



New Jersey Inventors Hall of Fame Awards Banquet

Thursday, October 27, 2011

New Jersey Inventors Hall of Fame Co-Sponsors:





Greenberg Traurig, LLP

Greenberg Traurig, LLP is an international law firm with approximately 1800 attorneys and governmental affairs professionals in 33 locations in the United States, Latin America, Europe and Asia. The firm was selected as the 2007 USA Law Firm of the Year by Chambers and Partners.

At GT, we know our clients' businesses and offer them a highly entrepreneurial approach to legal counsel. Our multidisciplinary legal team offers a wide range of legal advice and services to clients ranging from *Fortune* 500 companies to today's most innovative start-ups in fields like intellectual property and technology, biotechnology, healthcare, and medical devices, among many others.

GT understands the needs and challenges that are born from bright ideas. That's why we're with our clients through all stages of development - from initial business formation through venture capital financing, mergers and acquisitions, or private placements and public offerings. We help our clients navigate so they can turn their bright ideas into reality.





Stevens Institute of Technology

Since its early days in the late 1800s Stevens Institute of Technology (“Stevens”) has been in the forefront of innovation and entrepreneurship. Its founder, Edward Augustus Stevens was born into a family of inventors and entrepreneurs that turned their inventions into successful businesses and put the first steam-driven locomotive on tracks in this country in 1826. Consistent with its tradition in innovation and entrepreneurship Stevens implemented Technogenesis® in the mid 90’s with the objective of changing the traditional university technology transfer process by creating an environment that recognizes and rewards innovation and promotes intellectual property exploitation with faculty and students being the key players.

Technogenesis® refers to an “educational environment, where students, faculty and industry jointly nurture new technologies from concept to marketplace realization”. This was the beginning of a long term initiative to bring about a cultural shift within the academic community that will (i) introduce the concept of entrepreneurship in undergraduate and graduate education and (ii) transform the traditional technology transfer process into a technology driven innovation exploitation process. The Office of Academic Entrepreneurship (OAE) addresses the need to radically change the process of technology commercialization in a university environment. The OAE aims to foster and exploit technology driven innovations that are either adopted by the industry or serve as basis for creating new ventures.

ABOUT OUR CO-SPONSORS:



ORDER OF CEREMONIES

WELCOME

Gertrude M. Clarke, Ph.D., President, NJIHoF

*Greetings to Former NJIHoF Inductees — Recent Recipients
of the National Medal of Technology and Innovation*

PRESENTATION OF AWARDS

Leslie Avery, Vice President, NJIHoF

Graduate Student Awards

Advancement of Invention Award

Innovators Awards



DINNER

PRESIDENT'S MESSAGE

Gertrude M. Clarke, Ph.D., President

Congratulations from Governor Chris Christie

PRESENTATION OF AWARDS

Inventors of the Year

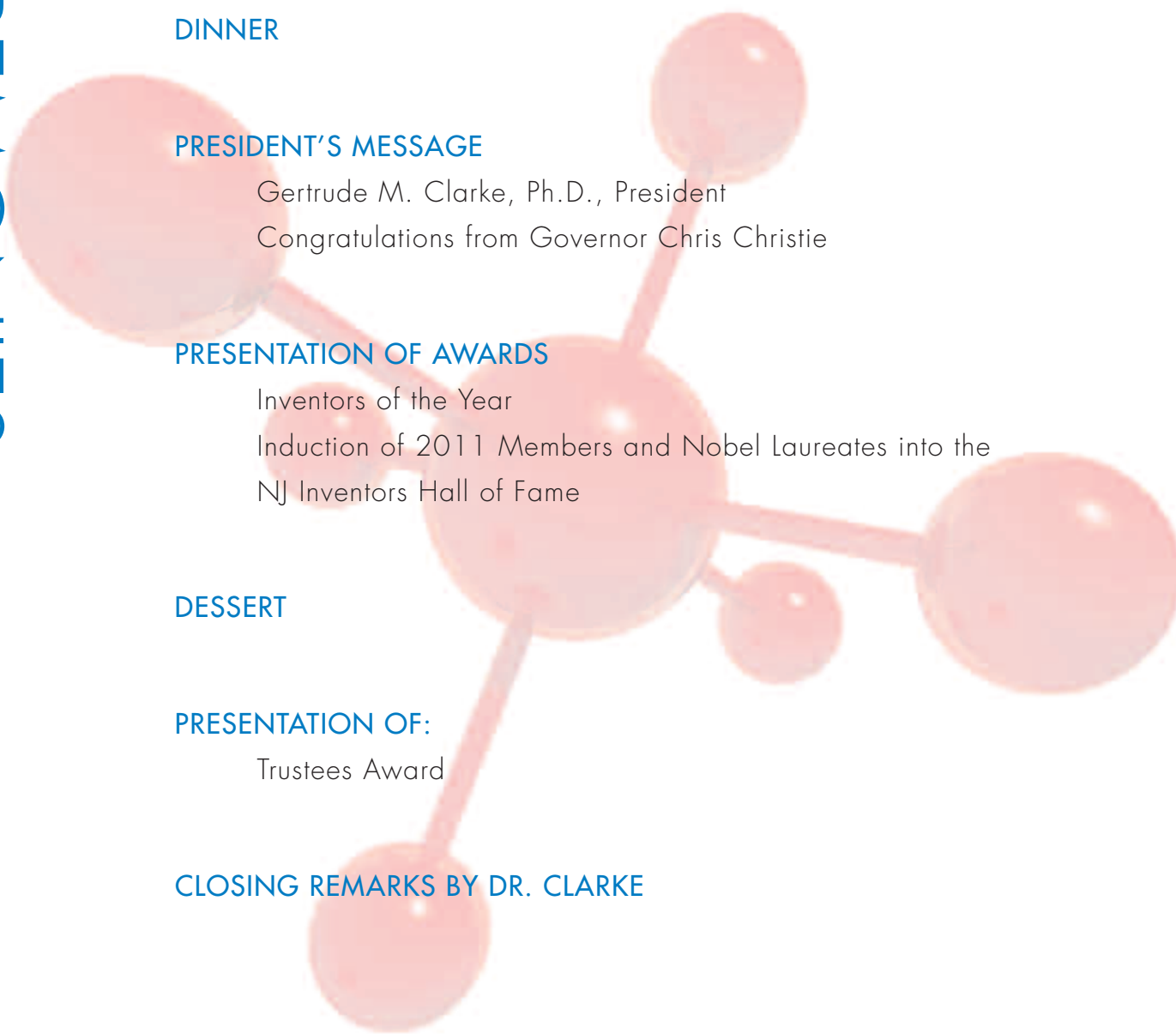
Induction of 2011 Members and Nobel Laureates into the
NJ Inventors Hall of Fame

DESSERT

PRESENTATION OF:

Trustees Award

CLOSING REMARKS BY DR. CLARKE



HISTORY OF THE NEW JERSEY INVENTORS HALL OF FAME

The **New Jersey Inventors Hall of Fame (NJHoF)** was established in 1987. Its mission statement is "To Promote and Foster Creativity, Innovation and Invention and Thereby Contribute to Economic Growth and Improve the Quality of Life in New Jersey" and "To Honor New Jersey Inventors and Encourage Recognition of New Jersey as The Invention State".

