

**Biotechnology Colloquium**

at the I.I.B.E.A.A.

FOUNDATION FOR BIOMEDICAL RESEARCH

ACADEMY OF ATHENS

**Strategic Choices in Biotechnology:
Broad Technology Platforms or Targeted Drug Development Projects?**

Athens, Wednesday 11 July 2007

Program

09:00 – 09:30	Registration At the I.I.B.E.A.A. auditorium entrance hall
09:30 – 09:45	Opening Remarks <i>Prof. Grigorios Skalkeas and Prof. Spyros Artavanis-Tsakonas</i>
09:45 – 11:30	Case Studies – Moderator: Stelios Papadopoulos Exelixis Inc: Building a Broadly Enabling Drug Discovery Engine <i>(George Scangos)</i> Infinity Pharmaceuticals Inc: Racing a Portfolio of Cancer Drugs through the Clinic <i>(Steven Holtzman)</i> Alnylam Pharmaceuticals Inc: Turning siRNA into a Novel Therapeutic Modality <i>(John Maraganore)</i> Vanda Pharmaceuticals Inc: Matching Drugs to Appropriate Patient Populations <i>(Argeris Karabelas)</i>
11:30 – 12:00	Coffee Break
12:00 – 13:15	Round Table Discussion with Panelists and Audience Moderator: <i>Stelios Papadopoulos</i> Panelists: <i>George Scangos, Steven Holtzman, John Maraganore, Jerry Karabelas</i> The panelists will discuss many issues, including: <ul style="list-style-type: none">• The risk/reward trade-offs in building broadly enabling platforms vs. pursuing selected targeted projects• The ability to use strategic alliances to finance growth in each case• The unique management challenges in each case• The ability to finance either model in the private venture capital market• The appetite of public investors for platforms or products
13:15 – 13:30	Closing Remarks <i>Prof. Spyros Artavanis-Tsakonas</i>

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Panelists

Spyros Artavanis-Tsakonas, PhD is a Professor at the Harvard Medical School in the Department of Cell Biology, where he recently moved his laboratory. From 1998 until 2007 he was the K. J. Isselbacher- P. Schwarz Professor and the Director of Developmental Biology and Cancer at the Massachusetts General Hospital Center for Cancer Research. He also holds the Chair of Developmental Biology and Genetics at the Collège de France. From 1990 until 1998 Dr. Artavanis-Tsakonas was a Professor in the Departments of Cell Biology and Biology, and Director of the Molecular and Developmental Neurobiology Program of the Boyer Center of Molecular Medicine at Yale University School of Medicine. While at Yale, he served also as the Director of the Biological Sciences Division and was a Howard Hughes Medical Institute Investigator.

Dr. Artavanis-Tsakonas holds a Masters Degree in Chemistry from the Eidgenössische Technische Hochschule (ETH) in Zurich where he did his Diploma work with Vladimir Prelog and a Ph.D. from Cambridge University, England for work carried out at the Medical Research Council Laboratory of Molecular Biology in the division of Fred Sanger under Ian Harris. He did postdoctoral studies with Walter Gehring in Basel and David Hogness in Stanford.

Dr. Artavanis-Tsakonas is a founder and member of the Scientific Advisory Board of Exelixis Pharmaceuticals Inc., Cellzome GmbH and Anadys Pharmaceuticals, Inc. He is also a founder and is the Chairman of the board of Fondation Santé a non profit organization devoted to health issues. He is a member of the American Academy of Arts and Sciences, corresponding member of the Academy of Athens, a member of the Cambridge Philosophical Society, and a member of several professional societies.

Steven H. Holtzman is a founder as well as the Chairman and Chief Executive Officer of Infinity Pharmaceuticals, Inc. Located in Cambridge, MA, Infinity is an innovative cancer drug discovery and development company that leverages its strength in small molecule drug technologies to bring important new medicines to patients. From early 1994 until 2001, Mr. Holtzman served as the Chief Business Officer of Millennium Pharmaceuticals, Inc. a pioneer in the development and application of modern genetic and genomic technologies to drug discovery.

Prior to joining Millennium and starting in 1986, Mr. Holtzman was a founder and the Executive Vice President of DNX Corporation, the first commercial enterprise devoted to the development of agricultural, biomedical and pharmaceutical applications of transgenic (genetically engineered) animal technology. Prior to DNX, in the early 1980's, Mr. Holtzman conceived of and was the founding Executive Director of the Ohio Edison Program, the nation's first state government program directed at achieving economic development through funding young technology-based ventures and university/industry collaborative research and development efforts. In the late 1970's, he was an instructor and tutor in moral philosophy and the philosophy of language at Corpus Christi College, Oxford University, U.K.

Mr. Holtzman co-founded and from 1995 until 2000 was the Co-Chair of the Biotechnology Industry Organization (BIO) Bioethics Committee. From 1996 to 2001, he served as a presidential appointee to the National Bioethics Advisory Commission, the principal advisory body to the President of the United States and Congress on ethical issues in the biomedical and life sciences. He is a member of the Board of Directors of Anadys Pharmaceuticals, Inc., a Vice Chairman of the Board of Trustees of The Hastings Center for Ethics and the Life Sciences and a Trustee of the Berklee College of Music. Mr. Holtzman received his BA in Philosophy from Michigan State University and his BPhil graduate degree in Philosophy from Oxford University, which he attended as a Rhodes Scholar.

