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THE INSTITUTE FOR VENTURE SCIENCE

INAUGURAL SYMPOSIUM

SEPTEMBER 25TH 2015

THE UNIVERSITY OF WASHINGTON, SEATTLE



OUR MISSION

The Institute for Venture Science (IVS) will fund high-risk, non-traditional scientific inquiries that may produce fundamental breakthroughs *in thinking*. We will identify the most promising challenges to prevailing paradigms, then simultaneously fund multiple research groups worldwide for each selected challenge. More than ever, the world needs revolutionary breakthroughs to break the logjam of existential crises that threaten our survival. By fostering breakthroughs, the IVS seeks to enrich the world with fresh vision, and help create viable solutions for today's seemingly intractable problems.

Inaugural Symposium Agenda
 September 25, 2015
 University of Washington Club
 Seattle, Washington
 9:30 AM – 5:00 PM

9:30 – 10:00	Arrival and light refreshments	
10:00 – 10:05	Dr. James Ryder	Opening Remarks and welcome by Chairman of the Board of Directors
10:05 – 10:20	Dr. Gerald Pollack	Overview of The Institute for Venture Science
10:20 – 11:05	Dr. Barry Marshall	Presentation - Q & A moderated by Mr. Frank Costanzo
11:05 – 11:50	Dr. Luc Montagnier	Presentation - Q & A moderated by Dr. Beverly Rubik
11:50 – 12:35	Luncheon Buffet	
12:35 – 12:45	Dr. James Ryder	Acknowledgement of contributors and volunteers
12:45 – 13:30	Dr. Stephanie Seneff	Presentation - Q & A moderated by Dr. James Ryder
13:30 – 13:45	Break	
13:45 – 14:30	Dr. William Bengston	Presentation - Q & A moderated by Dr. Karin Seidler
14:35 – 14:50	Dr. Gerald Pollack	Q & A discussion of the mission and needs of The Institute for Venture Science
14:50 – 15:00	Dr. James Ryder & Mr. Frank Costanzo	Presentation of future plans and introduction of Mr. Harold Graham
15:00 – 17:00	Social Time - Music by Maracujá	



Dr. Barry Marshall

Dr. Barry Marshall is an Australian physician and Nobel Laureate for his work in determining that a type of bacterium known as *Helicobacter pylori* is the cause of most peptic ulcers. This discovery overturned years of belief that ulcers were caused predominately by stress, spicy food and excessive acid. This also led to further understanding and treatment for stomach cancer. Marshall obtained his Bachelor of Medicine from Newman College and his Bachelor of Surgery from the University of Western Australia. He is currently a professor of clinical microbiology at the University of Western Australia.



Dr. Luc Montagnier

Dr. Luc Montagnier graduated in both Medicine and Biological Sciences at the University of Paris. Within the new Department of Virology at the Institut Pasteur in Paris, he founded the Viral Oncology Research Unit. In 1983, Dr. Montagnier led the team which first isolated the Human Immunodeficiency Virus (HIV1), a new type of retrovirus previously unrecognized in humans and brought the first evidence that this virus was the causative agent of AIDS. In 1985, he also isolated the second AIDS virus, HIV2, from West African patients. Besides his involvement in the design of new types of HIV vaccines, Dr. Montagnier's current studies are aiming at the diagnosis and treatment of microbial, viral, and epigenetic factors associated with cancers, neurodegenerative and articular diseases, using innovative technologies. In 2008, Dr. Montagnier was awarded the Nobel Prize for Physiology and Medicine, for his discovery of HIV, together with Dr. Françoise Barre-Sinoussi. Dr. Montagnier is the author or co-author of 350 scientific publications and of more than 750 patents.

Dr. Stephanie Seneff

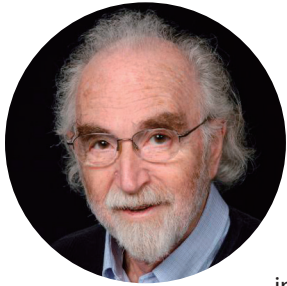


Dr. Stephanie Seneff is a Senior Research Scientist at the MIT Computer Science and Artificial Intelligence Laboratory. She received the B.S. degree in Biophysics in 1968, the M.S. and E.E. degrees in Electrical Engineering in 1980, and a Ph.D in Electrical Engineering and Computer Science in 1985, all from MIT. For over three decades, her research interests have always been at the intersection of biology and computation: developing a computational model for the human auditory system, understanding human language so as to develop algorithms and systems for human computer interactions, as well as applying natural language processing (NLP) techniques to gene predictions. She has published over 170-refereed articles on these subjects. In recent years, Dr. Seneff has focused her research interests back towards biology. She is concentrating mainly on the relationship between nutrition and health. Since 2011, she has written over a dozen papers (7 as first author) in various medical and health-related journals.