New Jersey, with its unusually rich mixture of scientists, engineers, and inventors, has played a key role in the birth of invention in the United States. Home to the great Thomas Edison, who codified the process of invention in his invention factories at Menlo Park and West Orange, New Jersey is a powerhouse of creativity and innovation. The tiny state ranks fourth nationally in total number of patents issued to its inhabitants. Pound-for-pound, our state is a heavy-weight of invention and intellectual property.

The National Inventors Hall of Fame exists in Akron, Ohio, with a number of NJHoF inductees also honored there. New Jersey is the only state to have its own Inventors Hall of Fame, and has been recognized by the National Hall of Fame and the U.S. Patent Office for its outstanding organization and commitment to honoring inventors. Several NJHoF honorees have also received Nobel Prizes, which attests to the scrutiny of nominees by the NJHoF Board of Trustees.

Since its inception the New Jersey Inventors Hall of Fame has inducted 142 inventors to the "Inventors Hall of Fame", has honored 117 as "Inventor of the Year", and 18 Corporations were recognized for supporting and fostering invention/innovation. In addition, others were recipients of the "Special Award" and "Advancement of Invention Award".*

In recent years, the Trustees have added the "Innovator" and "Graduate Student" awards, recognizing 16 and 14 inventive/innovative New Jersey citizens respectively.*

The prestigious "Trustees Award" was created in 2008.



*[Pre-2011 Award Figures]

Nominees **MUST** have either been a resident of New Jersey and/or completed the majority of their inventive/innovative work while employed in New Jersey. Nominations from companies must have a minimum of one site located in New Jersey.

Categories and requirements;

The Nomination Form and category data must be completed and submitted by May 1st of the year to be considered. Nominations received after the final due date will be considered the following year. Currently seven (7) award categories exist for which candidates may be nominated. **The *Trustees Award*, established in 2008, is determined solely by the NJIHoF Board of Trustees.**

1. **Inductees into Inventors Hall of Fame** (six awards maximum per year, two of which may be designated Pioneers, and a maximum of three per year may be Nobel Laureate inductees)
 1. Lifetime achievements with multiple, associated inventions over a period of time which showed strong commercialization.
 2. Full copy of most significant United States patent which the nominee is being considered **MUST** be attached and which was, or is, in force and made available to the public at large. Related patents may be listed by patent number and date of issuance.
 3. Living or deceased "recognized luminary"
 4. Only one of multiple nominees of the considered patent need to complete the nomination form. The co-inventors need only to supply their personal data.
2. **Corporate Award** (one or two determined annually)
 1. Companies large or small worthy of this award have created and successfully commercialized products of great significance and enduring impact to the lives of humans worldwide
 2. Recipients considered for this award usually have well over 100 patents
3. **Inventor of the Year** (six awards maximum per year)
 1. Invention **MUST** be within 20 years from the date of USPTO application.
 2. Full copy of significant United States patent which the nominee is being considered **MUST** be attached.
 3. Invention is commercialized.
 4. Living inventor.

REQUIREMENTS FOR NEW JERSEY INVENTORS HALL OF FAME AWARDS

4. **Innovators Award** (six awards maximum per year)
 1. Patent not required
 2. Conceptual idea, theory, chart, mathematical formula or the like
 3. Significant scientific achievement(s)
 4. Living or deceased innovator

5. **Advancement of Invention Award** (one or more annually)
 1. Exhibits a sterling record of sustained encouragement of invention and innovation in NJ
 2. Serves as a model to encourage careers linked with or dependent upon invention and innovation
 3. Promotes technological development reliant upon the invention process

6. **Special Awards** (three awards maximum per year)
 1. Such as: Cultural Impact/Enduring Popularity (ex. golf tee, ice cream cone), Young Inventor, Small Business Inventor
 2. Inventor **MUST** have been awarded a USPTO patent.
 3. Invention is, or was, commercialized.
 4. Living or deceased inventor.

7. **Graduate Student Award** (six awards maximum per year)
 1. Current graduate student or graduate student of the previous year.
 2. Recognition for "Participating in the Invention Process."
 3. Patent not required, with emphasis on thesis work.
 4. Nominee typically nominated by the sponsor professor.

The NJIHoF Board of Trustees has the sole right to judge, approve and reassign to another category any nominations they deem necessary.



2011
AWARD
WINNERS

GRADUATE STUDENT AWARD



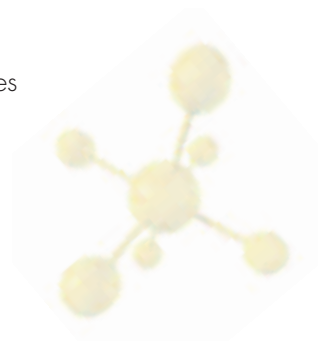
Milan Begliarbekov | Komlan Egoh | Andrew C. Ihnen | Eric M. Stroud

Mr. Milan Begliarbekov was born in Moscow and emigrated to the U.S. shortly after the collapse of the USSR. As an undergraduate at Stevens Institute of Technology, he studied Physics and contemporary poetry, and is currently working towards his doctorate in Physics. Throughout his academic career, Mr. Begliarbekov was supported by the NSF GK-12 program through the New Jersey Association of Energy Engineers. As an NJAEE fellow, he worked alongside teacher mentors in high schools to expose students to science and engineering. His interests include connections between language and movement, gender studies, epistemology, condensed matter physics, and cooking.

Mr. Komlan Egoh received his Diplome D'ingenieur in Electrical Engineering in 2001 from the *Ecole Nationale Supérieure d'Ingénieurs* at the University of Lome in Togo (West Africa). In 2005, Mr. Egoh received his M.S. degree in Internet Engineering from the department of Electrical and Computer Engineering at the New Jersey Institute of Technology. He is currently a PhD candidate in the same department. His present research lies within the general areas of distributed processes, communication networks, wireless mesh and sensor networks.

Mr. Andrew Ihnen began graduate school at Stevens Institute of Technology in 2006 as a master's student in Materials Science and moved onto the PhD program in 2008. Prior to attending Stevens, he graduated from Virginia Military Institute with a BS in Civil Engineering in 2006. Andrew's current research involves inkjet printing and patterning of energetic materials, successfully demonstrating that it is possible to control the nanoscale morphology of printed composite materials.

Mr. Eric M. Stroud received his B.S. degree in Chemical Engineering and M.S. degree in Environmental Engineering from the New Jersey Institute of Technology (1995, 1997). He is currently a PhD candidate in Organic Chemistry at Seton Hall University. Mr. Stroud is a co-founder of SharkDefense Technologies, whose innovations have resulted in three U.S. patent applications, a Canadian patent application, patent awards in Australia and South Africa, and a Small Business Innovation Research Grant. His work with his colleagues is leading to new repellent technologies for the control of the invasive sea lamprey.

