000 provided over a period of six months for SBIR and \$100,000 over a period of one year for STTR. However, with proper justification, applicants may propose longer periods of time and greater amounts of funds necessary to establish the technical merit and feasibility of the proposed project.

Phase II. The objective of Phase II is to continue the research and development efforts initiated in Phase I. Only Phase I awardees are eligible for a Phase II award. Phase II awards are normally \$1 million over two years for SBIR and \$750,000 over two years for STTR. However, with proper justification, applicants may propose longer periods of time and greater amounts of funds necessary for completion of the project.

Phase II Bridge. The SBIR Phase II Bridge Award is for previously funded NIH SBIR Phase II awardees to continue the next stage of research and development for projects in the areas of cancer therapies and imaging technologies. The objective of the Phase II Bridge Award is to help address the funding gap known as the "Valley of Death" a company may encounter between the end of the Phase II award and the commercialization stage.

Budgets up to \$1 million in total costs per year and project periods up to three years (a total of \$3 million over three years) may be requested from the NCI. To incentivize partnerships between awardees and third-party investors and/or strategic partners, competitive preference and funding priority will be given to applicants that demonstrate the ability to secure substantial independent third-party investor funds (i.e., third-party funds that equal or exceed the requested NCI funds). This funding opportunity is open to current and recently expired NIH SBIR Phase II projects.

Phase III. The objective of Phase III, where appropriate, is for the small business concern to pursue with non-SBIR/STTR funds the commercialization objectives resulting from the Phase I/II research and development activities.

Contact Information

Small Business Innovation Research Development Center

National Institutes of Health

National Cancer Institute

Building 31, Room 10A19

31 Center Drive, MSC 2580

Bethesda, Maryland 20892-2580

sbir.cancer.gov

Main phone number: 301-594-7709

Email address: ncisbir@mail.nih.gov

NCI SBIR & STTR FUNDING OPPORTUNITIES

NCI SBIR & STTR PROGRAMS FUNDING IS AVAILABLE THROUGH THE FOLLOWING VEHICLES:

Contract Topics

Application typically due in November

The NCI SBIR offers contract funding opportunities once a year in a range of novel technology areas to help successfully finance and advance innovations towards commercialization. For FY 2011, \$11 million was set aside for Phase I funding for 21 different contract topics. This funding for small businesses supports the research and development of anti-cancer agents, biomarkers, health information technology, nanotechnology, proteomics, pharmacodynamic assays, and many other areas of interest to the NCI.

Phase II Bridge Award

New announcement coming soon

NCI's newest funding initiative, the SBIR Phase II Bridge Award, is specifically designed to augment previously funded NIH-wide SBIR Phase II projects that require additional funding in order to achieve key technical and regulatory milestones along the path toward commercialization.

Grants and Omnibus Solicitation

Applications due annually on April 5, August 5, and December 5

Funding opportunities are intended for U.S. small businesses that have the research capabilities and technological expertise to contribute to the research and development missions of the awarding components identified in the Omnibus solicitation and are encouraged to apply.

Innovative Molecular Analysis Technologies (IMAT)

Applications due February 8, 2011

The IMAT grant will provide funding to small businesses conducting research towards the commercial development of emerging molecular and/or cellular analytical technologies intended for cancer detection and/or characterization. Companies with an emphasis on molecular analysis technologies to improve cancer prevention, detection and diagnosis, surveillance, epidemiological research, and basic cancer research are encouraged to apply. Applications must demonstrate rationale pointing to the commercial potential of the technology to be developed.

For the latest information about NCI SBIR & STTR funding opportunities or to sign-up to receive e-mail notifications when new funding announcements are released, please visit: sbir.cancer.gov.

NCI DEVELOPMENT CENTER CONTACTS



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*Biologics, Small Molecules, and
Therapeutic Surgical Interventions*



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Cancer Biology, E-Health, and Epidemiology



Andy Kurtz, Ph.D.

Program Director

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*Biologics, Small Molecules, and
Nanotherapeutics*



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*E-Health, Epidemiology, Software
Development Related to Cancer Control &
Population Sciences, and Therapeutics*



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In-Vitro Diagnostics and Bioinformatics



**David Beylin, M.B.A., M.S.,
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*Cancer Imaging, Radiation Therapy, and
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*Therapeutics, Diagnostics, and
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SPEAKER BIOGRAPHIES



Michael Weingarten, M.A. **Director, NCI SBIR** **Development Center**

Michael Weingarten is the Director for the Small Business Innovation Research (SBIR) Development Center at the National

Cancer Institute, one of 27 Institutes of the National Institutes of Health (NIH) in Bethesda, MD. In this role, Mr. Weingarten leads a team of eight Program Directors who manage all aspects of the NCI SBIR & STTR Programs including a portfolio of over \$110M in grants and contracts annually. The SBIR & STTR programs are NCI's engine of innovation for developing and commercializing novel technologies and products to prevent, diagnose, and treat cancer.

In his current role, Mr. Weingarten led a team that developed a set of key recommendations for optimizing the performance of the NCI SBIR Program at the NIH. Those recommendations included the establishment of an SBIR Development Center to manage the NCI SBIR Program. This Center is staffed with talented leaders from both industry and the NIH who have expertise in the development and commercialization of technology in the cancer field to optimize the returns the NCI achieves through this program.

Under Mr. Weingarten's leadership and direction, the NCI SBIR Development Center has launched a range of new programs to facilitate the success of small businesses in the cancer space. One of these new initiatives is a brand new funding program for the NIH known as the SBIR Phase II Bridge Award, which more than triples the amount of funding available to applicants through the NCI SBIR Program. The Phase II Bridge Award helps small businesses "bridge" the funding gap known as the "Valley of Death," that currently exists between the end of the SBIR Phase II award and the next round of financing needed to advance a promising cancer therapy or imaging technology. This new award also incentivizes partnerships between NIH's SBIR Phase II awardees and third-party investors and/or strategic partners.

For small businesses, raising funds from investors or strategic partners can still be a very difficult task. For this reason, NCI SBIR has launched an annual investor forum where potential investors can get a first look

at some of the most promising NCI SBIR companies that are developing the next generation of cancer therapeutic, diagnostic, or imaging technologies.

Prior to joining the NIH, Mr. Weingarten was the manager of partnership development activities for NASA's Technology Transfer program which included the SBIR program. In his 12 years with NASA Headquarters in Washington, D.C., Mr. Weingarten played a major role in the creation and design of NASA's Technology Transfer program – a network of 10 NASA research centers and six regional technology transfer centers. Mr. Weingarten has a bachelor's degree in political science from Northwestern University, Chicago, Ill., and a master's degree in political science from Columbia University in New York City.



David R. Parkinson, M.D. **President and CEO, Nodality**

David R. Parkinson is President and CEO of Nodality, a South San Francisco-based biotechnology company focused on the biological characterization of signaling

pathways in patients with malignancy to enable more effective therapeutics development and clinical decision-making. Until October 2007 Dr. Parkinson was Senior Vice President, Oncology Research and Development at Biogen Idec. At Biogen Idec he oversaw all oncology discovery research efforts and the development of the oncology pipeline. Previously he had served as Vice President, Oncology Development, at Amgen and Vice President, Global Clinical Oncology Development at Novartis. During his tenures at Amgen and Novartis, Dr. Parkinson was responsible for clinical development activities leading to a series of successful global drug registrations for important cancer therapeutics, including Gleevec, Femara, Zometa, Kepivance, and Vectibix.

Dr. Parkinson worked at the National Cancer Institute from 1990 to 1997, serving as Chief of the Investigational Drug Branch, then as Acting Associate Director of the Cancer Therapy Evaluation Program, before leaving for Novartis. He has also held academic positions at the M.D. Anderson Cancer Center, University of Texas and New England Medical Center of Tufts University School of Medicine. He received his M.D. as

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gold medalist from the University of Toronto Faculty of Medicine in 1977, with Internal Medicine and Hematology/Oncology training in Montreal at McGill University and in Boston at New England Medical Center.

Dr. Parkinson is a past Chairman of the Food & Drug Administration (FDA) Biologics Advisory Committee and is a recipient of the FDA's Cody Medal. He is a past President of the International Society of Biological Therapy, and past Editor of the Journal of Immunotherapy. He currently serves on the National Cancer Policy Forum of the Institute of Medicine, serves as co-chair of the Cancer Steering Committee of the NIH Foundation Biomarkers Consortium and is Chairman of the AACR Finance Committee. He has recently completed terms as a member of the FDA's Science Board and as an elected Director on the Board of Directors of the American Association of Cancer Research. He also serves on the Boards of the Ontario Institute for Cancer Research and the Multiple Myeloma Research Foundation. From 2008-2010 Dr. Parkinson was a Director of Facet Biotech, Inc., a public biopharma company which was acquired by Abbott Pharmaceuticals. He recently joined the Board of Threshold Pharmaceuticals, a biotechnology company focused on the discovery and development of anti-cancer drugs.



Melinda Richter
Executive Director,
San Jose BioCenter
and Founder and CEO,
Prescience, Intl.

Melinda Richter is the founder and CEO of Prescience International, a firm dedicated to the commercialization of science and technology through starting and managing research centers, incubators, foundations and institutes such as the San Jose BioCenter, Environmental Business Cluster (EBC), UC Berkeley BioExec Institute and Cleantech Exec Program. With over 15 years of global experience managing and operating incubators and research centers, Ms. Richter specializes in the practices that expedite the path to commercialization.

Ms. Richter started her career within a small elite leadership group of 8-10 people who were selected and developed to be one of the leaders of the Nortel Networks. Ms. Richter worked for eight years in

Nortel Networks throughout North America, the U.K., Europe, Central and Latin America, and Asia. Ms. Richter worked in acquisitions, strategic planning, marketing, contract negotiations, engineering and manufacturing optimization, world trade market development, and general management of an IT business unit. One of Ms. Richter's key accomplishments was the successful implementation of a new technology across Nortel Networks' seven international regions including Nortel Africa, Nortel Asia South Pacific, Nortel CALA (Caribbean and Latin America), Nortel China, Nortel Europe, Nortel Japan, and Nortel U.K. Ms. Richter won several Nortel awards including the highest level CEO Award for People / Emerging Market Development in China. In China, Ms. Richter was responsible for creating joint ventures with locally owned telecommunications companies and, post agreement, she was responsible for developing the management for each joint enterprise. She also was responsible for general management development for Nortel Asia Pacific, which encompassed the regions of Nortel China, Nortel Japan, and Nortel Asia South Pacific. In her final position, she was responsible for integrating and managing a software business unit which was an acquisition of a 1,500 person firm. Ms. Richter left Nortel to start eTreasurer, a European online financial and accounting hub for CFOs, where she raised \$11M and executed operations in London, Paris and Barcelona. Following, Ms. Richter led business development for high technology companies in Silicon Valley before entering the field of incubation for science and technology by co-leading the life science and technology incubator, Astia (formerly known as the Women's Technology Cluster).

Currently Ms. Richter's firm oversees the direction of centers of commercialization including the San Jose BioCenter, a science and technology incubator that provides specialized facilities, capital equipment, laboratory support and business development services to life science and cleantech companies and the Environmental Business Cluster (EBC), the largest private technology commercialization program for clean energy start ups in the United States. Prescience International also directs the University of California at Berkeley's BioExec Institute and Cleantech Exec Program which Ms. Richter co-founded. Additionally, Prescience International consults on other commercialization centers such as the US Market Access Center and international agencies such as JETRO, the Canadian Consulate General, and the Finnish agency Global Connexus, and provides business

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development services to their respective companies in the fields of science and technology.

Ms. Richter currently sits on the governing board of the National Business Incubation Association and the boards of University of California Berkeley's Haas School of Business BioExec Institute and San Jose State University's Masters of Biotechnology Program. Ms. Richter holds a Bachelor of Commerce from the University of Saskatchewan in Canada and an M.B.A. from INSEAD in France.



Don Listwin Founder and CEO, Canary Foundation

Don Listwin is the founder of Canary Foundation, the nation's only non-profit organization devoted to early detection of

cancer. Mr. Listwin also serves on the National Cancer Institute's Board of Scientific Advisors, The Melanoma Cancer Center at The Moffitt Cancer Center, The Fred Hutchinson Cancer Research Center, and the External Advisory Board for the Center for Cancer Nanotechnology Excellence (CCNE) at Stanford. The former CEO of Sana Security, Openwave and the #2 executive at Cisco Systems, Listwin now serves on the Board of Directors of GenoLogics Life Sciences, Calix Networks, Clustrix Systems, and Stratos Biosciences. He is also on the Board at Public Library of Science.