Dr. William Bengston



Dr. William Bengston (Bill) is a professor of sociology at St. Josephs College in New York, U.S.A. He received a Ph.D. from Fordham University, New York, in 1980. His "day job" areas of specialization include research methods and statistics. For many years, Bill has conducted research into anomalous healing, and has proven the effectiveness of his technique in 10 controlled animal experiments conducted in 5 university biological and medical laboratories. His healing research has produced the first successful full cures of transplanted mammary cancer and methylcholanthrene induced sarcomas in experimental mice by laying-on-of-hands techniques that he helped to develop. He has also investigated assorted correlates to healing such as geomagnetic micropulsations and EEG harmonics and entrainment. Dr. Bengston has publications in the *Journal of Scientific Exploration*, the *Journal of Alternative and Complementary Medicine*, and *Explore*.



Executive Director
Dr. Gerald Pollack

Dr. Gerald Pollack received a PhD in biomedical engineering from the University of Pennsylvania in 1968. He then joined the University of Washington faculty and is now professor of Bioengineering, and also editor-in-chief of the journal *WATER*. Pollack's academic interests have ranged broadly, from biological motion and cell biology to the interaction of biological surfaces with aqueous solutions. Dr. Pollack received an honorary doctorate in 2002 from Ural State University in Ekaterinburg, Russia, and was more recently named an Honorary Professor of the Russian Academy of Sciences as well as Academician and foreign member of the Srpska Academy. Dr. Pollack is a Founding Fellow of the American Institute of Medical and Biological Engineering and a Fellow of both the American Heart Association and the Biomedical Engineering Society. He has recently received an NIH Director's Transformative R01 Award. He was the 2012 recipient of the Prigogine Medal for thermodynamics. Most recently he received the World Academy of Neural Therapy's "Scientific Excellence Award" and the Dinsdale Prize from the Society for Scientific Exploration.

Beginning more than a decade ago, Pollack has involved himself in the process of doing science. He began by organizing letter-writing campaigns to the National Science Foundation (NSF) and the National Institutes of Health (NIH) to open the doors of those institutions to unconventional approaches. Out of these campaigns came the NSF "Frontiers in Biomedical Research" program, and an NIH workshop that eventually led to the NIH Director's Pioneer Award. A paper describing some of the proposals is available in a paper entitled: *Revitalizing Science in a Risk-Averse Culture: Reflections on the Syndrome and Prescriptions for its Cure* (Pollack, 2005). More recently, Pollack served as an external advisor to the National Science Board (which governs NSF and reports to the US President) in their task force on transformative science. Recommendations of that body led to a heightened awareness of the need for transformative programs at NSF: the term "transformative" now runs deeply through the Foundation. Again, recommendations from this workshop have begun opening the NIH to dealing more seriously with transformative ideas. Dr. Pollack also served as member of the US-Israel Binational Science Foundation's Transformative Science Program, and then as chair. With his unusually diverse scientific background and deep interest in restoring the scientific enterprise to the highly creative and productive endeavor it once was, Dr. Pollack's energies are now focused on bringing the Institute for Venture Science into full realization.

Chairman of the Board
Dr. James Ryder



Dr. James Ryder served for 38 years in a broad range of management and technical positions at the Lockheed Martin Corporation. During his distinguished career he held positions of Vice President, Director, Manager, Program Manager, Principal Investigator, and scientist/engineer in a range of aeronautics and space applications from aircraft (e.g. L1011, F22, Skunk Works), to rockets and missiles (e.g. space shuttle main engines, FBM, THAAD), to spacecraft (classified and unclassified defense systems and for NASA). Dr. Ryder holds a Ph.D. in theoretical and applied mechanics, an M.S. in engineering mechanics, and a B.S. in theoretical and applied mechanics, all from the University of Illinois. His technical contributions and publications (>30 in open literature; numerous classified) have been in several areas: structural durability and damage-tolerance analysis; optical materials; development and analysis of materials; and sensor instrumentation. He has been an adjunct professor, has taught graduate courses and short courses, has served on numerous advisory panels, review boards, committees, and conference committees, and has served on organizations furthering the teaching of science and technology.

Chief Executive Officer
Frank Costanzo



Mr. Costanzo serves as the Chief Executive Officer of the International Science Foundation. An experienced businessman, corporate executive and political consultant, Mr. Costanzo has advised and managed start-up and turnaround business situations. He has a keen interest in science and in guiding non-profit organizations. Mr. Costanzo holds a B.A. in Philosophy from St. Bonaventure University and a M.A. in Education and Humanities from Kean University. Mr. Costanzo has had a long and varied career in international business, has served with distinction in the US Army and served as a Senior Advisor on Presidential and Congressional campaigns.



Anousheh Ansari

Anousheh Ansari is known as the first female private space explorer after her historic flight on September 18th 2006 to the international space station. She is also the first astronaut of Iranian decent. She holds a B.A. in electronic and computer engineering from George Mason University and a master's degree in electrical engineering from George Washington University. Additionally she was awarded an honorary doctorate from the International Space University. She is currently the co-founder and chairman of Prodea Systems, a digital lifestyles technology company and has founded other successful telecom businesses. Mrs. Ansari is a member of many elite science advisory boards including the X Prize Foundation's Vision circle and Board of Trustees. She works now to enable social entrepreneurs and bring about radical change through out the world.