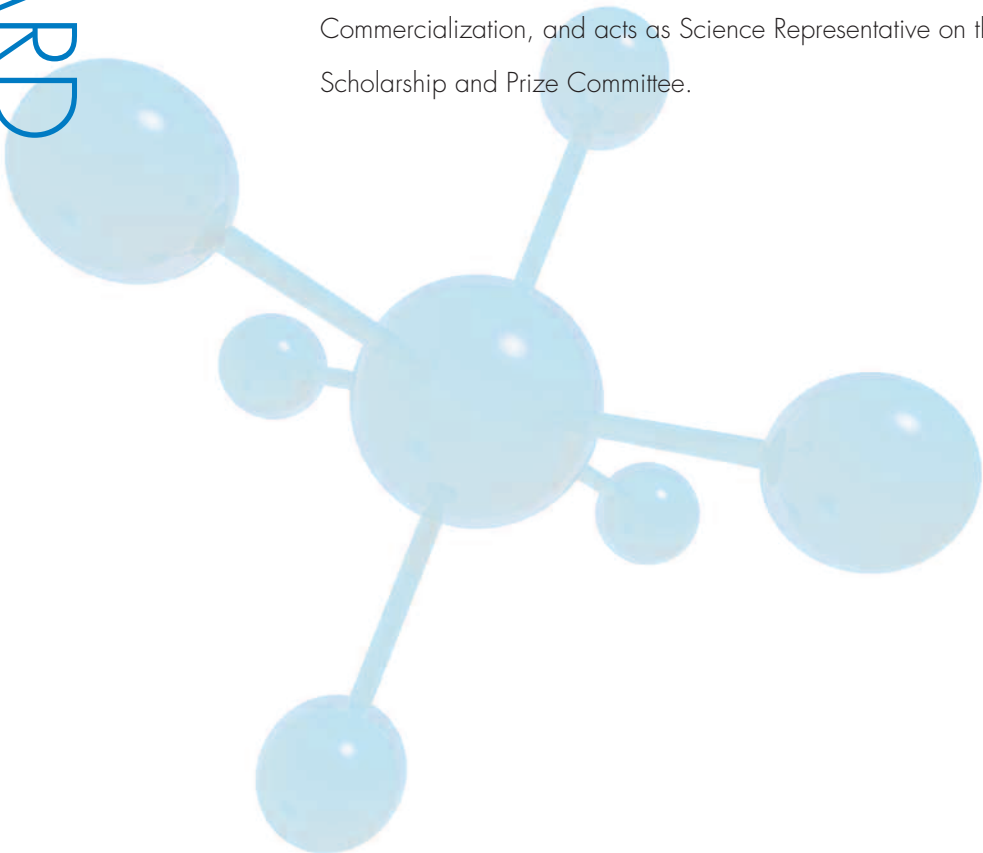


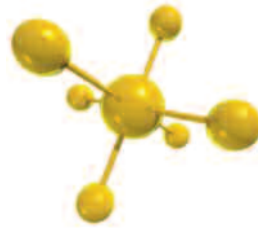
ADVANCEMENT OF INVENTION AWARD



Dr. Rainer Martini

Dr. Rainer Martini received his Ph.D. in Physics from RWTH Aachen, Germany, performing research on novel infrared sources. In 1999, Dr. Martini entered into a joint research program with Bell Laboratories and Stevens Institute of Technology, resulting in a successful demonstration of the first mid-infrared high-speed communication. In 2001, he joined the Department of Physics and Engineering Physics at Stevens, where he recently became Department Director. Continuing his research in optical communications, novel infrared radiation sources and imaging devices, he founded the Ultrafast Laser Spectroscopy and High-Speed Communication Laboratory. He authored four book chapters and over 40 journal articles, was awarded two patents, and received two outstanding teaching awards. In addition, Dr. Martini is the longest serving member of the Stevens Patent Committee, has served on the Stevens Board of Trustees Committee for Research and Technology Commercialization, and acts as Science Representative on the Stevens TechnoGenesis Scholarship and Prize Committee.





INNOVATORS AWARD

Dr. Thomas J. Nosker | Dr. Gordon A. Thomas

Dr. Thomas J. Nosker received his Ph.D. in Mechanics and Materials Science from Rutgers University in 1988 in the area of polymer physics. Dr. Nosker presently serves as a Principal Investigator in the AMIPP Advanced Polymer Center of Rutgers University. He is also a Professor in Rutgers' Department of Materials Science and Engineering. He is interested in the relationship between the properties and processing of immiscible polymer blend systems, including those that contain inorganic reinforcing elements. Dr. Nosker has developed five separate structural materials technologies utilizing these types of systems. His current interests also include utilizing his Mechanical Engineering background to develop a number of structures that take advantage of the ability to inexpensively mold complex shapes in the aforesaid materials that he has developed, in an effort to lower stresses internal to such materials while increasing the overall load bearing potential for the structures.

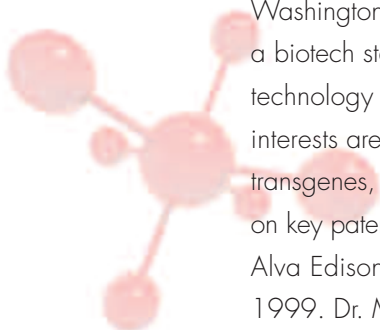
Dr. Gordon Albert Thomas, a Professor of Physics at the New Jersey Institute of Technology, studies and develops devices to prevent blindness, treat brain injury, and save soldiers' lives. The American Physical Society honored Dr. Thomas as a Fellow, partly for his discovery of how metal changes into an insulator. He received an Sc.B. from Brown University, a Ph.D. from the University of Rochester, and has conducted research at the University of Tokyo, Harvard University, the Massachusetts Institute of Technology, and Bell Laboratories. The Incubation Factory recently licensed his patent for an instrument to help treat glaucoma. Dr. Thomas is also an enthusiastic teacher and is collaborating on educational projects to enhance student learning at NJIT. He has served the national physics community as an officer of the APS. He published about 150 papers and holds about 15 patents in the fields of basic and applied physics.



Dr. Dorin Comaniciu | Dr. Pal Maliga

Dr. Dorin Comaniciu is Global Technology Head for Image Analytics and Informatics at Siemens Corporate Research, Princeton, New Jersey, leading a research team with offices in the U.S., Germany, Austria, and China. His scientific interests include medical imaging, cardiac and whole body modeling, image-guided surgery, biomedical informatics, personalized healthcare, computer vision, tracking and motion estimation, information fusion, and content-based access to visual data. Dr. Comaniciu holds 82 US patents and co-authored over 200 publications in the field of information processing, including best papers in IEEE CVPR and MICCAI. He received the 2004 Siemens Inventor of the Year Award, the 2010 IEEE Longuet-Higgins Prize for 'fundamental contributions to Computer Vision', and served as Scientific Director of Health-e-Child, a project granted as the 2008 Europe's Information Society Grand Prize. The aortic valve implantation technology his team contributed to Siemens received the 2010 Innovation Award of the European Association for Cardio-Thoracic Surgery. He served as an Associate Editor of IEEE Transactions on Pattern Analysis and Machine Intelligence (2006-2008) and IEEE Transactions on Medical Imaging (2009-2011). Dr. Comaniciu graduated from the University of Pennsylvania - The Wharton School (AMP '11), Rutgers University (PhD '99), and the Polytechnic University of Bucharest (PhD '95, Dipl.-Ing '88).