Sanjiv Sam Gambhir, M.D., Ph.D. Director, Molecular Imaging Program at Stanford (MIPS)

Dr. Sanjiv Sam Gambhir is the Virginia & D.K. Ludwig Professor of Radiology and Bioengineering, Director of the Molecular

Imaging Program, and head of Nuclear Medicine at Stanford University. He also heads up the new Canary Center at Stanford for Cancer Early Detection. He received his M.D./Ph.D. from the UCLA Medical Scientist

Training Program. He directs over 200 scientists at Stanford as well as 30 members of his own research laboratory. He has over 375 publications in the field and over 30 patents pending or granted. An internationally recognized researcher in molecular imaging with over \$75 Million of NIH funding as the PI, his lab has focused on interrogating fundamental molecular events in living subjects. He has developed and clinically translated several multimodality molecular imaging strategies including imaging of gene and cell therapies. He serves as an advisor to several companies including General Electric Medical Systems and Bayer-Schering and has also co-founded several imaging startups. He serves on numerous academic advisory boards for Universities around the world and is also a member of the Scientific Advisory Board of the National Cancer Institute. Among his many awards he is the recipient of the Paul C. Aebersold Award for outstanding achievement in basic nuclear medicine science from the SNM, 2009 Outstanding Researcher Award from the Radiological Society of Northern America, the Distinguished Clinical Scientist Award from the Doris Duke Charitable Foundation, the Holst Medal, the Tesla Medal, and the Hounsfield Medal from Imperial College, London. He was also elected as one of the youngest members of the Institute of Medicine of the US National Academies in 2008.

Gwendolyn Fyfe, M.D. Former Vice President of Clinical Hematology/ Oncology and Senior Staff Scientist at Genentech

Gwen Fyfe, M.D. is currently an oncology strategy and clinical development consultant with extensive experience in the successful Phase I-IV development of agents used for the treatment of solid and liquid tumors.

Dr. Fyfe attended Washington University Medical School and trained in pediatrics and pediatric oncology at Washington University and UCSF. Following a post-graduate fellowship in immunology she joined Chiron Corporation, participating in the successful approval of high dose IL-2 [Aldesleukin (Proleukin®)] for the treatment of metastatic renal cell cancer and subsequently studying the role of intermittent IL-2 in the treatment of HIV disease.

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Dr. Fyfe joined Genentech in 1997. While at Genentech, her responsibilities included overseeing the Genentech oncology pipeline including the clinical trials that led to the approvals of Trastuzumab (Herceptin®), a humanized antibody for the treatment of HER2-positive metastatic breast cancer, Rituximab (Rituxan®), the first therapeutic antibody for the treatment of non-Hodgkin's lymphoma in the United States, and Bevacizumab (Avastin™) for the treatment of metastatic colon cancer and NSCLC and worked with OSI and Roche in the development of Erlotinib (Tarceva®) also leading to its approval in relapsed NSCLC and newly diagnosed pancreatic cancer. With the approval of Bevacizumab, she transitioned to a Franchise Head clinical role and concentrated her efforts on the expansion of Bevacizumab in other solid tumors. She was promoted to Vice President, Clinical Hematology/Oncology in 2002 and became a Senior Staff Scientist in 2007. In this role she became a member of ASCO's Clinical Research Committee and participated in multiple NCI committees and the Institute of Medicine working group directed to improvement of clinical trials activities in the U.S. In September 2009 Dr. Fyfe left Genentech to become an independent consultant.

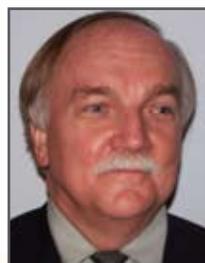


Laura Esserman, M.D., M.B.A., Ph.D.
Professor of Surgery and Radiology, Division of General Surgery, Chief, Section of Breast Care Surgery, and Director of UCSF Carol Franc Buck Breast Care Center

Laura Esserman, M.D., M.B.A., is a Professor of Surgery and Radiology at UCSF and is the Director of the Carol Franc Buck Breast Care Center, an interdisciplinary clinical program where clinical research and quality improvement is integral to care. She is the clinical leader of the Breast Oncology Program of the NCI designated Comprehensive Cancer Center. She is founder and faculty leader of the program in Translational Informatics spanning the disciplines of bioinformatics, medical and clinical informatics, systems integration, and clinical care delivery. In 1996, she started the Center of Excellence for Breast Cancer Care to integrate clinical care and research, automate tools for the capture of

patient and clinical data, and develop systems to tailor care to biology, patient preference, and performance.

Dr. Esserman is nationally and internationally known as a leader in breast cancer and has published over 150 articles. She is the Principal Investigator of the I-SPY Trial program, a multi-site neoadjuvant clinical trial that has evolved into a model for translational research and innovation in clinical trial design. Dr. Esserman is currently developing a University of California-wide breast cancer initiative called the ATHENA Project designed to follow 400,000 women from screening through treatment and outcomes incorporating the latest in molecular testing and web-based tools into the course of care.



Joseph Tomaszewski, Ph.D.
Deputy Director, Division of Cancer Treatment and Diagnosis, National Cancer Institute

Dr. Joseph Tomaszewski was appointed Deputy Director of the Division of Cancer Treatment and Diagnosis (DCTD), NCI in June 2005 and up until August 2008 was also the Chief of the Toxicology and Pharmacology Branch (TPB), DTP, DCTD, NCI for the past 20 years. He received his B.S. in Chemistry from the University of Scranton in 1965 and a Ph.D. in Organic Chemistry from the University of New Hampshire in 1970. His area of specialty is the development of new therapeutics to treat cancer. In 2005, while he was the Acting Associate Director for DTP, he created the Laboratory of Human Toxicology and Pharmacology, which is responsible for developing human in vitro toxicology assays and the development of pharmacodynamic biomarker assays. As a result, he was given the responsibility for developing a new pharmacodynamic initiative within NCI to support early (Phase 0) clinical trials under the FDAs Exploratory-IND Guidance as well as PK/PD driven Phase I clinical trials. Thus, the NCI performed the first Phase 0 in oncology in 2006 using Abbott's PARP inhibitor, ABT-888.

More recently, he has been designated as the lead in the division and the NCI for developing the new Chemical Biology Consortium (CBC) initiative to revitalize drug discovery at the NCI. While Chief of TPB, he

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SPEAKER BIOGRAPHIES

had responsibility for the preclinical toxicological and pharmacological evaluation of all new cancer drugs that are developed by the NCI and for non-oncology therapeutics under the NIDDK Type 1 Diabetes RAID and NIH RAID Pilot Programs. During this period, he has been involved in the preclinical evaluation of more than 180 diverse clinical candidates that has led to the filing of more than 120 INDs/DMFs and the approval of 5 NDAs by the FDA. He is the author/coauthor of over 300 publications / abstracts / presentations at national and international meetings.



Joe W. Gray, Ph.D.
**Professor, Departments of
Laboratory Medicine and
Radiation Oncology, UCSF
and Director, Division of Life
Sciences, Lawrence Berkeley
National Laboratory**

Dr. Joe W. Gray received undergraduate training in Engineering Physics from the Colorado School of Mines and a Ph.D. in Nuclear Physics from Kansas State University in 1972. He then joined the Biomedical Sciences Division of the Lawrence Livermore National Laboratory where he became increasingly active in cancer research, specifically in the development of a broad range of analytic techniques useful in the study of human and model cancers. Dr. Gray moved to the University of California, San Francisco (UCSF) as Professor of Laboratory Medicine and Radiation Oncology in 1991 to pursue his interest in clinical applications of these tools. He established and headed the Division of Molecular Cytometry in the Department of Laboratory Medicine until 1997 when this unit merged with the UCSF Helen Diller Family Comprehensive Cancer Center. He was Interim Director at the Cancer Center from 1995 to 1997 and became Program Leader for Cancer Genetics and Breast Oncology at the Cancer Center. He has been Principal Investigator of the Bay Area Breast Cancer Specialized Programs of Research Excellence (SPORE) since 1996. Dr. Gray was appointed as Associate Laboratory Director for Life Sciences and Director of the Life Sciences Division at the Lawrence Berkeley National Laboratory in April 2003. He continues as a member of the UCSF Helen Diller Family Comprehensive Cancer Center with an appointment as Adjunct Professor of Laboratory Medicine.

Dr. Gray's current research program explores mechanisms by which genomic, transcriptional and proteomic abnormalities occur in selected cancers, elucidates how these abnormalities contribute to cancer pathophysiology and assesses the ways in which these abnormalities influence responses to gene targeted therapies. Current studies focus on developing: (a) integrated analyses of the spectrum of recurrent abnormalities that influence cancer behavior. (b) mathematical models that describe how cancer-associated molecular abnormalities influence individual responses to therapeutic inhibitors (c) novel therapeutic approaches to treat breast or ovarian cancer subpopulations that do not respond well to current aggressive chemotherapeutic strategies (d) proteomic strategies for early detection of breast cancer related proteins in blood (e) automated functional assessment of genes deregulated by genomic abnormalities in cancers and (f) molecular imaging for early detection of metastasis prone breast cancer. In pursuit of these activities, Dr. Gray serves as Principal Investigator of the NCI Bay Area Breast Cancer SPORE, the NCI Cancer for Cancer Systems Biology, the Berkeley Cancer Genome Center, a DOD Innovator Award on Early Breast Cancer Detection and Co-Principal Investigator of an AACR Stand Up to Cancer Breast Cancer project. He is also a member of the NCI Board of Scientific Advisors, the NAS Nuclear and Radiation Studies Board and the Susan G. Komen for the Cure Advisory Council.

Dr. Gray's work is described in more than 380 publications and in 60 patents. Major awards include the Research Award, Radiation Research Society (1985), Distinguished Lectureship, Smith-Kline & French (1986), the E.O. Lawrence Award, United States Department of Energy (1986), Fellow, American Association for the Advancement of Science (1996), Biological and Environmental Research Program Recognition Award - United States Department of Energy (1997), Shiffer Award, Cell Proliferation Society (1997), Boerhave Professor, Leiden University, the Netherlands (2000), Curt Stern Award, American Society for Human Genetics (2001), SPORE Leadership Award, National Cancer Institute (2003), Alumni Fellow, Kansas State University (2005), Distinguished Achievement Award, Colorado School of Mines (2005), Honorary Doctorate, University of Tampere, Tampere, Finland (2005), Innovator Award, United States Department of Defense (2007), Brinker Award for Scientific Distinction, Susan G. Komen Foundation (2007), Team Science Award, American Association for Cancer Research (2008), Fellow of the American Institute for Medical and Biological Engineering (2009), and the Fulwyler Award, International Society for the Advancement of Cytometry (2010).

PRESENTING COMPANY OVERVIEWS

Reference to any specific cancer statement and commercial products, process, service, manufacturer, and/or company, does not constitute an endorsement or recommendation by the NCI SBIR & STTR Programs or any other portion of the U.S. Government.



Acoustic MedSystems, Inc.
www.acousticmed.com
206 N. Randolph Street
Champaign, IL 61820

Dr. Everette Clif Burdette, Ph.D.
President & CEO
Telephone: 217-239-0900
clifb@acousticmed.com

Image guided interventions
11:30 a.m. – 11:45 a.m.

Acoustic MedSystems, Inc. (AMS) is pioneering a new, minimally invasive therapy and image-guided technology to treat localized diseases such as cancer. The company combines its core competencies in interventional image guidance, high-intensity ultrasound ablation technology, treatment planning/dose optimization, and clinical systems integration to develop minimally invasive devices and integrated systems. The specific products are ablation treatment planning, guidance software and systems, and high intensity needle-based and catheter-based interventional devices for thermal ablative therapy. These devices create minimally invasive tracked guidance systems to deliver highly conformal (shape, volume) controlled high-intensity ultrasound energy delivery for customized disease treatment.

Company and Team: Acoustic MedSystems, Inc. is a 12-year-old company primarily funded through contracts and grants. The company is located in a state of the art facility near the University of Illinois campus, a biotech hub of the Midwestern United States. The team is composed

of seasoned management and product development personnel. Everette Burdette, Ph.D., Founder and CEO of Acoustic MedSystems, has 30 years experience, raised several million dollars and has brought multiple sophisticated medical device products to the market. Chris Diederich, Ph.D., Chief Scientific Officer of Acoustic MedSystems, has 20 years of experience at the University of California San Francisco in the field of thermal therapy and is an acknowledged expert in this field.

Competitive Edge: While several technologies are commercially available for minimally invasive thermal therapy (including lasers, radiofrequency, microwave, and cryotherapy), none of these other thermal devices can achieve the collective inherent advantages of the ACOUSTx technology.

- **3-D control and directionality of the ultrasound energy delivery** to treat a prescribed target volume and shape, avoiding or protecting non-targeted tissue.
- **Significantly increased energy penetration into the target tissue** to treat a large range of target volumes, with shorter treatment times.
- **3-D robotic guidance and tracking of steerable delivery device** to precisely target disease site.
- **Dynamic control of the amount and distribution of energy delivered** for real-time response/control to precisely conform the treatment target volume during the treatment process.