Argeris Karabelas, PhD has had a distinguished career at senior levels in the global pharmaceuticals industry. He was Chief Executive Officer of Novartis Pharma and prior to that Executive Vice President of Worldwide Pharmaceuticals at SmithKline Beecham. He is currently a Partner of Care Capital LLC, a specialist US healthcare venture capital investment fund, and is Chairman of a number of pharmaceutical and healthcare companies, including Human Genome Sciences, SkyePharma, Vanda, NitroMed, and Inotek. Dr. Karabelas is also a Board Member of Minster and Renovo.



John Maraganore, PhD is President and CEO of Alnylam Pharmaceuticals, Inc. which he joined in December 2002. Prior to Alnylam and from 1997-2002, he served as an officer and a member of the management team for Millennium Pharmaceuticals, Inc. As Senior Vice President, Strategic Product Development for Millennium, he was responsible for the company's product franchises in Oncology, Cardiovascular, Inflammation and Metabolic Diseases. He was previously Vice President, Strategic Planning and M&A and prior to that he was General Manager of Millennium BioTherapeutics, Inc., a former subsidiary of Millennium. Before Millennium and from 1987-1997, he served as Director of Molecular Biology and Director of Market and Business Development at Biogen, Inc. At Biogen, Dr. Maraganore invented and led the discovery and development of Angiomax™ (formerly Hirulog™) currently marketed by The Medicines Company. Prior to Biogen, Dr. Maraganore was a scientist at ZymoGenetics, Inc., and the Upjohn Company. Dr. Maraganore received his M.S. and Ph.D. in biochemistry and molecular biology at the University of Chicago. Dr. Maraganore serves as a Director of Archemix, Inc. and MacroGenics, Inc. He also serves as a Board member of BIO, the Biotechnology Industry Organization.

Stelios Papadopoulos, PhD retired as Vice Chairman of Cowen & Co., LLC in August 2006 after six years with the firm where as an investment banker he focused on the biotech and pharma sectors. Prior to joining Cowen, he spent 13 years as an investment banker at PaineWebber, Incorporated where he was most recently Chairman of PaineWebber Development Corp., a PaineWebber subsidiary focusing on biotechnology. He joined PaineWebber in April 1987 from Drexel Burnham Lambert where he was a Vice President in the Equity Research Department covering the biotechnology industry. Prior to Drexel, he was a biotechnology analyst at Donaldson, Lufkin & Jenrette.

Before coming to Wall Street, Dr. Papadopoulos was on the faculty of the Department of Cell Biology at New York University Medical Center. He continues his affiliation with NYU Medical Center as an Adjunct Associate Professor of Cell Biology. Dr. Papadopoulos holds a Ph.D. in biophysics and an M.B.A. in finance, both from New York University.

Dr. Stelios Papadopoulos is a co-founder and chairman of the Board of Directors of Exelixis, Inc., and he is a co-founder and member of the Board of both, Anadys Pharmaceuticals, Inc. and Cellzome, Inc. He is co-chairman of the Board of Directors of BG Medicine, Inc. and a member of the Scientific Advisory Board of Symphony Capital. In the not-for-profit sector, Dr. Papadopoulos is a co-founder and Chairman of Fondation Santé and a member of the Board of Visitors of Duke University Medical Center.

George A. Scangos, PhD is President and Chief Executive Officer of Exelixis, Inc. since October 1996. Dr. Scangos received a B.A. in Biology from Cornell University, a Ph.D. from the University of Massachusetts, and was a Jane Coffin Childs Postdoctoral Fellow in the laboratory of Dr. Frank Ruddle at Yale University. While in Dr. Ruddle's laboratory, Dr. Scangos, together with Dr. Jon Gordon, were the first to generate a transgenic mouse. Dr. Scangos then joined the faculty of The Johns Hopkins University, where he currently holds a position as Adjunct Professor. While at Johns Hopkins, Dr. Scangos' laboratory was one of the first to demonstrate that homologous recombination could occur in mammalian cells.

Dr. Scangos left Johns Hopkins in 1986 to work for Bayer Corporation, where he held several positions, including Senior Vice President of Research and Development for Bayer's pharmaceutical division, and then President of Bayer Biotechnology, where he led an integrated group focused on discovery, development, and manufacture of biological products.

Dr. Scangos currently serves as Chairman of Anadys Pharmaceuticals, and is on the Board of Entelos, Inc. Dr. Scangos is a member of the Board of Visitors of the University of California, San Francisco School of Pharmacy, the Board of Overseers of the University of California, Davis School of Medicine, and the Advisory Board for the Cornell University Life Sciences Initiative. Dr. Scangos also serves as a member of the Board of the Global Alliance for TB Drug Development.

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Contact Information:

For more information about Fondation Santé and our activities, please contact:

info@fondationsante.org

Tel.: + 30 210 6754 831, Fax: + 30 210 6710 666

[**www.fondationsante.org**](http://www.fondationsante.org)

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