Dr. Pal Maliga is Professor of Plant Biology at Rutgers University. He received an M.S. degree in Genetics and Microbiology from the Eotvos Lorand University, Budapest in 1969 and a Ph.D. degree from the Jozsef Attila University, Szeged in 1972. From 1971 through 1982, Dr. Maliga held appointments at the Biological Research Center, Szeged, Hungary, where his research group pioneered mutant isolation, organelle transfer and genetic recombination in cultured tobacco cells. Before joining Rutgers in 1989, Dr. Maliga spent a year at Washington University and served as Research Director for Advanced Genetics Sciences, a biotech start-up. Since joining Rutgers, Dr. Maliga and his research group developed the technology of plastid transformation in the tobacco model system. His current research interests are the biotechnological applications of plastid transformation, biosafety of plastid transgenes, and genetic control of plastid inheritance. Dr. Maliga is the principal inventor on key patents directed toward plastid engineering, for which he was granted the Thomas Alva Edison Patent Award from The Research and Development Council of New Jersey in 1999. Dr. Maliga was elected Foreign Member of the Hungarian Academy of Sciences in 2001, and is presently Chief Scientific Officer of Plant Transformation Technologies LLC.



INVENTOR OF THE YEAR AWARD



Dr. Daniel E. Murnick | Mr. Gianluca Paladini

Dr. Daniel E. Murnick is a Professor of Physics at Rutgers University Newark. Dr. Murnick received his PhD degree from M.I.T. and a B.A. from Hofstra University. Prior to joining Rutgers, he was a Distinguished Member of Technical Staff at Bell Laboratories. While there, he was elected a Fellow of The American Physical Society and received the Humboldt Award for Distinguished American Scientists from the government of Germany. At Rutgers, Dr. Murnick served as Chairman of the Department of Physics and held the Donald H. Jacobs Chair in Applied Physics. In 1996, he was awarded the Thomas Alva Edison Patent Award of the Research and Development Council of New Jersey for developing the Laser Assisted Ratio Analyzer (LARA), a system for measuring isotopic ratios in breath for use in diagnostic gastroenterology. Advances in the LARA technology have led to a new technology for highly sensitive quantitation of ^{14}C . He is the author or co-author of more than 130 technical papers and holds several patents in the areas of isotope analysis, ultraviolet light production, and laser surface modification. He has also been a consultant and advisor to several medical and industrial companies and state, federal and international government agencies.

Mr. Gianluca Paladini is a Program Manager at Siemens Corporate Research in Princeton, New Jersey, where he heads the Imaging Architectures research program with teams in the U.S., Germany and India. He is responsible for research initiatives in real-time visualization and high-performance computing, with applications in reconstruction, registration and visualization for diagnostic imaging, cellular/tissue imaging, pre-clinical imaging and clinical trials. Mr. Paladini holds 41 world-wide patent properties, has co-authored over 40 publications in the medical imaging field, including best paper at the 2005 VMV, and teaches classes/tutorials at RSNA, SPIE and SIIM. In 1991, Mr. Paladini pioneered real-time 3D ultrasound, presenting it at the 6th World Congress in Ultrasound Imaging. As a result, he leads the design of 3D/4D ultrasound functionality for Siemens' scanners. He is the architect responsible for the core imaging toolkit used by Siemens Healthcare in syngo Leonardo and syngo.via imaging platforms, where his real-time large volume rendering technology is used in over 70 clinical applications. Mr. Paladini is an industry Principal Investigator in six grants funded by various government agencies, a principal architect of NCI's caBIG Extensible Imaging Platform, a founding member of the CTK Alliance, and a voting member of the DICOM WG23 Standards Committee.



INVENTOR OF THE YEAR AWARD



David B. Seifer, M.D. | Navnit H. Shah, PhD

David B. Seifer, M.D. is the Co-Director of Genesis Fertility & Reproductive Medicine at Maimonides Medical Center, Brooklyn, New York. Dr. Seifer received his medical degree from the University of Illinois Medical School (Chicago) and completed his Obstetrics and Gynecology residency at Stanford University Medical Center. He completed a fellowship in Reproductive Endocrinology and Infertility at Yale. Dr. Seifer is a Clinical Professor of Obstetrics and Gynecology at UMDNJ-Robert Wood Johnson and NYU Schools of Medicine. He has served as a Board Examiner for the American Board of Obstetrics and Gynecology and as a member of the editorial boards for *Fertility and Sterility* and the *Journal of Pelvic Medicine and Surgery*. He is also co-editor of three textbooks, all geared towards physician education. Dr. Seifer has served as a consultant for the FDA, served as a member of National Institutes of Health study sections and has published over 110 medical studies in peer-reviewed journals. His continuing research, which has been funded by NIH, has focused upon the biological basis of the aging ovary and identifying novel ovarian proteins. Dr. Seifer holds four U.S. and eight foreign patents for his work on novel uses of ovarian proteins.

Dr. Navnit H. Shah is a Distinguished Research Leader in the Pharmaceutical R&D Department at Hoffmann-La Roche Inc. in Nutley. He is heading the oral dosage form development group of about 20 scientists. He has received his B.S. in Chemistry and Pharmacy from the Bombay University, and received M.S. and a Ph.D. in Pharmaceutics from St. John's University in New York. Dr. Shah has accumulated over 38 years of experience on the research and development of oral dosage forms and published and presented over 70 papers and 120 abstracts in drug delivery area covering improving bioavailability of poorly water soluble molecules, lipid based delivery, controlled release and solid dosage form technologies. He is listed as an inventor on 19 issued patents and 14 pending patent applications. He has received numerous awards for his original research in drug delivery area. Dr. Shah was elected as a Fellow of the American Association of Pharmaceutical Sciences in 1998. He received a Thomas Alva Edison Patent Award in 2005, a distinguished Alumni award in 2008 and a Research Leadership Award from the New Jersey Association of Biomedical Research in 2010. He is also an adjunct professor at the University of Rhode Island.

INDUCTEES INTO THE NEW JERSEY INVENTORS HALL OF FAME



Arthur A. Gertzman

Mr. Arthur A. Gertzman served the Musculoskeletal Transplant Foundation (MTF) in Edison, New Jersey as Executive Vice President of Research & Development and Chief Scientific Officer from 1996 to 2009. He now works part time for MTF as Vice President of Allograft Technology with responsibility for managing the Foundation's intellectual property.