This superior control of ultrasound energy delivery provides fast conformal therapy to a predefined treatment margin, completely destroying a conformable target volume while preserving the surrounding healthy tissue.

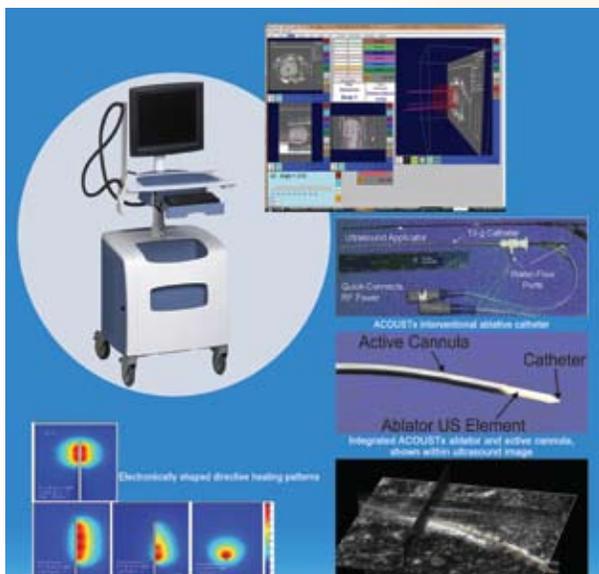
Intellectual Property: There are a total of 12 issued patents and 8 pending patents covering the technology. U.S. patents cover the design and method of the ACOUSTx technology (both catheter and needle designs). Patents have been exclusively licensed from UCSF for use in treatments of tumors (both malignant and benign) in all anatomical soft-tissue sites in the body. AMS also has several patents issued and pending to expand the coverage and applications of the ACOUSTx

(continued)

PRESENTING COMPANY OVERVIEWS

technology, including a recently-issued patent for isolation of a target treatment site. Patents covering additional imaging and guidance technology have been licensed for use with the ACOUSTx technology.

Business Opportunity: Hepatocellular carcinoma (HCC), the most common type of liver cancer, is increasing in incidence each year worldwide. Metastatic diseases from other sites are the most common hepatic malignancies overall in the U.S. Colorectal cancer accounts for the majority of these metastases, although other primary gastrointestinal, lung, and breast tumors also cause hepatic metastases. In the aggregate, 150,000 - 250,000 patients might benefit significantly from the ACOUSTx system. The dollar potential for this market in the U.S. exceeds \$500 million per year, assuming a procedure charge of \$3,500 (excluding physician's charges and facility fees). The renal market comprises approximately 50,000 patients, with a potential revenue of \$175 million per year in the U.S. Current ablation systems are limited due to their inability to treat large (>4cm) lesions, locate the ablation probe(s) optimally, and tailor treatment shape to match tumor volume. Due to the unique control and versatility of the ACOUSTx technology, AMS expects to develop treatment applications for many tumors (both malignant and benign) for disease sites such as liver, kidney, prostate, pancreas, lung, brain, spine, bladder, colorectal and cervix.



AMS's ACOUSTx Ablation Therapy System

Financial Overview: AMS has received \$4 million from NIH SBIR & STTR grants and private financing to develop this broad technology. AMS estimates that with an additional \$3 million, it could finish development, obtain regulatory clearance, and introduce the product to the market within 24 months. Once on the market, the product's technical, clinical, and user advantages should enable it to garner market (patient) share. Reimbursement is already in place for these types of products.



**BioMarker
STRATEGIES**

BioMarker Strategies, LLC
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Kären Olson
CEO
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kolson@biomarkerstrategies.com

In vitro diagnostics
2:00 p.m. – 2:15 p.m.

BioMarker Strategies is developing tissue-based cancer diagnostics, specifically a novel biomarker testing system to improve the treatment of cancer. The SnapPath™ biomarker testing system, supported with \$2.3 million in SBIR funding from the National Cancer Institute, incorporates an automated, live tumor cell-processing device with functional, *ex vivo* biomarker tests to improve drug development and inform clinical decision making for targeted cancer therapeutics. SnapPath™ is being developed to stimulate a patient's live tumor cells after biopsy to obtain a Functional Signaling Profile (FSP) of the signal transduction network that is not possible using current tumor processing methods and static biomarkers from dead tissue. SnapPath™ will help enable personalized

PRESENTING COMPANY OVERVIEWS

medicine for cancer patients with breast, lung, pancreatic, colon, and other solid-tumors. The company was named one of the "Top 20 Most Promising Startups in the U.S." in 2010 by the Thomson-Reuters *Venture Capital Journal*.

Medical Need: Molecular testing of solid tumors relies, almost exclusively, on nucleic-acid testing of formalin-fixed samples. The SnapPath™ platform uniquely enables the *ex vivo* induction of functional biomarkers to show how a patient's live tumor cells actually respond, outside the body, to growth factors and other types of pathway stimulation. Unlike other static biomarker platforms, SnapPath™ enables dynamic drug responsiveness testing since live tumor cells can also be exposed to pathway inhibitors. No technology currently exists for the *ex vivo* profiling of solid tumors to determine the most effective drugs to treat cancer patients. SnapPath™ is being designed to meet these unmet needs.

Business Opportunity: With approximately 1.5 million advanced disease cancer patients in the U.S., the total addressable market for rapid, live-tissue testing exceeds \$5 billion. While this testing process can ultimately be performed on all solid tumors, the initial *ex vivo* biomarker test focuses on functional pathway profiling of patients with advanced breast cancer. BioMarker Strategies also intends to partner with drug companies to co-develop targeted drugs and companion diagnostics using the SnapPath™ biomarker platform.

Competition: To our knowledge, there is no other company developing an automated *ex vivo* processing and testing device for live solid tumor cells. Companies trying to develop predictive tests using static biomarkers extracted from paraffin-embedded tissue include XDX/ Qiagen, Genomic Health, Myriad, Monogram/LabCorp and Prometheus, among others. Precision Therapeutics performs chemo-sensitivity tests on cultured live cells in their CLIA lab. Veridex and On-Q-ity are trying to develop predictive tests using circulating solid tumor cells (CTCs), while Nodality is developing *ex vivo* tests for leukemia and lymphoma.

Stage of Development: BioMarker Strategies is a pre-revenue, product development stage company located at the Johns Hopkins Science + Technology Park in Baltimore, Maryland. SnapPath™ beta units are being built by an OEM, Sparton Medical Systems. In addition to the \$2.3

million in SBIR funding being used for product development, BioMarker Strategies has also raised \$6 million from high net worth individuals and the Abell Foundation. The company also received a grant co-funded by Maryland TEDCO and Johnson & Johnson.

Management: BioMarker Strategies has a strong management team with experience in molecular pathology, molecular diagnostics, FDA-regulated product development and manufacturing, bioengineering, corporate management, and reimbursement. The team includes:

- CEO Kären Olson is the former president and CEO of Adhesives Research, a drug-delivery and specialty chemical company.
- Co-founder and CSO Douglas Clark, M.D., is also professor of pathology and oncology at Johns Hopkins University.
- Co-founder and President Scott Allocco is a former vice president of Coventry Health Care, an insurance and health-care management company.
- Board Chair Christy Wyskiel is a former managing director at Maverick Capital, a multi-billion dollar hedge fund.



Etubics Corporation
www.etubics.com
410 West Harrison Street, Suite 100
Seattle, WA 98119

Frank Jones, Ph.D.
President & CEO
Telephone: 206-838-5110
frank@etubics.com

Therapeutics, with a companion diagnostic
10:15 a.m. – 10:30 a.m.

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PRESENTING COMPANY OVERVIEWS

Etubics is a clinical-stage biotech company with technology that enables the rapid, cost-effective development and commercialization of a new class of therapeutic and preventative vaccines. Etubics began clinical trials in the United States for their first vaccine candidate for the treatment of colon cancer and will soon initiate clinical trials on vaccines for breast cancer treatment and influenza protection. To date, approximately \$20 million has been spent developing the vaccines, and the company is currently raising capital to advance two additional products to the clinic. Funds would also be used to expand infrastructure as well as corporate and scientific relationships.

CORPORATE	
Operational:	2005
Industry:	Biopharmaceutical
Product:	Vector Vaccines Platform and manufacturing human E.C7 Cell Line
Stage:	Clinical Phase I/II
Staff:	9 Full Time Employees

Cell Mediated Immunity: Hard to treat diseases, such as cancers, are not destroyed by antibodies alone and require a new generation of immunotherapies. Most vaccines work by eliciting antibodies, but fail to stimulate the other arm of immunity called cell mediated immunity (CMI). Etubics' technology elicits both antibodies and a CMI response, allowing for researchers to target difficult diseases.

The Etubics Adenovirus Solution: Etubics' adenovirus vector platform seeks to leverage the advantages of the adenovirus, while overcoming historical immunity and safe delivery issues of earlier technology, allowing for the creation of a commercially viable product. Twelve years of research and development has led to development of a proprietary adenovirus platform with the following novel attributes:

- **Stealth-like Vaccine Delivery.** The additional genetic deletions in the novel vectors allow the vaccine platform to be delivered multiple times to the same patient.
- **Generates Cell-Mediated Immunity and Antibody Responses.** Etubics believes that CMI responses may provide the greatest treatment value or protection from hard to treat diseases. Data shows that Etubics' product can induce CMI even

in the presence of adenovirus immunity.

- **Rapid Application for Emerging Diseases.** Etubics can create and manufacture a vaccine within three months. The vaccine is created in human cell lines and is based off of a patented platform.
- **Manufacturing Efficiency.** Etubics can quickly and efficiently scale up production within months of regulatory clearance.
- **Potential to Treat a Wide Range of Diseases.** Etubics vector vaccine candidates have one of the largest carrying capacities, allowing the platform to work with a wide variety of cancers and other diseases.

TARGET DISEASES
Therapeutic Vaccines <ul style="list-style-type: none"> • Colon Cancer • Breast Cancer • Throat Cancer caused by HPV
Prevention Vaccines <ul style="list-style-type: none"> • Influenza • HIV • Malaria

Market Opportunity: Etubics' "next generation" adenovirus vaccine platform is designed to have utility in infectious disease immunization and cancer immunotherapy. These proprietary vaccines provide the potential to penetrate many markets. The disease targets chosen by Etubics will address multibillion dollar markets.

Etubics' therapeutic vaccine targeting carcinoembryonic antigen (CEA) expressing cancers recently entered Phase I/II clinical trials at Duke University Medical Center. The trial is funded by peer-reviewed grants and contracts from the National Cancer Institute (NCI). CEA is over-expressed in colorectal cancers, as well as in pancreatic cancer. This therapeutic CEA cancer vaccine has the potential to induce a CMI response in patients, which could result in reduction of tumor size and increased levels of anti-cancer immunity.

PRESENTING COMPANY OVERVIEWS

Commercialization Strategy: Revenue can be generated through licensing of Eutropics' proprietary human cell line (E.C7), a similar but more advanced Crucell's PER.C6 cell line. Licensing agreements are expected to bring up-front and milestone payments to Eutropics. Currently, the E.C7 manufacturing human cell line has been validated to produce clinical grade material. Eutropics intends to initiate an ongoing and extensive out-licensing program in the near term, which may provide an early source of revenue. Eutropics also plans to license near term products following the collection of Phase I data.

Management: The management team, led by Frank R. Jones, Ph.D. has over 60 years of combined experience in the pharmaceutical development and research space. Dr. Jones has experience not only as an exceptional scientist but also as a biotechnology entrepreneur and chief executive for private and public companies. He has surrounded himself with expertise in business, R&D, manufacturing, government funding, and marketing. Other team members, including immunologist Joseph Balint, Ph.D., and manufacturing operations officer Raj Dua, Ph.D., have brought products both to the clinics and through the regulatory process. Dr. Jones has assembled a broad and internationally known group of advisors within the vaccine space as well as the business arena.



Eutropics Pharmaceuticals
www.eutropics.com
609 Albany Street, Suite 410
Boston, MA 02118

Michael Cardone, Ph.D.
Co-founder, President & CEO
Telephone: 617-638-0490
mcardone@eutropics.com

Therapeutics
9:30 a.m. – 9:45 a.m.

Eutropics is a biopharmaceutical company that uses a unique approach to developing first-in-class targeted drugs for cancer treatment.