Dr. Michael Crosby

Dr. Michael Crosby is currently the President and CEO of the Marine Laboratory and Aquarium (MOTE) in Sarasota, FL. He has held a number of prestigious positions including Executive Director of the National Science Board, and Senior Advisor for International Science Policy at the National Oceanic and Atmospheric Administration (NOAA). He has actively worked throughout his career to further international interdisciplinary work and helped to develop science policy and programs within the USA. He has also served as a panelist and reviewer for numerous scientific journals. He holds a PhD from the University of Maryland and a B.S. and M.S. from Old Dominion University.



Dr. Peter Katona

Dr Peter Katona has spent his career immersed in the academic and research field of biomedical engineering. He began with studies in electrical engineering within which he holds a B.S. from the University of Michigan and a M.S. and ScD from MIT. He has held many academic positions including professor and chairman of the Department of Biomedical Engineering at Case Western Reserve University. He has also served as the Program Director for Biomedical Engineering and Aiding the Disabled at the National Science Foundation followed by an appointment as the President and CEO of the Whitaker Foundation, a privately funded biomedical research and education institute. He is currently positioned as a Professor of Electrical and Computer Engineering at George Mason University and is a fellow of numerous professional organizations including the American Association for the Advancement of Science.



Dr. Jon Strauss

Dr. Jon Strauss has held numerous prestigious positions in administrative academia. He is currently the President of Manhattanville College in Purchase, NY, and has served as president or vice president of 5 other universities and colleges including Harvey Mudd College and Worcester Polytechnic Institute. In the midst of this academic career, he also worked as the Chief Financial Officer for the Howard Hughes Medical Institute. He began his academic journey with B.S. and M.S. degrees in physics, culminating in a PhD in electrical engineering from the Carnegie Institute of Technology. He also played a crucial role in the foundation of the Responsibility Center Management, a decentralized management approach developed at the University of Pennsylvania.



Alexander Konovalov

Alexander Konovalov is the Rector of the Kazan State University and Director of Alexander Arbuzov Institute of Organic and Physical Chemistry of Kazan Research Center within the Russian Academy of Science. He has made significant contribution to the fields of thermo-, stereo-, and electrochemical research. He also holds a number of esteemed positions including chairman of the Research Council for Organic and Organoelemental Chemistry in the Russian Academy of Sciences. He has been honored and awarded various state prizes including the Golden Medal from Tatarstan Academy of Sciences for Achievements in Science. He holds both a PhD and Masters degree in Chemistry from Kazan State University.



Barry Marshall

Barry Marshall is an Australian physician and Nobel Laureate for his work in determining that a type of bacterium known as *Helicobacter pylori* is the cause of most peptic ulcers. This discovery overturned years of belief that ulcers were caused predominately by stress, spicy food and excessive acid. This also led to further understanding and treatment for stomach cancer. Marshall obtained his bachelor of medicine from Newman College and his Bachelor of Surgery from the University of Western Australia. He is currently a professor of clinical microbiology at the University of Western Australia.



Kary Mullis

Kary Mullis is a Nobel Prize winning biochemist who is best known for his work optimizing the polymerase chain reaction (PCR) technique. PCR allows biochemists to amplify specific sequences of DNA, Mullis helped to establish this practice as a standard in biochemical research. He holds a bachelor's degree in chemistry from Georgia Institute of Technology and a PhD in biochemistry from University of California Berkeley. He currently works as a research scientist at the Children's Hospital Oakland Research Institute.



Stane Pejovnik

Stane Pejovnik is the Laboratory Head and professor of Material Science at the University of Ljubljana in Slovenia. He served as the President/Rector of the University from 2009-2013. Previous to that he was the Director of the National Institute of Chemistry in the Laboratory for Materials and Electrochemistry. He is most known for his work on electrochemical materials and energy storage. He received his PhD in Chemistry and Materials Science Engineering from the University of Ljubljana.



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“Almost every major revolutionary breakthrough had some thinkers who rejected it as *crackpot* at first.”

-Frank J. Sulloway, historian and sociologist of science

20 Examples:

Copernican revolution

Hutton's theory of the earth (modern geology, deep time, gradual)

Evolution before and after Darwin

Bacon and Descartes -scientific method

Harvey and blood circulation

Newtonian celestial mechanics

Lavoisier's chemical revolution

Glaciation theory

Lyell and geological uniformitarianism

Planck's Quantum hypothesis

Einstein and general relativity

Special relativity

Continental drift

Indeterminacy in physics

Refutation of spontaneous generation

Germ theory

Lister and antiseptics

Semmelweis and puerperal fever

Epigenesis theory

Devonian controversy