Mr. Gertzman worked for Ethicon, Inc, a Johnson & Johnson company in Somerville, New Jersey, leaving as Corporate Director, Technical Services in 1996. He served in R & D, Process Engineering and technology transfer across all five of the Ethicon U.S. plants. At Ethicon, he focused on product development of medical devices in surgical sutures and meshes, surgical staples and staplers, and large scale, automated processes for producing, packaging and sterilizing such devices.

Mr. Gertzman holds forty-five issued U.S. patents, with nineteen pending in the U.S. The technologies represent a wide range of polymeric surgical implants, application of donated bone and soft tissues for orthopaedic and sports medicine applications and the applied science underlying demineralized bone materials.

Mr. Gertzman has been recognized as an expert in allograft technology and is called on for technical consulting and peer review of papers submitted to technical journals. He has taught allograft science at medical school seminars and Grand Rounds. His current scientific interests include application of human, allograft mesenchymal stem cells and human tissue matrices for novel applications in orthopaedic, plastic and sports medicine surgery.

Arthur lives in Flemington, New Jersey with his wife Gloria; they have three children and ten grandchildren.





Dr. Lynn F. Schneemeyer

Dr. Lynn F. Schneemeyer is a distinguished chemist specializing in the design, synthesis and characterization of new materials, specifically in the areas of superconducting, magnetic, electronic, and optical materials and devices. In 22 years at Bell Laboratories, Dr. Schneemeyer authored over 250 scientific publications and holds 21 patents. She earned her PhD in inorganic chemistry from Cornell University, and conducted postdoctoral research at M.I.T. She earned her undergraduate degree at the College of Notre Dame in Maryland. While with Bell Laboratories, Dr. Schneemeyer managed multi-million dollar research collaborations among diverse corporate partners, and was involved in technology licensing for a Fortune 100 company. She subsequently joined the National Science Foundation as program officer and was responsible for peer review of submitted proposals, as well as coordination and management of programs for support of multidisciplinary research for the chemical sciences. Dr. Schneemeyer has held a visiting professorship at Rutgers University, and served as an adjunct professor at Columbia University. She was Vice Provost for Research and Graduate Education at Rutgers-Newark before moving to Montclair State University as Associate Dean for Academic Affairs.

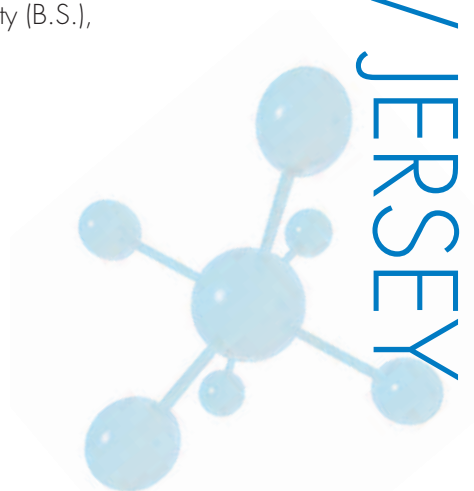




Dr. John J. Siekierka

Dr. John Siekierka is Sokol Professor of Medicinal Chemistry and Director of the Sokol Institute of Pharmaceutical Life Sciences at Montclair State University. Dr. Siekierka has spent over 25 years conducting research in immunosuppressive and anti-inflammatory drug discovery. Prior to joining Montclair State University in 2007, he was Director of Research and Development at the Center for Biomaterials and Advanced Technologies at Johnson & Johnson where he directed research in the development of drug device combination technologies. Dr. Siekierka also held positions as Senior Research fellow and head of Immunosuppression Research at Johnson & Johnson Pharmaceutical Research and Development, as well as senior research positions at Merck Research Laboratories and the Roche Institute of Molecular Biology. Dr. Siekierka is a noted author and speaker who has published over 70 works in scholarly journals and has presented at numerous scientific conferences and symposia. His research has led to discoveries that have resulted in sixteen patents including the mechanism of action of the immunosuppressive drug, sirolimus, and for his contributions to the development of the Cypher™ Sirolimus-Eluting Stent. Dr. Siekierka is the recipient of several awards including Johnson & Johnson's highest award for research, the 2003 Johnson Medal for the discovery and development of the Cypher™ Sirolimus-Eluting Stent. His research interests at Montclair State are in molecular parasitology and development of drugs for neglected diseases. Dr. Siekierka is a graduate of Seton Hall University (B.S.), City University of New York (M.S.) and New York University (Ph.D.).

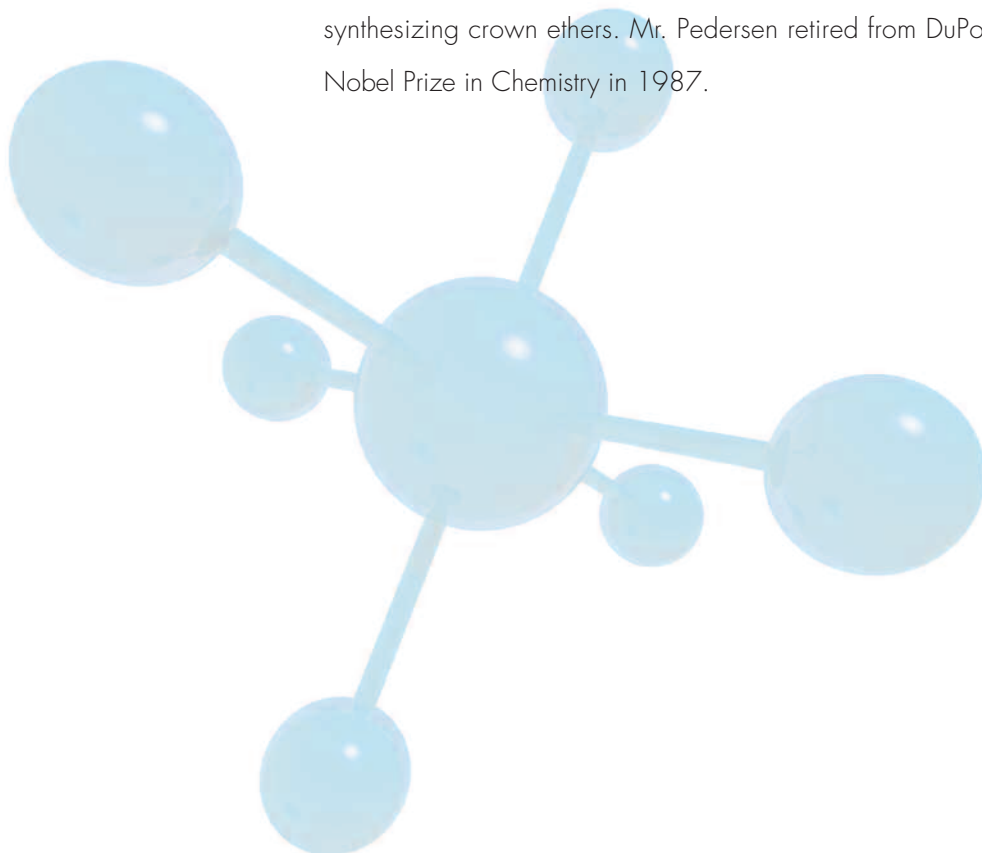
INDUCTEES INTO THE NEW JERSEY
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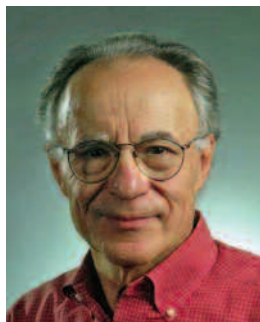