Therapeutic: Visualizing and Targeting the Cause of the Cancer

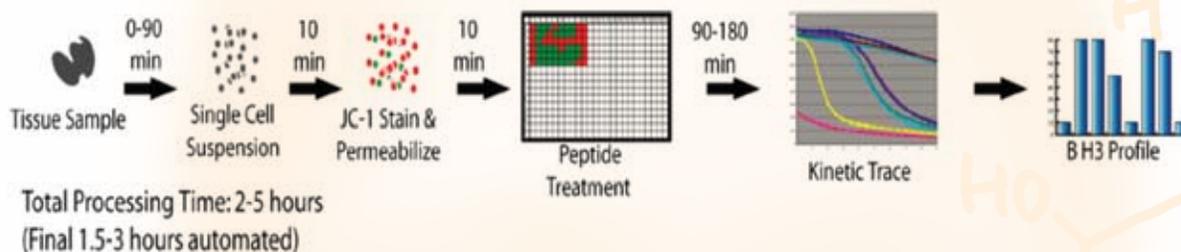
The key to designing effective and less toxic therapies for cancer is to hit targets essential for cancer cell survival, but not required for normal cell survival. The cellular process known as Apoptosis is vital for maintaining healthy tissue. Eutropics is developing drugs that target the apoptotic machinery precisely where it is blocked in order to trigger cell death in cancer cells that otherwise evade control. To guide the use of these drugs, Eutropics relies on a unique and powerful tool that enables the clinician to see where apoptosis is blocked in a particular patient's cancer. If that block is caused by the protein that our treatment targets then it is prescribed as therapy. The assay then becomes an important translational tool, as a companion to the Company's therapeutic that will guide both its clinical development and use.

The initial target of the therapeutic program is Myeloid cell leukemia-1 (Mcl-1), a key member of the Bcl-2 family, proteins that directly regulate apoptosis (programmed cell death). Apoptosis is the natural mechanism that protects the body from uncontrolled cell proliferation, but is blocked in most cancers. Mcl-1 expression has been hypothesized to be a key factor in the development of resistance to standard therapies for hematological malignancies. Based on this recent understanding, Eutropics is developing a Mcl-1 inhibitor to overcome this block and induce apoptosis signaling. This is a unique and powerful approach in this competitive disease area, which is enhanced by Eutropics' technology.

Eutropics is moving forward a lead compound (EU-4030) that selectively inhibits the activity of Mcl-1. Lead optimization is underway using structure guided medicinal chemistry. A novel mitochondrial assay is used to validate on-target activity. This work is being conducted at Eutropics labs. Eutropics has also completed an extensive compound screen (>300K molecules) with the NCI/NIH through an award from the Molecule Library Probes Center Network (MLPCN). Eutropics is actively pursuing several backup hits specific to Mcl-1. Academic collaborations with affiliates at Harvard Medical School and the Dana Farber Cancer Institute are in place to support the program at both preclinical and clinical stages. Initiation of IND enabling pharm/tox studies is

(continued)

PRESENTING COMPANY OVERVIEWS



BH3 Profiling Assay Fits into CLIA Setting

expected within the next 12-18 months with a Phase I trial following in 24-30 months. The primary indication is multiple myeloma, and other hematological malignancies will also be evaluated.

Diagnostic: Enhancing Efficacy and Safety by Guiding Therapies

Eutropics' "companion diagnostic" assay is based on proprietary BH3 profiling technology, invented by a founding member of Eutropics, and exclusively licensed from the Dana Farber Cancer Institute. This technology identifies the alterations of the apoptosis signaling machinery in the cancer cell, elucidating the specific pro-survival dependencies. Visualization of the particular dependency of a cancer cell reveals the unique sensitivity of that cell as well, and informs the treatment options. Ultimately the companion diagnostic assay will guide the use of our novel therapeutic for treating the appropriate cancer patients.

BH3 profiling is used to identify tumor cells that are highly dependent on Mcl-1 for survival. Consequently, there is the ability to select patients predisposed to respond to the Mcl-1 targeted therapeutic in clinical trials. This should significantly reduce clinical trial time and cost, and will greatly enhance the likelihood of a successful drug. A commercial version of this assay (to be developed with a diagnostic partner) will have utility in prescribing treatment for patients once the drug is approved. This use of the assay will be similar to the way the "HerceptTest" is used to guide the prescription of *Herceptin*. Moreover, this assay will stimulate sales of the compound being developed. Recent clinical results indicate that Eutropics' technology platform has broad applications for assessing patient responsiveness to multiple myeloma therapies currently in use. The readout of the assay strongly correlated with "Best patient response" to these therapies and patients segregated cleanly (sensitivity and specificity = 1.0; n=X patients) into "responder" and non-responder" populations. Eutropics will develop this feature of the assay with partners while continuing to develop the assay as a predictor of patient response to the Mcl-1 inhibitor.

Management:

- Michael Cardone, Ph.D., Founder, President/CEO
- Anthony Letai, M.D., Ph.D., Founder, Chairman of Scientific Advisory Board
- Andrew Kolodziej, Ph.D., Director of Drug Discovery and Development
- Giulio Draetta, M.D., Ph.D., Board Member

The Scientific Advisory Board is comprised of leaders in the fields of apoptosis biology, structural biology, pharmacology, oncology, medicinal chemistry, and clinical development.



FLUXION

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Michael Schwartz
Program Director
Telephone: 650-241-4737
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In vitro diagnostics, research tools
2:45 p.m. – 3:00 p.m.

PRESENTING COMPANY OVERVIEWS

Fluxion is a revenue-stage cell analysis platform technology company providing diagnostic, drug discovery, and research systems offering unprecedented levels of performance, throughput, and cost effectiveness. Diagnostic and drug discovery applications are increasingly migrating to cell-based assays to improve testing specificity and relevance. Fluxion manufactures proprietary instruments and microfluidic chips that automatically manipulate, position, sort, and test live cells, solving the limitations of existing "static" assays. Fluxion's products are configured as bench-top instruments running single-use microfluidic chips to carry out a variety of cell-based assays. Fluxion's solutions address a broad range of applications, including cancer diagnostics and drug discovery (cardiovascular, inflammatory, neurology, oncology).

IsoFlux System for Circulating Tumor Cell Diagnostics

Fluxion is currently developing IsoFlux, its third major product line. IsoFlux is a rare cell isolation and analysis platform that addresses the \$3 billion cancer diagnostics market. The system isolates rare cells, such as circulating tumor cells from blood, providing a diagnostic via downstream genotyping of captured tumor cells. Core technology development was funded by a grant from the National Cancer Institute.

Market Opportunity for CTC Diagnostics

Cancer is one of the leading causes of death in the United States and 1.2 million new cases are diagnosed each year. Carcinomas (cancers of epithelial origin) are by far the most prevalent cancer types amongst men and women and include breast, colorectal, prostate, and lung cancer. Genomic instability is the hallmark of most cancers and certain treatment regimens critically depend on genomic data from tumor cells. Some currently prescribed medications are only administered in the presence or absence of specific oncogenes (e.g. Erbitux, Vectibix) with many more of these compounds in the pharmaceutical pipeline. Despite the importance of genetic profiling, the current standard of care lacks the ability to longitudinally track genetic mutations over the course of an individual patient's disease. Once a cancer is diagnosed, a patient is typically prescribed a therapeutic regimen (i.e. chemotherapy, radiation) and monitored every four months with imaging. This standard of care overlooks genetic changes which are unique to the patient's cancer type and disease prognosis. These changes must be considered for maximum treatment efficiency, efficacy, and overall health of the patient. All of this amounts to a critical toll on the health of the nation's cancer population, as well as a burden on the healthcare system. A diagnostic test which provided reliable and timely information on both the extent of the cancer progression as well as the genetic characterization of the disease

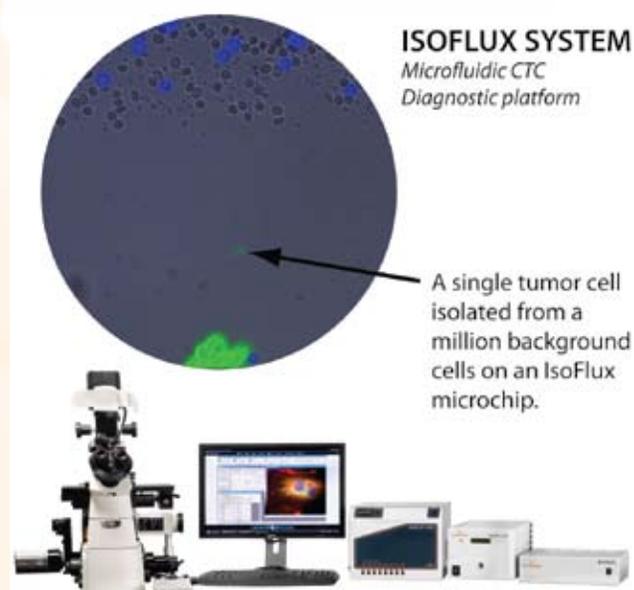
would have a major impact on the detection, diagnosis, treatment, and clinical outcomes of cancer treatments.

Investment Opportunity

Fluxion is seeking a \$6 million Series C Preferred round of financing to accelerate the company's growth to \$25 million in revenue by 2012. Funds will be used to develop the IsoFlux cancer diagnostic system through launch, expand sales and marketing, and automate plate manufacturing. One lead investor is desired. Existing investors Claremont Creek and Kodiak Ventures will participate in the round. To date, the company has raised \$9.6 million in equity.

Key Highlights and Milestones

- Two major product families commercialized to date: BioFlux System for cellular interactions, and IonFlux for ion channel drug screening
- IsoFlux system is in development for circulating tumor cell diagnostics
- Current customers include 6 of top 10 pharma, as well as biotech, leading universities and research institutions (NIH, Harvard, Stanford, UCSF, and more)
- Awarded Frost and Sullivan Biotech Entrepreneurial Company of the Year in 2009
- Winner of 5 NIH grants since inception totaling \$5 million
- Sales and marketing established in U.S. (direct), Europe and Asia (distribution)



(continued)

PRESENTING COMPANY OVERVIEWS

Management Team

- Jeff Jensen, CEO – previous CEO of Eksigent, management at Raychem and Pall
- Cristian Ionescu-Zanetti, Ph.D., CTO – co-founder and developer of core technology, UC Berkeley
- Scott Lockard, VP Engineering – led engineering at ForteBio, Molecular Dynamics, and Cell Biosciences
- Jody Beecher, Ph.D., Director of Consumables – management at Predicant, Affymetrix, CIPHERGEN, and Surface Logix
- Michael Schwartz, Program Director – management at Advanced Stent Technologies, BioCardia, and Converge Medical



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Baochun Guo, Ph.D.
Founder and President
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In vitro diagnostics
2:15 p.m. – 2:30 p.m.

GLC Biotechnology is a start-up cancer diagnostics company that develops highly sensitive and cost-effective DNA-based tests for the non-invasive detection of cancer. GLC's proprietary technologies, ranging from clinical specimen collection and preservation to DNA analysis, are essential to DNA-based testing and thus position GLC to be a leader in this emerging market. GLC has developed its first version of fecal DNA

testing for colorectal cancer (CRC) screening, which is currently being tested in the clinic.

Baochuan Guo, Ph.D., is the founder and president of GLC. He leads GLC's technology and product development, has received multiple patents, serves as the Principal Investigator of seven National Institute of Health grants (including four SBIR projects), and has published over 70 scientific papers. Glen Gaughan, Ph.D., M.B.A., is CEO-in-Residence at BioEnterprise, a regional business accelerator. Dr. Gaughan has provided business and product development, fundraising, and other consulting services to early stage biomedical companies for the past seven years. He was also a drug discovery scientist for a major pharmaceutical company for almost 20 years.

Product and Market

The first non-invasive cancer-screening product developed by GLC is a fecal DNA test to screen for colorectal cancer. Approximately 150,000 people in the U.S. are diagnosed with CRC each year, and 50,000 will die from the disease. When detected at the early precancerous or initial cancer stages, the complete cure rate is high compared to the quite dismal outcomes due to late stage detection. These considerations have led to Centers for Medicare & Medicaid Service (CMS) and broad third party reimbursement for screening of high-risk groups. High risk groups in the U.S. include approximately 85 million people over the age of 50.

Current screening methods include a yearly recommended fecal occult blood test (FOBT), which is inexpensive but often not reliable, or a colonoscopy, which is reliable but costly and must be performed at a medical facility. The colonoscopy procedure and preparation can be quite unpleasant for the patient, and it is recommended every 5-10 years. Compliance with FOBT and colonoscopy screening recommendations has been poor. There exists a market demand for a new screen that is reliable, acceptable to patients, and cost-effective. GLC's screening technology has high sensitivity and specificity, costs less than \$200 per test, requires no patient (bowel) preparation, and allows home collection – which addresses the issue of compliance.

Assuming a reimbursement of \$200 per testing, a roughly 85 million person target market, and a 3-5 year cycle between assays, GLC's maximum market opportunity for its initial product is over 3 billion dollars per year.