Mr. Charles Pedersen

Charles J. Pedersen received a Master's degree in organic chemistry from the Massachusetts Institute of Technology in 1927, and began his career with DuPont at the Chambers Works' Jackson Laboratory in Deepwater, New Jersey. One of his early accomplishments was to improve the process for making the "antiknock" gasoline additive, tetraethyl lead. He also discovered the first "deactivators" that countered the degrading effects of heavy metals in gasoline, oils and rubbers. During a period of 10 years, he filed for some 30 patents for antioxidants and other products. In 1946, Mr. Pedersen was promoted to research associate and, thereafter, pursued his own research projects. In 1959, Mr. Pedersen transferred to the DuPont Experimental Station in Wilmington, Delaware, where he joined the Elastomers Department. It was there that he discovered crown ethers, and in 1967, he published two works that are now considered classics describing the methods of synthesizing crown ethers. Mr. Pedersen retired from DuPont in 1969. He shared the Nobel Prize in Chemistry in 1987.





Dr. Arno Allan Penzias

Dr. Arno Allan Penzias is an American physicist and Nobel laureate in physics. Born in Munich, he and his family fled Nazi Germany and they eventually settled in the Garment District of New York City in 1940. He graduated from Brooklyn Technical High School in 1951 and received a Bachelor's degree from the City College of New York in 1954. From Columbia University, he received his Master's degree in 1958 and his Ph.D. in 1962.

Dr. Penzias went on to work at Bell Labs in Holmdel, New Jersey, where he and Robert Woodrow Wilson discovered radiant energy leftover from the Big Bang. In this regard, the pair worked on ultra-sensitive cryogenic microwave receivers intended for radio astronomy observations. In 1964, on building their most sensitive antenna/ receiver system, the pair encountered faint radio noise striking Earth equally from every direction, which they could not initially explain. Such noise was far less energetic than the radiation given off by the Milky Way galaxy, so they assumed that their system was subject to interference by terrestrial sources, such as radar and radio broadcasts. They tried, and then rejected, the hypothesis that the radio noise emanated from New York City and other sources. An examination of the microwave horn antenna showed it was full of pigeon droppings (which Penzias described as "white dielectric material"). After the pair removed the guano buildup, the noise remained. Having rejected all sources of interference, the pair published a paper announcing their findings. This was later identified as cosmic microwave background radiation (CMB), which was expected billions of years after the Big Bang. This discovery by Dr. Penzias and Wilson is one of the most important in the history of astronomy as it allowed astronomers to confirm the Big Bang theory and to correct many of their previous assumptions about it.

In 1997, Dr. Penzias joined New Enterprise Associates as a Venture Partner.

NOBEL LAUREATE INDUCTEE



Robert W. Wilson

Robert W. Wilson is a Senior Scientist at the Smithsonian Astrophysical Observatory of the Harvard Smithsonian Center for Astrophysics in Cambridge, Massachusetts. Mr. Wilson is technical leader of the Sub-Millimeter Array, an 8-element synthesis radio telescope built by SAO in conjunction with ASIAA near the summit of Mauna Kea, Hawaii.

Dr. Wilson received a B.A. "With Honors in Physics" from Rice University in 1957 and a Ph.D. from the California Institute of Technology in 1962. After a year at the Caltech Owens Valley Radio Observatory as a postdoctoral fellow, he joined Bell Laboratories as a technical staff member.

Dr. Wilson's early work was in the fields of Galactic radio astronomy and precision measurement of radio source strengths. He is best known for his part in the discovery in 1964 of the 3-K cosmic black body background radiation, thought to have originated in the early stages of the Big Bang. In 1970, he and his co-workers extended radio spectroscopy of the interstellar medium to short millimeter wavelengths where they discovered a number of interstellar molecules including carbon monoxide. The resulting field of molecular astronomy has greatly increased our knowledge of how stars and planets form out of interstellar gas. The SMA on which he is currently working and the international ALMA array, which is about to come online in Northern Chile, are examples of instruments built to exploit this discovery.

At Bell Labs, Dr. Wilson used astronomical techniques to measure earth-space propagation for satellite communication at centimeter and infrared wavelengths, made infrared propagation measurements along a terrestrial path, and conducted patentable work in wireless communications and optical networking. He is a co-recipient of the Henry Draper Medal from the U.S. National Academy of Science and the Herschel Medal from the Royal Astronomical Society, London and the 1978 Nobel Prize in Physics.



Dr. Jeong Kim

Dr. Jeong H. Kim was born in Seoul, South Korea and emigrated to the United States with his family at 14. He enrolled in Johns Hopkins University, where in three years he completed degrees in electrical engineering and computer science. During college, he worked for Digitus, a technology start-up in which he became a partner.

After a seven-year stint in the U.S. Navy as a Nuclear Submarine Officer — a period in which he received a Master's degree in technical management from Hopkins — Dr. Kim joined AlliedSignal to work at the Naval Research Laboratory. During his tenure at Allied Signal, he earned a doctorate in reliability engineering from the University of Maryland.

In 1992, Dr. Kim launched Yurie Systems, the enterprise that would define him as one of the nation's most successful high-tech entrepreneurs. So successful was Yurie that in 1997, Kim took the firm public. Later that year, *Business Week* ranked Yurie the #1 Hot Growth Company among all public companies in the United States. In 1998, Lucent Technologies acquired Yurie for \$1.1 billion in cash.

Dr. Kim stayed on with Lucent as the Optical Networking Group's President until 2001, when he returned to the University of Maryland to teach engineering. Between 2001 and 2002, he served on the 8 member Presidential Commission Review of US Intelligence. He rejoined Lucent as Bell Labs' President in 2005 and currently holds this position.

A member of the prestigious National Academy of Engineering and of the Washington Business Hall of Fame, he was inducted into the University of Maryland's Innovation Hall of Fame in 2004. The university also named its new Jeong H. Kim Engineering Building in his honor. Dr. Kim serves on the boards of many academic, corporate, and nonprofit organizations, including the NASDAQ Listing and Hearing Review Council and the Nomination Evaluation Committee for the U.S. National Medal of Technology and Innovation.



NJHOF BOARD OF TRUSTEES



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Founder, U.S.A.'s 1st statewide business/industry/science education partnership; Physicist (Ret.)



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Ali Abdi, Ph.D.

Associate Professor
Electrical & Computer Engineering Dept.
+ Dept. of Biological Sciences
New Jersey Institute of Technology

Joseph Agostino

Of Counsel
Greenberg Traurig, LLP

Mr. Gilbert Buchalter

President, Pharmaceutical Innovations, Inc.

Mr. Samuel Goldfarb

Consulting Engineer,
Princeton Univ. & Sarnoff Corp.

Ricky John, Ph.D.

Technical Adviser
New Jersey Board of Public Utilities

Mr. Mike Johnstone

Resource Family Advocate
Foster & Adoptive Family Services

Mel Kamen, Ph.D.

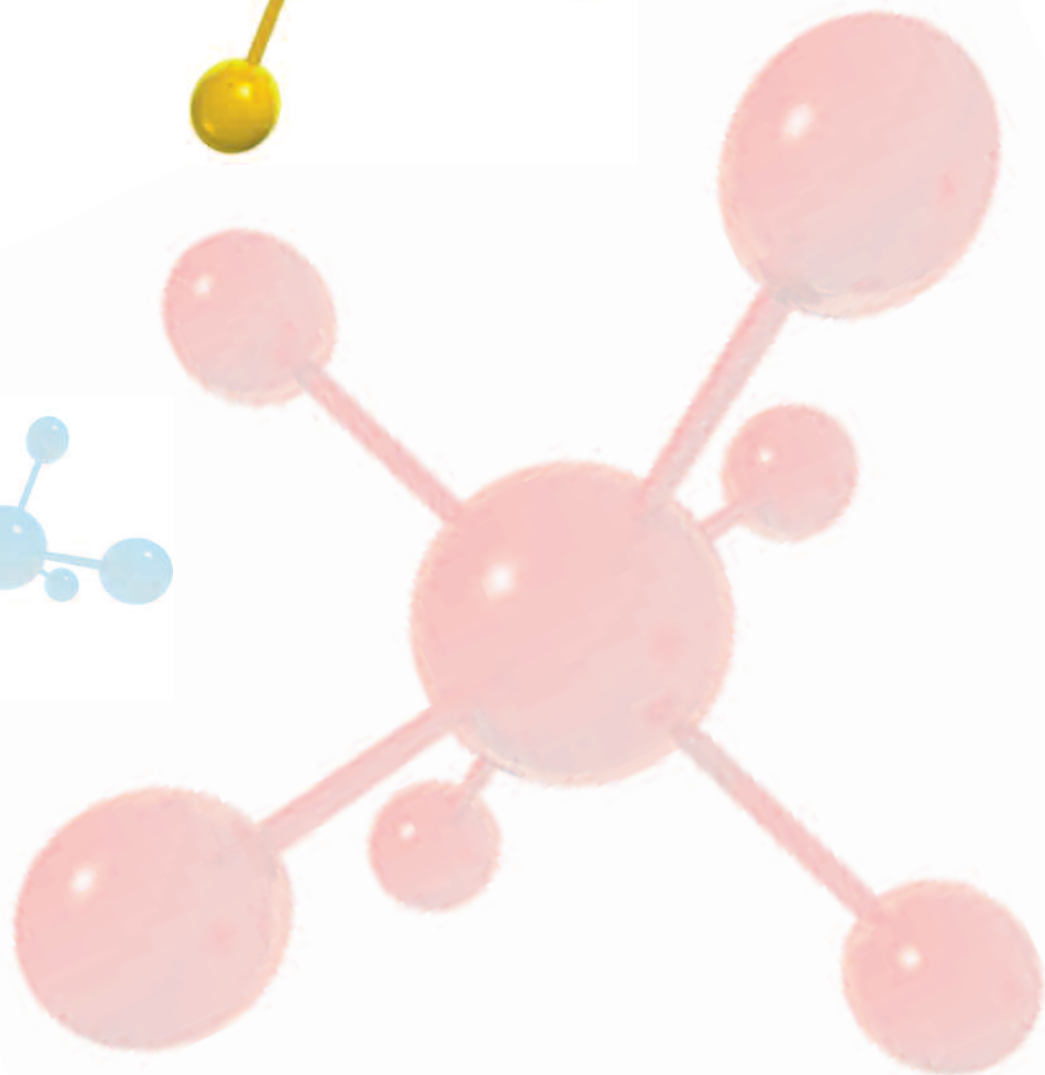
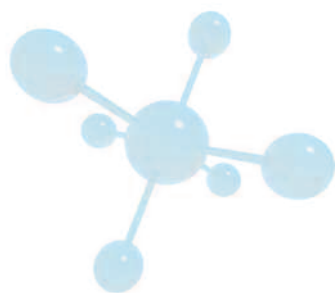
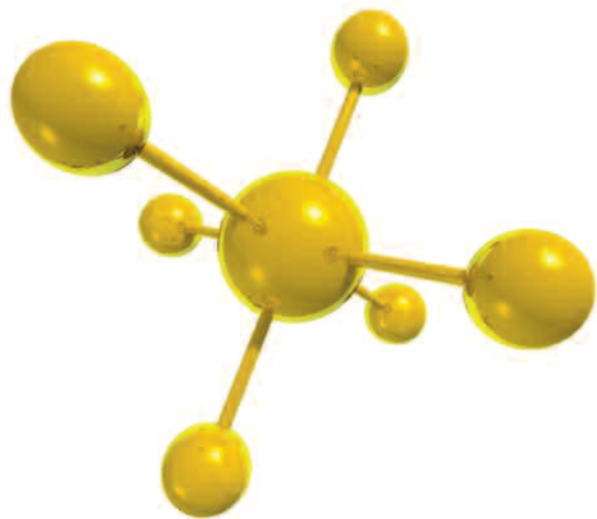
Executive Vice President-Head of Technology
Rev Tech Inc., Revlon Research Center (Ret.)

Ralph W. Selitto, Jr.

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THANKS TO...





Bell Labs congratulates
its 2011

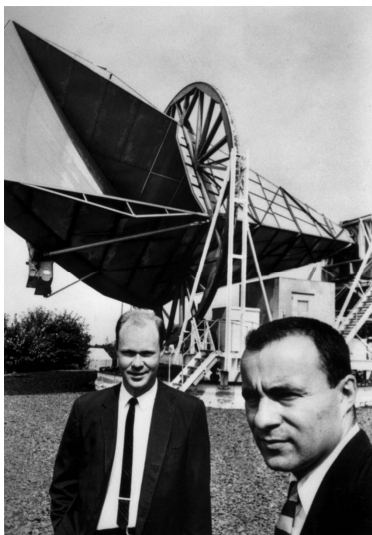
New Jersey Inventors
Hall of Fame
Award Recipients



Trustees Award

Dr. Jeong H. Kim,
President, Bell Labs

For optical communications achievements
and for leadership in drastically reducing the
amount of energy needed to communicate
an intelligible signal



Nobel Laureate Inductees

Dr. Arno A. Penzias
Dr. Robert W. Wilson

Pictured here with the Horn Antenna in
Holmdel, NJ, that led to their 1978 Nobel
Prize in Physics for Discovery of Cosmic
Microwave Background Radiation