PRESENTING COMPANY OVERVIEWS

Milestones of Product Development

The following milestones have been achieved to develop fecal DNA testing: (1) a proprietary protocol for collecting stool in a clinical environment has been developed and validated; (2) a proprietary preservative has been developed and validated to preserve the stool DNA; (3) a large set of potential biomarkers have been systematically evaluated and a trial set of six has been selected in initial validation studies; (4) methylation analysis platform technology (MMPA) has been developed and validated; (5) key steps in the test have been optimized to maximize sensitivity, specificity, and reliability and to reduce cost; and (6) the entire process has been streamlined and made compatible with automation and scalable in a clinical environment. A clinical trial is in progress to test the performance of GLC's fecal DNA testing (to be completed by Q1 of 2011).

Competitive Advantages

Currently recommended and widely reimbursed methods for CRC screening include the fecal occult blood test (FOBT) and colonoscopy. The FOBT has variable sensitivity & specificity and very low positive predictive value. Colonoscopy has good diagnostic performance but is expensive, must be performed at a medical facility, and both the procedure and the preparation are quite unpleasant for the patient. Compared to them, GLC's CRC testing is moderate in cost, has performance metrics similar to colonoscopy (current gold standard), does not require any patient preparation, can be scheduled at the patient's convenience, and collection is performed at home. Compared to competing stool-based assays, GLC's test more cost-effective, sensitive and specific, and has enhanced compatibility with automation. GLC's fecal DNA testing for CRC screening enjoys the advantages of diagnostic accuracy, process efficiency, and patient-friendliness compared to directly and indirectly competing alternatives.

Intellectual Property

Dr. Guo is the inventor on the company's key patent application assigned to Cleveland State University (CSU). GLC has obtained an exclusive license to the covered IP from CSU. Additional patents to protect GLC's clinical specimen collection and preservation, and DNA extraction/purification, are in preparation. These and other future patents will be assigned to GLC.

Pipeline Products

The technologies developed for fecal DNA testing can be leveraged to address diagnostic and screening needs for other cancers. GLC is leveraging the technologies to develop urine DNA testing for bladder cancer screening and monitoring. Bladder cancer is the fourth most common cancer in the U.S. and the most "expensive" cancer because of its frequent recurrence which requires constant monitoring. Fluorescent in situ hybridization (FISH) and cytology are currently used to non-invasively monitor the recurrence of bladder cancer. FISH is more sensitive, but less specific than cytology. In contrast, urine DNA testing can be both highly sensitive and specific. Moreover, compared with FISH and Cytology, urine DNA testing can be much more cost-effective.



ImaginAb, Inc.
www.imaginab.com
419 Hindry Ave, Suite E
Inglewood, CA 90301

Robert Reiter, Ph.D.
Founder and Chief Medical Advisor
Telephone: 310-258-2411
robertreitermd@gmail.com

Molecular imaging agents
12:15 p.m. – 12:30 p.m.

ImaginAb, Inc. is an LA-based biotechnology company focused on developing a new class of highly targeted proteins for imaging and therapy based on engineered antibody fragments. The company was founded in October 2007 by a luminary team of oncology and imaging researchers from UCLA.

(continued)

PRESENTING COMPANY OVERVIEWS

The company is a Delaware C-Corp registered in California and received \$500,000 seed funding (convertible note) in 2007. This year, the company will generate approximately \$3 million in revenue and has \$5 to \$10 million in the business development pipeline. ImaginAb will test two of its products in humans in early 2011. ImaginAb successfully completed a NCI Phase I SBIR contract.

The Technology:

ImaginAb's protein engineering technology enables the rapid "re-design" of antibodies into human/ized fragments that retain the binding specificity of the parental antibody but are immunologically inert and kinetically optimized to clear rapidly. This is important for both clinical imaging applications (e.g. with Positron Emission Tomography) and also for creating targeted delivery systems for next generation therapeutics.

Harnessing this combination of superior specificity and kinetics enables ImaginAb to generate imaging agents that address significant unmet needs in the diagnosis of disease, enable optimized selection of appropriate therapies, and help accelerate the development of novel therapeutics. ImaginAb's technology can be used to create new targeted molecular imaging agents rapidly, at low risk and cost.

The tunable characteristics of ImaginAb's fragments have attracted the attention of pharmaceutical companies interested in therapeutic applications of engineered antibodies and the company is now engaged in early "proof of concept" work for these applications.

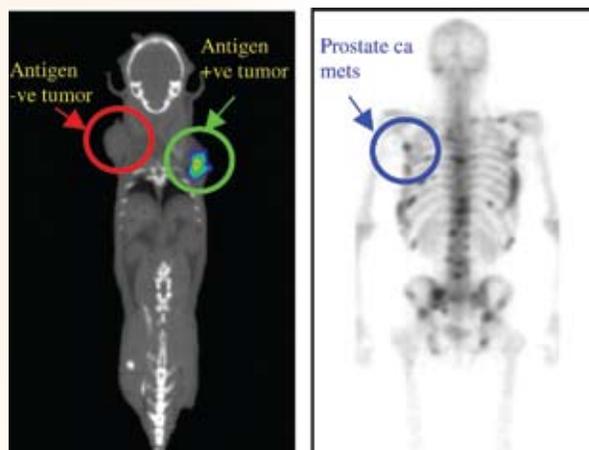
Products:

ImaginAb has successfully used its extensive IP portfolio to create three distinct product revenue streams:

- **Short term:** ImaginAb currently has seven global pharmaceutical companies as clients, including GSK, and has reformatted 10 therapeutic antibodies into rapidly clearly fragments for imaging and novel therapeutic applications. ImaginAb's technology is in considerable demand and has tremendous potential for future development and royalty revenue.
- **Medium term:** A rapidly growing and low-risk, \$25 to \$30 million opportunity for ImaginAb is molecular imaging research fragments against key targets. ImaginAb's

pre-clinical reagent products will be manufactured and distributed by GE Healthcare and others starting in early 2011.

- **Long term:** ImaginAb has developed human/ized fragments against four important targets in cancer and autoimmune diseases that reflect unmet needs in imaging (prostate, pancreatic, ovarian cancer and the imaging of T-cells). One of ImaginAb's lead products is an engineered minibody targeting Prostate Specific Membrane Antigen (PSMA), a cell surface target present on all prostate cancers. Prostate cancer alone represents an unmet diagnostic imaging market valued at >\$500MM worldwide. Construction, expression and preclinical imaging studies were completed under a Phase I SBIR contract. ImaginAb's "immunoPET" product is already being developed collaboratively with Pfizer.



ImaginAb takes antibodies against key cell surface markers for cancer and autoimmune diseases and transforms them into small targeted fragments that are inert and are Pk optimized for imaging and certain therapeutic applications. ImaginAb's clinical product portfolio is based on proven antibodies with excellent human data. (Left) pre-clinical imaging data for ImaginAb's prostate imaging agent. (Right) a typical PET scan of a cancer patient.

PRESENTING COMPANY OVERVIEWS



Imalux® Corporation

www.imalux.com

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Paul G. Amazeen, Ph.D.

Executive VP & Chief Technology Officer

Telephone: 216-502-0755, ext. 1005

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Imaging

12:00 p.m. – 12:15 p.m.

Imalux® Corporation develops and commercializes real time optical systems for site-of-care tissue imaging. Imalux's technology platform, the Niris® Imaging System is based on the Company's proprietary application of Optical Coherence Tomography (OCT) employing harmless, near-infrared light to provide real-time, high resolution, cross sectional imaging of tissue structures. The Niris Imaging Systems will be the choice for visualization of structural disruptions in epithelial lined organs where the majority (60%) of all human cancers occur.

Commercial Viability Proven through OCT Market Acceptance and Clinical Validation

The Niris technology platform is the subject of over 30 clinical studies involving approximately 1,700 patients. The uniformly positive results have been presented in more than 40 international conferences and published in over 90 peer-reviewed journal articles. Forty first generation Niris systems are currently being used worldwide to study numerous diverse clinical applications. Imalux is now developing next generation products based on feedback provided by these clinical collaborators.

Immense Market Opportunity

Imalux's Niris is expected to meet the needs of a large, new segment in the \$20 billion world-wide (\$8 billion U.S.) medical imaging market. A second generation time-domain (TD) Niris with new probe designs,

improved software and a faster scanning speed will be released in January 2011. The Niris represents a potential more than \$2 billion initial market opportunity in the U.S. and more than \$4 billion world-wide, based on management's initial target markets: Urology, Obstetrics and Gynecology and ENT/Oral Surgery/Dentistry. Clinical validation should soon be completed for several additional markets including Pulmonary and Gastrointestinal Medicine, and Orthopedics. Imalux's third generation product is a frequency-domain OCT. The "F³D Niris" will substantially increase the market opportunity by providing video rate scanning and 3D rendering. The F³D Niris technology was successfully developed by Imalux using funding from the NCI "Fast Track" SBIR Grant Number 4R44CA123920, "Video Rate Optical Coherence Tomography for Early Stage Cancer Visualization."

Significant Benefits to Patients, Hospitals, Physicians and Payors

Niris is expected to significantly improve the quality of patient care, by providing the following benefits:

- **Patients** – Due to Niris' unique imaging capabilities, patients are expected to benefit from the early detection of pre-cancers and early cancers *resulting in improved cure rates.*
- **Hospitals** – Rapid real-time site-of-care diagnosis and surgical guidance will improve cure rates, decrease the need for "second look" surgeries and improve turnaround time of surgery suites *favorably impacting costs.*
- **Physicians** – Niris will allow them to rapidly locate and diagnose potentially cancerous tissue *improving cure rates through early detection of disease and guided surgery, and improving surveillance outcomes.*
- **Payors** – Through the early detection of cancer, Niris is expected to reduce healthcare costs associated with the treatment of cancer by treating the patient at the earliest stages of disease *when cancer is most curable and less costly to treat.*

(continued)

PRESENTING COMPANY OVERVIEWS

Extensively Protected Intellectual Property

The Company's intellectual property portfolio includes 22 issued patents, 10 pending patents, other patents in process and various trade secrets.

Seasoned Management Team with Substantial Medical Device Experience

The Imalux management team in place is focused, seasoned and dedicated to the rapid and successful commercialization of the Niris technology platforms. They represent a wealth of relevant financial and corporate management experience, as well as clinical, medical research, academic and healthcare industry expertise with proven, internationally recognized abilities in biosciences, pharmaceuticals, medical devices and all modalities of healthcare imaging. Management highlights include:

- Pioneered the ultrasound products for both GE and Philips
- Completed IPO and numerous acquisitions and divestitures in medical diagnostics
- "National Institutes of Health (NIH) special expert" with extensive cancer research experience
- Led medical company public and private financings in excess of \$100 million
- Led venture backed start-up to a global public company with a market valuation in excess of \$2 billion

F³D Niris Technology Fills a Critical Market Need

Both the F³D Niris and the TD Niris enable detection and treatment of early epithelial malignancies. Niris fills a vast underserved segment of the imaging market, as detailed below:

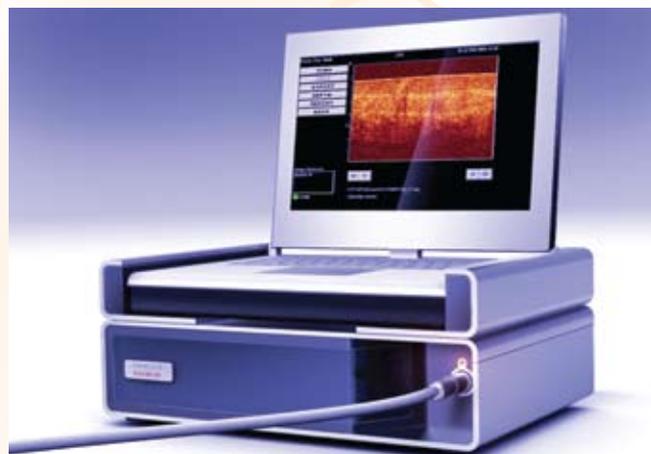
Product Overview

The F³D Niris is easily portable, designed for use by health professionals with minimal training and does not require a dedicated, highly trained staff, or a radiologist for image acquisition and interpretation.

Epithelial cancers account for approximately 60% of all human cancers. Established imaging modalities lack the resolution and tissue contrast needed to visualize early pre-cancerous and cancerous changes in epithelial tissue. Niris real-time detection of these early changes will lead to improved outcomes ...both clinical and economic.

This versatility makes the F³D Niris cost-effective to deploy in situations ranging from community-based health programs to sole-practitioners to major medical centers.

Niris cross sectional images aid the clinician by identifying stages of diseased tissue, guiding surgery and enhancing post-treatment surveillance. Niris is the first imaging technology that provides visualization with real-time calculations of tissue brightness and thickness, enabling clinicians to distinguish grades of pre-cancer (tumor staging) without requiring biopsy.