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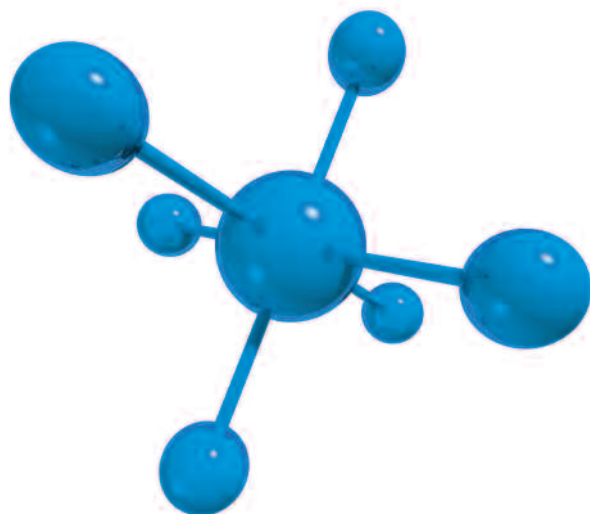
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*Is proud to Congratulate
Dr. Navnit H. Shah
into the
New Jersey Innovators
Hall of Fame*



Plant
Transformation
Technologies™

Plant Transformation Technologies, LLC (PTT, www.planttt.com) was established by **PTT's Chairman Mr. Erich Spangenberg** and **CSO Dr. Pal Maliga** in 2011 with the mission to commercialize the plastid transformation technology platform. Plastids are DNA-containing plant organelles, such as chloroplasts, best known for the conversion of sunlight into chemical energy. High protein yields, expression of complex traits and natural containment make chloroplasts desirable over conventional crop engineering.

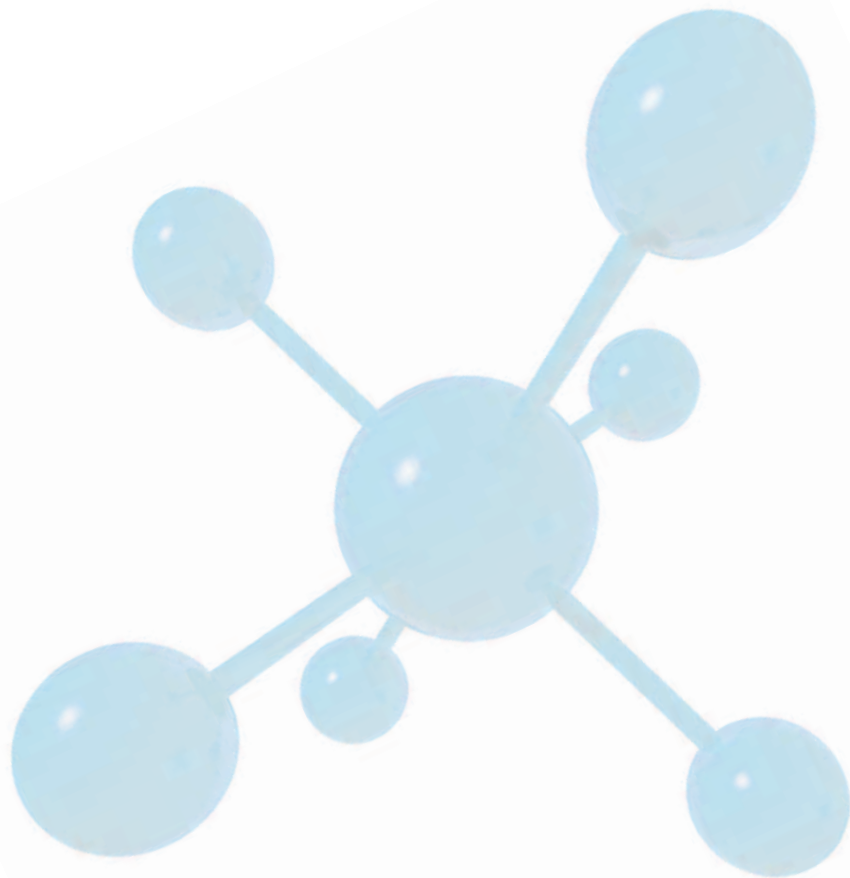
PTT's core IP portfolio, developed by **Rutgers Professor Pal Maliga**, this year's recipient of the Inventor of the Year Award, covers the full range of technologies required for the genetic modification of the plastid genome. PTT supports research in academic laboratories to extend the technology to all major crops and intends to leverage its IP portfolio through partnerships and collaborations in agricultural biotechnology, pharmaceuticals, biofuels, biomaterials and industrial products.



Congratulations to the
New Jersey Inventors Hall of Fame
2011 award winners.

Thank you, Dr. Clarke, for your
inspired leadership of the
New Jersey Inventors Hall of Fame

Henry Orenstein
2006 Inductee



Congratulations to Navnit Shah on being selected Inventor of the Year by the New Jersey Inventors Hall of Fame for his Multiple Inventions and Innovations Enhancing the Science of Drug Delivery

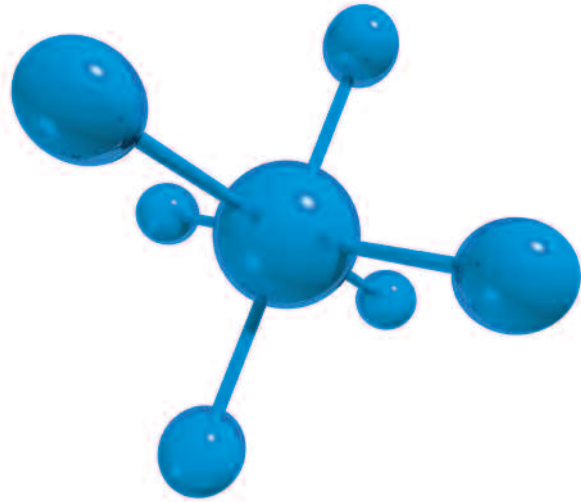




Gil & Claire Zweig
and all the staff at
Glenbrook....

...congratulate Dr. Clarke on
her 16 years as the guiding
light of NJIHoF.

Since Dr. Clarke's dreams will
always exceed her memories,
she will always stay young.



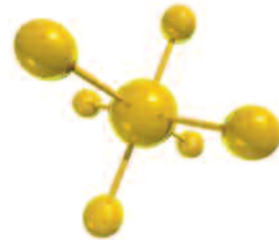
*Congratulations
to all Awardees.*

Michael Y. Wong, M.D. | The Princeton Eye Group
419 North Harrison Street | Suite 104 | Princeton, NJ 08540 | 609.921.9437
www.princetoneyegroup.com

**Honeywell Specialty Materials
Congratulates the 2011
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Best Wishes to the
***New Jersey
Inventors
Hall of Fame***





It starts with a
spark.of
genius

Greenberg Traurig congratulates tonight's award winners.
We applaud your creativity and spirit of innovation.

Our New Jersey Intellectual Property team includes 21
professionals servicing domestic and foreign clients in
diverse technologies.

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