Imalux Corporation Niris® Imaging System

PRESENTING COMPANY OVERVIEWS

Kinemed

THE NEXT WAVE IN R&D™

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Scott Turner, Ph.D.
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Elizabeth J. Murphy, MD, DPhil
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Chief, Division of Endocrinology and Metabolism San Francisco
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Telephone: 510-655-6525, ext. 141
emurphy@medsfgh.ucsf.edu

***In vitro* diagnostics**
2:30 p.m. – 2:45 p.m.

Kinemed is a leader in using translational and personalized medicine for the development of drugs and diagnostics. Kinemed's unique technology reveals kinetic changes in complex *in vivo* pathways in both animals and humans. Tracking changes in kinetic pathways is essential to understanding fundamental biological processes such as cellular proliferation, the inflammatory response, axonal transport, and lipid metabolism. The Kinemed process allows for the accurate and rapid measurements of these processes on the basis of a small number of samples within short observation periods.

Kinemed has collaborated with pharmaceutical partners in the development of drugs and diagnostics for oncology, cardiometabolic, neurodegenerative, and fibrotic diseases. The company's intellectual property spans multiple therapeutic areas with 12 patents and more than 100 pending patents exclusively licensed from the University of California, Berkeley.

The company's personalized and translational medicine technology has been validated in multiple pre-clinical and clinical studies. Kinemed continues to work both independently and with pharmaceutical partners to demonstrate rapid human proof-of-concept for targeted and personalized treatments and diagnostics, while building an internal pipeline of diagnostics and drug candidates.

The Kinetic Basis of Cancer

Chronic Lymphocytic Leukemia (CLL) Biomarker

Kinemed's CLL-kinetic biomarker allows for direct measurement of Chronic Lymphocytic Leukemia (CLL)-cell birth rates in early stage disease as a prognostic marker of disease progression. CLL can be either an indolent or very aggressive disease and the decision of when to treat with chemotherapy remains a difficult one.

None of the currently used biomarkers for CLL disease are considered the gold standard; treatment decisions are based on best estimates from the results of several biomarkers. Using an oral administration of heavy water, Kinemed is able to determine cell birth rates from 2H enrichment in DNA using isotope ratio mass spectrometry and kinetic modeling thus providing a marker closely linked to the disease process itself.

CLL-cell birth rates correlate well with other current surrogate markers such as IGTV mutation status, ZAP-70, and CD38 expression. However, these correlations are not perfect and it is estimated that 75% of the variability in birth rates was not explained by correlations with those known biomarkers. This suggests significant potential for a biomarker that can provide new information. Clinical outcome data from 2.5 years of follow-up is now nearing completion.

The technology funded under the SBIR was the development of Kinemed's stable isotope technique for measuring B cell proliferation into a simplified method (suitable for clinical use) to enable the measurement of B cell kinetics in early stage CLL patients and the assessment of this method as a potential prognostic indicator of clinical outcome. The trial was designed to assess B cell proliferation in early stage, untreated CLL subjects and to correlate this to existing "gold standard" surrogate markers of disease activity and clinical outcome over a 2.5 year follow-up period.

(continued)

PRESENTING COMPANY OVERVIEWS

The impact of this test's success would be significant for patients. Current CLL disease management includes a "watch and wait" approach to treatment. A prognostic indicator of disease progression would allow clinicians to determine prognosis sooner and stratify patients accordingly, allowing the potential for earlier intervention for aggressive disease and protection from exposure to toxic agents for subjects with non-aggressive phenotypes. It would also allow a simplified, standardized way to monitor response to therapy or the assessment of novel therapeutic agents in clinical trials, all of which will directly benefit patients, providers, and researchers.

By conducting a trial in conjunction with the CLL Research Consortium (CRC), a multi-institutional program project, funded, in part, by the National Institute of Health, Kinemed has demonstrated the feasibility and power of this technique at CLL centers of excellence across the United States, and collaborated scientifically with key opinion leaders in clinical CLL. Clinical adoption of this test would be dependent on its value as a prognostic test which will be determined upon completion of the 2.5 year follow up period. However, existing tests can be operator-dependent and measure surrogate markers of disease, whereas the kinetic biomarker directly measures the cause of disease for CLL B-cell proliferation.

Potential Market

Kinemed CLL test value calculations for the U.S. market are based on annual testing for early stage disease at an estimated cost of \$5,000 per test:

- **Total Available Market:** In the U.S., 85,710 people have CLL (\$428,550,000 in potential sales).
- **Potential Available Market:** In the U.S., 15,490 new patients are diagnosed with CLL each year (\$77,450,000 in potential sales).
- **Market segment:** Eighty percent of newly diagnosed CLL cases are in early stages of the disease and require monitoring for disease progression (\$61,960,000 per year in potential U.S. sales).

Other Oncology Applications

Non-Invasive Biomarkers for Prostate Epithelial and Mammary Epithelial Cell Turnover

The same technology used for the CLL biomarker is readily applicable to other diseases of abnormal cellular proliferation. Kinemed has developed tests for the measurement of proliferation of prostate epithelial cells (PEC) and mammary epithelial cells.

eMedonline®

Leap of Faith Technologies, Inc.

www.leapoffaith.com/www.emedonline.com

23 Brink Street

Crystal Lake, IL 60014

Barbara Rapchak

Founder & CEO

Telephone: 815-356-1767

brapchak@leapoffaith.com

E-health/M-health

11:45 a.m. – 12:00 p.m.

Leap of Faith (LOF) Technologies is an e-health company commercializing its patented eMedonline® medication management system in the emerging \$1 billion hospital-based transition care market. eMedonline is a systems innovation that integrates smartphones, radiofrequency identification (RFID), and behavioral informatics to optimize medication compliance, track medication use, and extend patient care to the ambulatory setting. The system significantly improves medication compliance, facilitates transitional care, and provides actionable data mining opportunities for drug surveillance and research. It has demonstrated sustainable compliance levels of 98% along with clinically significant improvements in self-efficacy in numerous randomized control clinical trials funded by NIH and industry. The company was incorporated in 1990, and is built upon extensive research in behavioral informatics funded by \$6 million in grants and contracts from NIH.

PRESENTING COMPANY OVERVIEWS

Market Potential:

Unnecessary hospital readmissions and their associated \$17.4 billion price tag have brought significant attention to the need for transitional care. There are 39.5 million hospital discharges annually in the U.S. and the average readmission rate within 30 days is 20%. The vast majority of these readmissions are attributed to poor patient compliance. The recent Healthcare Reform Act includes penalties in reduced Medicare reimbursement for hospitals with high readmission rates, particularly within 30 days of release, saving \$26 billion over 10 years according to the Obama Administration. The Centers for Medicare and Medicaid Services is focusing on reducing 30-day readmissions for the 3.1 million patients discharged annually for pneumonia, congestive heart failure (CHF), and myocardial infarction (MI). Today, 59% of all hospitals are planning programs to reduce readmissions, and 250 to 400 hospitals are already engaged in such programs. The eMedonline system facilitates such initiatives, enhancing the quality of transitional care while reducing liability for the hospital. The annual current market potential for the eMedonline system in transition care is \$1.55 billion. Additional markets for the eMedonline system include specialty pharmacy, pharmaceutical services, and chronic disease management.

Business Model:

LOF sells its eMedonline system to hospitals, providing a turnkey service to manage patients' transition from the acute to post-acute setting. The service includes personalized telemonitoring, alerting, reporting, phones and phone service, and customer support. This turnkey service is priced at \$500 per patient for 30 days of monitoring. This pricing model is cost effective for the hospital, saving on nursing costs while enabling more cases to be handled more efficiently through eMedonline's alerting and triage system.

Technology Description:

The eMedonline system consists of a mobile device application and a web-based server application that collects data sent to it by the device about patient-specific dosing events. The server application lets clinicians view summarized results data and provides a platform for disease management and data mining. It includes a sophisticated regimen editor, medication scheduler, alerting system, e-diary editor, messaging databases, administrative utilities, and device inventory management utilities.

eMedonline can be implemented as a "smart service" that leverages RFID and barcode technology, effectively turning a cellphone into a medication sensor. Medication data read from a smart label (a label with RFID inlay) on the medication package is collected wirelessly by the phone in real time and helps verify that patients are taking the right drug at the right time while monitoring patient reported outcomes.



Competitive Advantage:

Current transitional care models frequently use a disease management approach, assigning a case worker to track and coach the patient upon discharge. Follow-up office visits are typically scheduled 14 days or more after release, the timeframe in which most readmissions occur. Of Medicare beneficiaries readmitted within 30 days, 64% received no post acute care between discharge and readmission. During this critical period, there is no system to consistently and efficiently monitor the status of the patient and provide timely feedback. eMedonline integrates the patient, caregiver, and provider into the transition care plan, providing an important touchpoint that is available 24/7. It provides real-time, automated feedback on the patient's medication compliance and overall health status, documenting compliance on a dose-by-dose basis. It also sends automatic alerts to enable early intervention in the case of missed medications or adverse events before they become a serious health risk. eMedonline delivers consistency in information to both the patient and provider—important in demonstrating due diligence and reducing liability for the provider.

(continued)

PRESENTING COMPANY OVERVIEWS

Team:

Tom Loarie has brought over 20 medical technologies to market, raising over \$200M and taking a company public. His experience includes roles as Chair & CEO Mercator MedSystems and KeraVision; COO at Novacor; and President at American Heyer-Schulte. Barbara Rapchak founded LOF and invented eMedonline based on 19 years of R&D in health and behavioral informatics funded by NIH. Jim New has 30 years executive leadership in pharma including President & CEO of Abrika Pharmaceuticals, Lifecycle Pharma, and AIKO; and Head M&A Novartis.

Achievements and Outlook:

Over 38,000 doses have been successfully administered by the eMedonline system among a variety of patient populations, age 43 to 88, taking up to 27 medications per day. Clinical studies in oncology and transition care are ongoing. Patients who use the system report that they are better able to take their medication as prescribed, get refills on time, and have a better perception of their ability to manage their medication and disease. They find eMedonline to be useful, reliable, and engaging. Product demonstrations are underway in China and Europe, illustrating that the eMedonline service can be used anywhere in the world. LOF's next major milestone is to diversify the delivery platform to include iPhone, Android, and Blackberry devices. The Company will also implement the system in other languages, extending its global reach. This will enhance the commercial potential and availability of the solution, broadening its market and impact on healthcare outcomes.

MagArray

MagArray, Inc.
www.magarray.com
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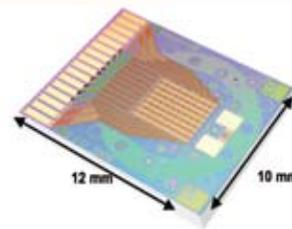
Luis Carbonell
CEO

Telephone: 408-599-1018
luis.carbonell@magarray.com

In vitro diagnostics
3:00 p.m. – 3:15 p.m.

MagArray has developed a simple, ultra-sensitive, multiplex immunoassay system for the quantitative measurement of protein biomarkers. Originally spun out of Stanford University, the MagArray system is based on a unique magnetic nanoparticle technology that was adapted from the computer disk drive industry for use in medical diagnostics. The result is a system that not only significantly outperforms current multiplex systems across a broad range of key performance characteristics but also offers unique features that are not currently available.

As part of the evolution of personalized medicine, MagArray anticipates an explosion in the demand for multiplex immunoassays in the life sciences research, clinical diagnostics, and biodefense markets. No presently available immunoassay system is equipped to meet the needs of these fast developing markets. The novel and remarkable capabilities of the MagArray assay system make it a prime candidate to facilitate and underpin the revolution in diagnostic technology presently emerging in diagnostic medicine. MagArray's vision is to become a key assay platform supplier to the molecular diagnostics field.



MagArray Chip Image

PRESENTING COMPANY OVERVIEWS

MagArray's initial focus is on cancer diagnostic assays for the research market with several additional applications under development for the clinical market. MagArray currently has working prototypes in several locations and is actively developing its system for commercial launch.

As a member of the RAPID consortium, MagArray is funded by the Biomedical Advanced Research & Development Authority (BARDA) to develop its system for the analysis of radiation exposure in civilians subjected to a nuclear event.

MagArray has demonstrated the detection of proteins such as carcinoembryonic antigen (CEA) and troponin (Tn) down to 1 pg/ mL concentrations. MagArray has also demonstrated high sensitivity and selectivity in multiplex assays where 4-20 biomarkers are detected simultaneously (PNAS, Dec. 30, 2008; *Nature Medicine*, Oct. 11, 2009). MagArray is actively developing both the bioassay chemistry and the actual hardware on which the measurements are carried out, including the giant magnetoresistive (GMR) sensor chip (Figure), the chip cartridge and the chip cartridge reader station. The GMR sensor chip features 64 sensors in an 8x8 array, which can be individually functionalized with different antibodies.

MagArray has been funded primarily by Federal grants/contracts and angel investment. The Company presently occupies 5,000 square feet of lab space in a molecular sciences incubator facility in Sunnyvale, CA, and has access to the Stanford Nanofabrication Facility on a fee-for-services basis. MagArray has exclusive licenses for all core intellectual properties developed at Stanford University, and the leaders of the company are among the pioneers of magnetic biosensors and nanotechnology with the necessary knowhow and experience to successfully commercialize this novel technology.

- Mr. Luis Carbonell, CEO & Board Member
- Dr. Shan X. Wang, Co-Founder & Board Member
- Dr. Robert L. White, Co-Founder & Board Member
- Dr. Sebastian J. Osterfeld, President
- Dr. Heng Yu, Director of Biochemistry
- Dr. Nader Pourmand, Co-founder and Director
- Dr. Ron Davis, Chair of Scientific Advisory Board

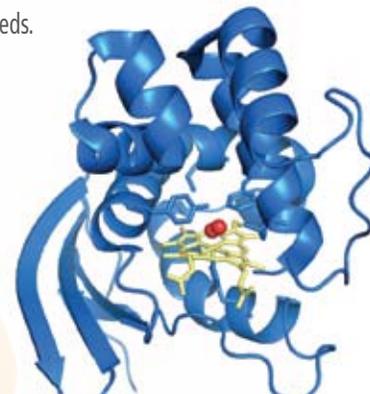
Omniox
Targeted oxygen delivery

Omniox, Inc.™
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218/219 Byers Hall, QB3
San Francisco, CA94158

Stephen Cary
CEO
Telephone: 510-333-9296
scary@omnioxinc.com

Therapeutics
9:45 a.m. – 10:00 a.m.

Omniox is a biotechnology company commercializing a tunable oxygen delivery technology with features that overcome prior failures in the field of oxygen therapeutics. A safe and effective oxygen delivery therapeutic platform that overcomes systemic or tissue ischemia and hypoxia would have a broad range of clinical applications in cancer, surgical and cardiovascular markets. Omniox' primary focus is to develop oxygen delivery vehicles that oxygenate hypoxic tumor microenvironments to enhance the efficacy of radiation therapy. The technology can be extended to applications in wound healing, cardiovascular ischemia, resuscitation, and numerous other uses to address major unmet medical needs.



Novel Tunable Gas-Delivery Platform

(continued)

PRESENTING COMPANY OVERVIEWS

Company:

Supported by a world-class team of advisors, Omnix has established laboratory operations in Mission Bay, San Francisco and is engaged in multiple collaborations with leading academic laboratories. Omnix' OMX protein-based platform was developed at the University of California, Berkeley by a team of scientists led by Professor Michael A. Marletta, the Aldo DeBenedictis Distinguished Professor of Chemistry. Professor Marletta (National Academy of Sciences and Institute of Medicine) is a pioneer in the field of gas-binding proteins, and has spent the past twenty years investigating their structure and chemistry. Prof. Marletta and his team have engineered a new class of oxygen delivery proteins with properties that can be exploited for a range of clinical applications. Omnix was founded to translate these vehicles into focused therapeutics, and has negotiated an option to be the exclusive worldwide licensee of this novel family of oxygen delivery vehicles. Omnix is currently funded through grants and seed investors.

Technology:

The OMX technology exhibits several key features: (1) tunable oxygen binding with variants spanning a millionfold oxygen affinity range; (2) neutrality towards nitric oxide (the body's natural vasodilator), and therefore expected to be non-toxic in humans, in stark contrast to the high nitric oxide reactivity and toxicity exhibited by hemoglobin-based vehicles; (3) structural and chemical stability with high production yields; (4) modular, allowing for optimization of size, viscosity, antigenicity and tissue-targeting.

Omniox oxygen delivery proteins have been shown to be stable and functional when administered intravenously, exhibit no observable toxicities up to 200 mg/kg doses, and are capable of oxygenating severely ischemic tissues as well as oxygenate deeply hypoxic regions of tumors. The unique properties of this protein class make it suitable for a large number of substantial, unmet clinical needs and open new therapeutic possibilities.

Target Market:

Oxygen enhances the efficacy of radiation therapy by prolonging the half-life of the reactive oxygen free radicals that are induced by radiation to damage DNA and ultimately kill cells. Hypoxic regions of tumors resist radiation and are notoriously aggressive – resulting in poor

patient prognoses. Needham & Company estimates that an oxygen-delivery therapy to improve radiation would command at least \$400 per radiation dose and may represent a \$3 billion to \$5 billion per year market. Oxygen delivery as an adjunct to radiation therapy for brain metastases alone is estimated at \$0.75 billion-1 billion per year. The competitive, regulatory, clinical, and reimbursement landscapes for this indication are compelling.



Presage Biosciences, Inc.

www.presagebio.com

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Jim Olson, M.D., Ph.D.

Founder and Scientific Director

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Therapeutics

10:30 a.m. – 10:45 a.m.

Presage is working to modernize cancer drug discovery and patient care by enabling, for the first time, direct comparison of multiple drugs or drug candidates simultaneously in a single solid tumor *in vitro*. A fundamental problem in cancer drug discovery is that potential drugs are initially evaluated through *in vitro* cell culture. These cell lines are dramatically different from cells within a tumor's native microenvironment. Consequently, drug responses in animal models and ultimately in patients are unpredictable, contributing to a 90% failure rate for new cancer drugs. Additionally, oncologists currently have no effective methods for predicting whether a particular patient's tumor is already resistant to a drug being considered for treatment.

PRESENTING COMPANY OVERVIEWS

Presage Technology: To address these problems, Presage has developed a commercially available drug array technology platform that determines drug activity while a tumor is still in its native microenvironment. The technology was originally developed in the laboratory of James Olson, M.D., Ph.D., at the Fred Hutchinson Cancer Research Center in Seattle, WA. Key to the platform is the utilization of a porous needle array injection device, which is inserted through the skin of an animal model or patient to create columns of candidate therapeutics directly in a solid tumor. These columns allow for the drug effects to be assessed across multiple depths within the tumor, thereby controlling for the heterogeneity of cancer cells. The device is then withdrawn. Several days later, the tumor is excised and the effect of each candidate treatment is analyzed by Presage. In contrast to all existing techniques, the proprietary Presage platform permits direct comparison of drugs with each other and with untreated tumor in the same animal model or human tumor.

What Presage Does: Presage currently works with a variety of large pharmaceutical partners and biotech companies to assess response to drugs. More specifically, Presage provides a research service in its laboratories, as its team of experienced oncology drug discovery experts collaborates with partners' scientists to develop the most suitable experimental designs. These partners provide the therapeutic agents so Presage can perform all subsequent analyses, assessing cellular response to the agent through measures of cell death, apoptosis, proliferation, and target engagement. Through these research agreements, Presage's platform provides *in vivo* data years earlier than is otherwise possible, potentially saving pharmaceutical companies from wasting their efforts on poor targets.

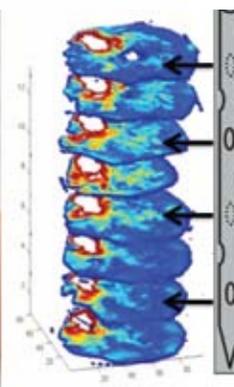
In addition to this service for drug development, Presage continues to develop its product version of the technology for clinical diagnostic use in patients, and the company anticipates conducting its first in-human studies within approximately 18 months.

Drug Development Services: Presage provides three types of services to its pharmaceutical partners:

1. **Target Validation:** Since early phase preclinical compounds are not yet optimized for pharmacokinetic properties, current processes make *in vivo* testing through systemic administration uninformative for assessment of target

engagement or tumor response. Significant financial investments in medicinal chemistry optimization are required to allow systemic delivery and subsequent *in vivo* efficacy assessment – and this can take years to get right. The Presage target validation service enables robust *in vivo* characterization of early phase drug candidates that have not yet been optimized for 'drug-like' pharmacokinetics.

2. **Drug Combination Evaluation:** Identifying drug combinations that result in U.S. Food and Drug Administration registration is a priority for leading pharmaceutical companies. Unfortunately, the false positive and false negative results generated by *in vitro* and *in silico* predictions preclude investing in human clinical trials with confidence. Full-scale *in vivo* pre-clinical studies are cost prohibitive for large combination matrices across multiple cancer types. Presage is addressing this gap by applying its *in vivo* platform that enables direct comparison of multiple combinations in single solid tumors models xenografted to mice.
3. **Target Identification through RNA Interference:** One of the key tools drug developers utilize for target ID and validation, sh or siRNA knockdown, is currently constrained to *in vitro* systems or limited tissues *in vivo*. Furthermore, key targets – such as those that interfere with microenvironment/tumor interactions – cannot be discovered *in vitro*. Presage is developing RNAi technology to generate invaluable *in vivo* data at a very early stage of target identification.



(continued)

PRESENTING COMPANY OVERVIEWS

Clinical Drug Response Diagnostic: Ultimately, Presage believes its technology will allow for identification of chemoresistance in cancer patients prior to systemic administration of drugs. This approach would enable oncologists to rule out drugs or combinations that would be ineffective for their patients, increasing the chance of successful treatment without exposing patients to side effects that have no collateral benefit. Clinical adoption is highly likely, beginning with comprehensive cancer centers, because there is no change to the patient workflow. Consultations with reimbursement experts support the realization of tremendous savings to the health care system by eliminating ineffective cancer treatment cycles and their collateral side effect management expenses.

Initially, Presage intends to focus on tumors that can be accessed percutaneously. Its first-in-man studies are planned to evaluate use in lymphoma or soft tissue sarcoma. Further, the company's Fast Track STTR was awarded to develop this application of the Presage technology.

Important Milestones:

- Incorporated in November 2008
- Closed seed round in November 2009
- Signed deals with two top five pharmaceutical companies and a Venture Capital-backed biotech
- Closed \$4 million Series A round in June 2010
- Signed lease for 7,000 square foot research laboratories and expanded operations in June 2010
- Awarded \$1.4M Fast Track STTR, with Phase 1 underway and Phase 2 anticipated to begin in winter 2010

Funding and Intellectual Property: Presage closed \$4 million in June 2010. Presage was funded by a group of private individuals, many of whom have held leadership roles in biotech, medical device, and technology companies. The company has filed international patent applications and is executing an overall intellectual property strategy covering a broad set of methods relating to its porous needle array device.



Zacharon Pharmaceuticals Inc.
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President and CEO
Telephone: 858-200-0820
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Therapeutics

10:00 a.m. – 10:15 a.m.

Zacharon Pharmaceuticals is leveraging unique glycobiology expertise to develop an entirely new class of small molecule therapeutics targeting the biosynthesis of glycans, the carbohydrate chains of glycoproteins, proteoglycans, and glycolipids. Zacharon's most advanced programs target rare forms of cancer and lysosomal storage diseases, segments with dramatic morbidity and limited treatment options. Because one glycan-targeted drug can address multiple rare diseases, Zacharon's drug development platform combines the commercial potential of blockbuster markets with the appealing features of rare disease drug development (e.g. highly predictive models, low development costs, compelling unmet need). As a result, Zacharon is uniquely positioned to capitalize on the growing interest in rare diseases displayed by large pharmaceutical companies and realize the full potential of the company's innovative glycan-targeted drug development platform.

Glycans: An Attractive but Historically Challenging Target: Based on strong preclinical and genetic evidence, targeting discrete points in glycan biosynthesis represents a highly specific and potent therapeutic strategy for cancer, lysosomal storage disease, inflammatory disease,

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THE NCI SBIR DEVELOPMENT CENTER WOULD LIKE TO THANK THE FOLLOWING ORGANIZATIONS FOR THEIR HELP IN PLANNING THIS YEAR'S INVESTOR FORUM:

San Jose BioCenter, co-host of the 2010 NCI SBIR Investor Forum, provides a new generation of specialized facilities; capital equipment; laboratory services; and commercialization support for emerging science and technology companies.

Visit: www.sjbiocenter.com

Canary Foundation is a non-profit dedicated to the goal of identifying cancer early through a simple blood test and then isolating it with imaging. Visit: www.canaryfoundation.org

Feinstein Kean Healthcare is a communications consulting firm, providing a full range of services to the life science and healthcare industry for over 20 years. Visit: www.fkhealth.com

The Molecular Imaging Program at Stanford brings together scientists and physicians developing and using state-of-the-art imaging technology and developing molecular imaging assays for studying intact biological systems. Visit: <http://mips.stanford.edu>

THE NCI SBIR DEVELOPMENT CENTER WOULD LIKE TO THANK THE FOLLOWING PRESENTING COMPANY REVIEWERS AND MENTORS FOR THEIR HELP:

Aaron Sandoski +	Norwich Ventures	Kristina Burow +	ARCH Ventures Partners
Alex DeWinter +	Mohr Davidow Ventures	Melinda Richter *	San Jose BioCenter
Anna Williamson +	Genentech	Martin Eglitis * +	Teva Innovative Ventures
Anu Sharma +	Siemens	Mir Imran +	DFJ InCube Ventures
Avi Spier *+	Genomics Institute of the Novartis Research Foundation	Nola Masterson *	Science Futures Inc.
Caspar DeClerq +	US Venture Partners	Peter Heineke *	Xalud Therapeutics
Chelsea Hewitt*	San Jose Biocenter	Rob Sarisky +	Johnson & Johnson
Dan Watkins +	DFJ Mercury	Russ Lebovitz +	DFJ Mercury
David Neustaedter +	Covidien Ventures	Sarah Bodary +	SV Life Sciences
Desmond Raitt * +	Bay Biotech Consulting	Scott Iyama * +	Orrick
Josh Bilenker +	Aisling Capital	Thorsten Melcher +	Varian Biosynergy
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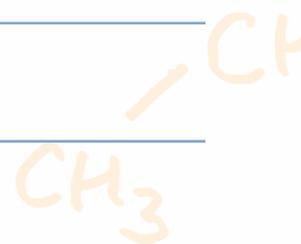
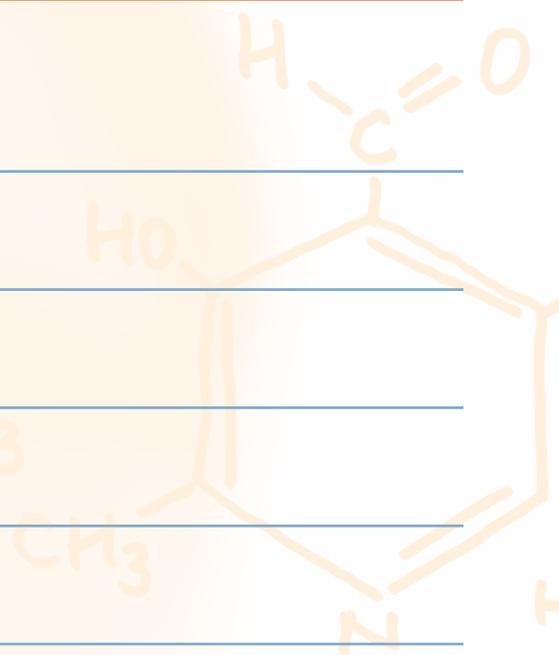
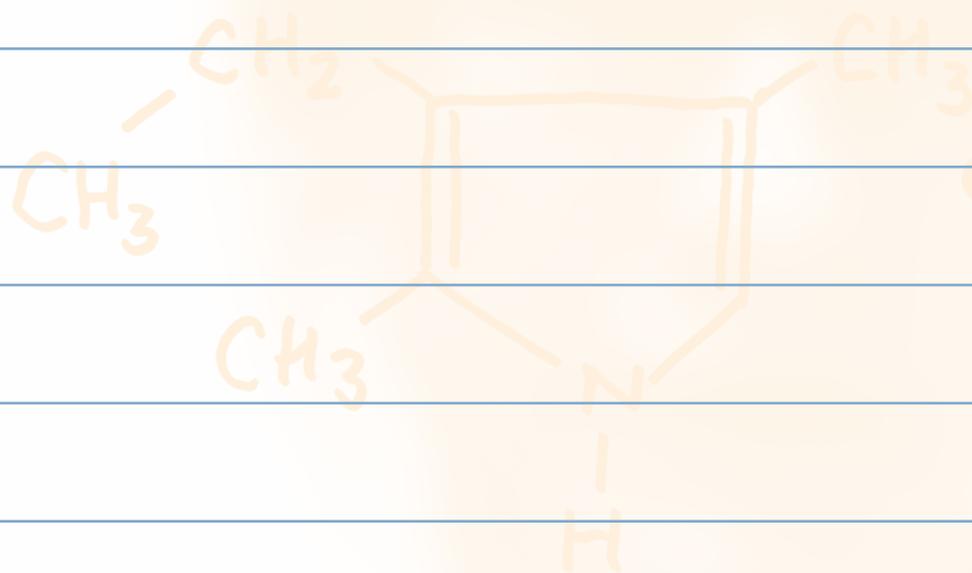
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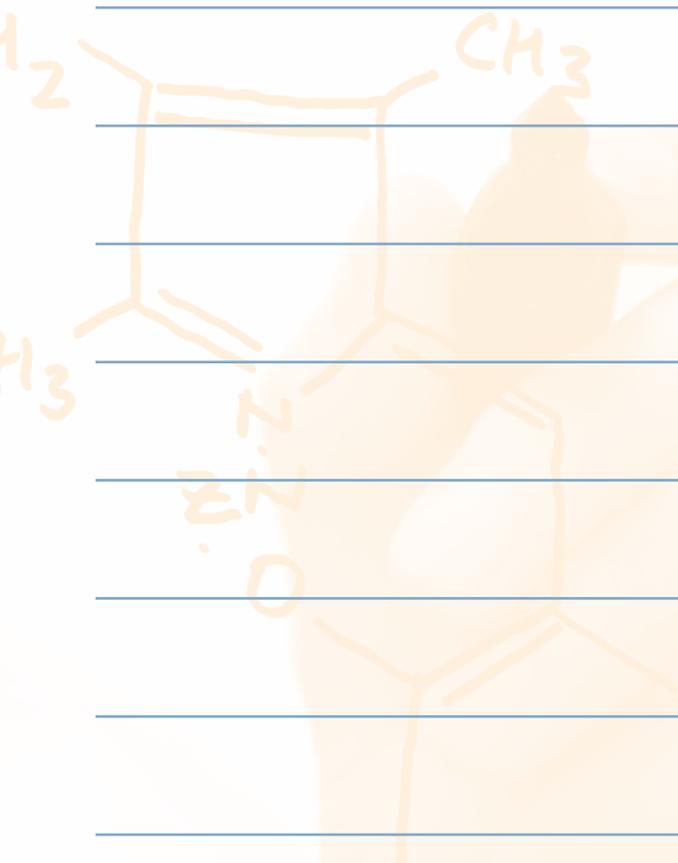
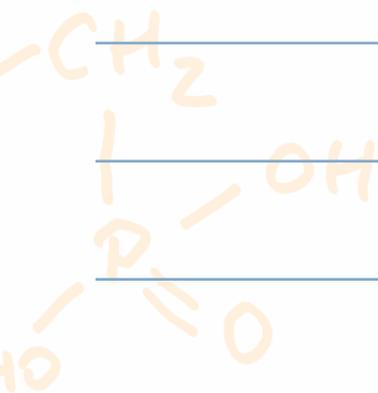
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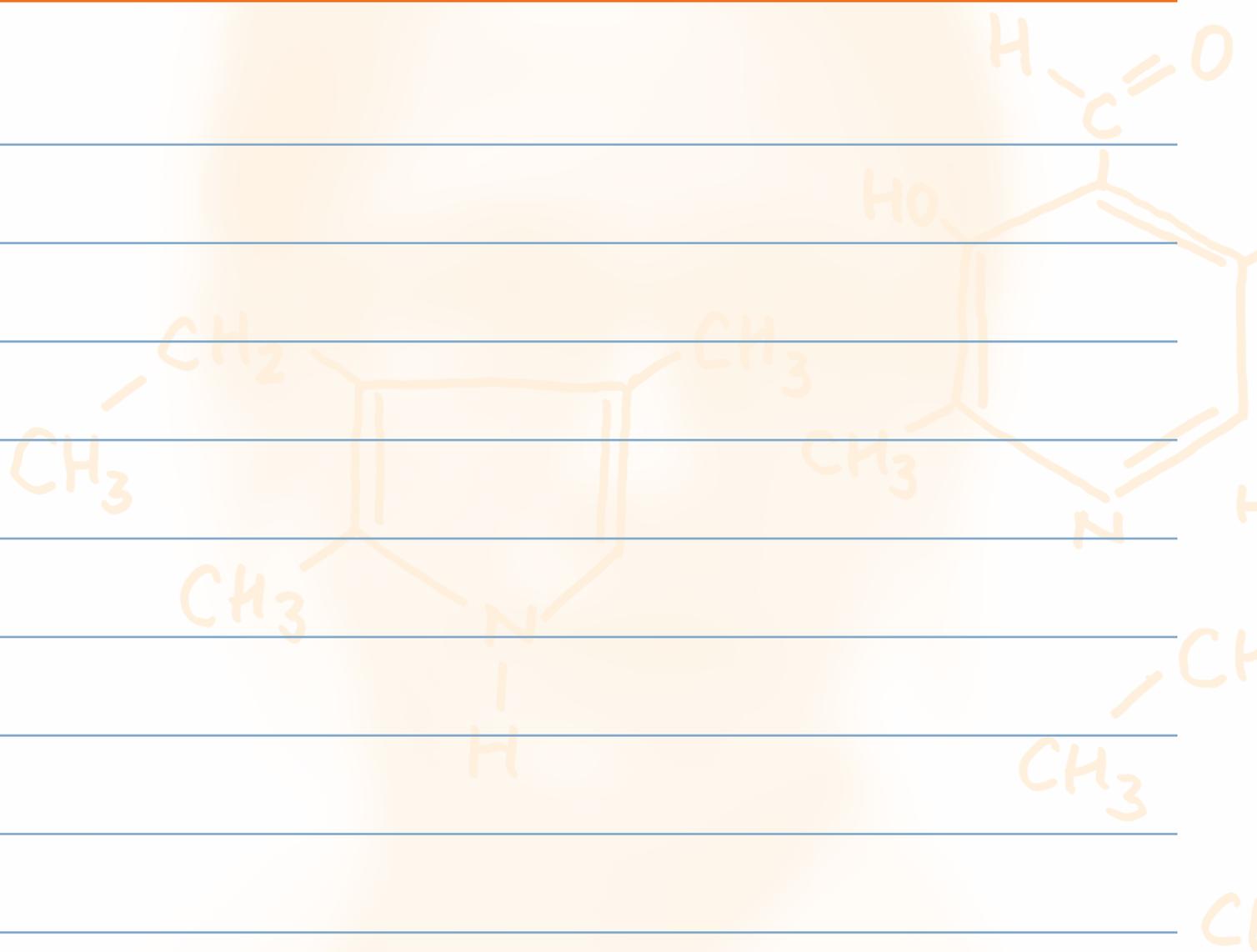
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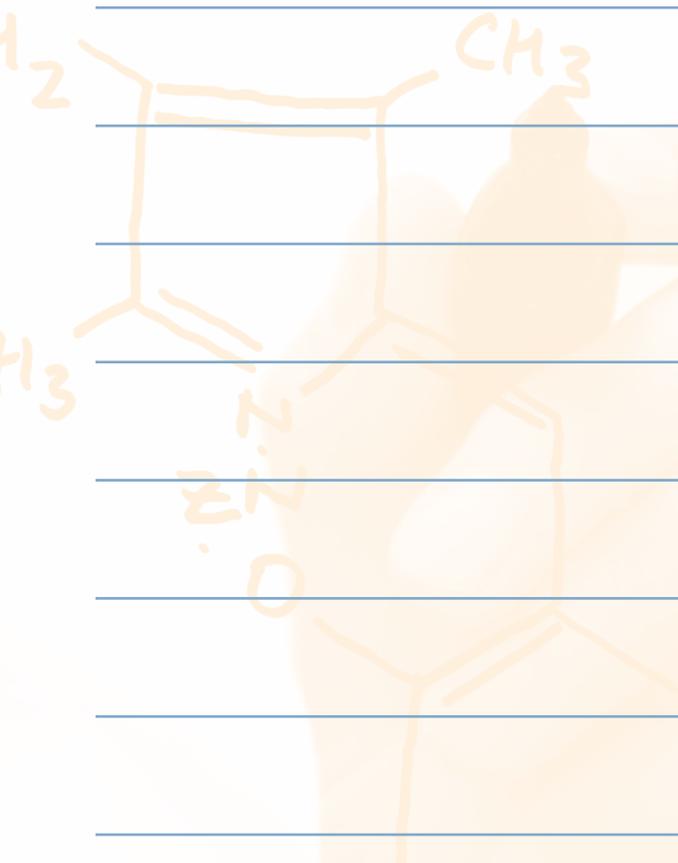
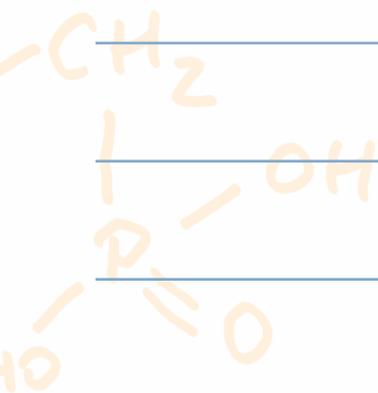
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