



RESEARCH & DEVELOPMENT COUNCIL OF NEW JERSEY

36th

EDISON

PATENT AWARDS

CEREMONY & RECEPTION

NOVEMBER 12, 2015 • LIBERTY SCIENCE CENTER

INNOVATOR

Janssen

PHARMACEUTICAL COMPANIES

OF *Johnson & Johnson*



DIRECTOR



FELLOW



November 12, 2015

Dear Friends and Fellow Researchers,

Welcome to an event we eagerly anticipate each year—the awarding of the Thomas Alva Edison Patent Awards for the most significant patents emerging from the research community here in New Jersey.

Tonight is a celebration of the present through its connection with the past. The Research & Development Council of New Jersey established the Edison Patent Awards not only to celebrate the achievements of today’s research organizations and their inventors, but to celebrate a legacy that only New Jersey is privileged to claim. Starting in the late 1800s, Thomas Edison molded New Jersey into one of the most innovative places on Earth, and was personally responsible for 1,093 patents, making him one of the world’s most prolific inventors. And what Edison started, other inventors continued. Our state can boast that it is the home to Bell Labs and its numerous Nobel Prize winners, one of whom we are honoring tonight; to Johnson & Johnson with its vast healthcare research including the prolific band aid; and to some of the most critical public–private research partnerships, such as Merck’s funding of the discovery of streptomycin at Rutgers.

Now, in its 36th year, the Edison Patent Awards will honor thirteen research organizations and over 50 inventors in the fields of biopharmaceuticals, biomedical technology, environmental technology, industrial technology, information technology, medical devices, medical informatics, pharmaceuticals, pharmaceutical formulations, public safety, and telecommunications. The Council will also celebrate three individuals who made significant contributions to New Jersey’s R&D and STEM community.

Dr. Robert Woodrow Wilson is being honored tonight with the Science & Technology Medal. Dr. Wilson receives this award for his work co-discovering

cosmic microwave background radiation, a scientific breakthrough that provided crucial corroboration of the Big Bang Theory, for which he also shared

the 1978 Nobel Prize in Physics. Governor Chris Christie is being honored this evening with the Chairman’s Award for his leadership in New Jersey’s higher education system; in particular, for signing the New Jersey Medical and Health Sciences Education Restructuring Act as well as a \$750 million bond referendum for higher education capital improvements. The Council will also honor Dr. Joel Bloom as the 2015 Educator of the Year for his vision in leading NJIT to become one of the nation’s leading public polytechnic institutions of higher learning.

While Edison may not have been able to imagine the work of tonight’s honorees, he certainly paved the way for their achievements, and he did it here in New Jersey.

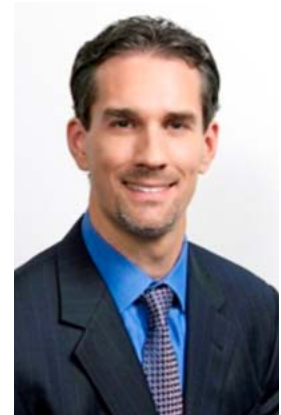
Simply put: you can’t know where you are going until you know where you came from. Tonight we in research commemorate our outstanding past, celebrate our present, and look confidently to our future here in New Jersey.

Congratulations to this evening’s award winners!

In partnership,



Troy C. Sarich, Ph.D.



ORGANIZATION/INVENTORS

PATENT NAME

CATEGORY

Alcatel-Lucent Bell Labs

Young-Kai Chen, Noriaki Kaneda, Ut-Va Koc, and Andreas Bertold Leven

Frequency Estimation in an Intradyne Optical Receiver

U.S. Patent 8,073,345

TELECOMMUNICATIONS

Avaya Inc.

Venkatesh Krishnaswamy, Krishna Kishore Dhara, Xiaotao Wu, and Eunsoo Shim

System and Method for Joining Conference Calls

U.S. Patent 8,483,375

INFORMATION TECHNOLOGY

BASF Corporation

Pascaline Tran, Xinsheng Liu, Ye Liu, Mike P. Galligan, Qinglin Zhang, Hiroyuki Horimura (Honda R&D Co., Ltd.), Akiko Iwasa (Honda R&D Co., Ltd.)

Base Metal Catalyst Composition and Methods of Treating Exhaust from a Motorcycle

U.S. Patent 8,668,890

ENVIRONMENTAL TECHNOLOGY

Ethicon

Robert Nering, Simon Cohn, Anthony Miksza, Race Eric Thornton, and Carl Edward Griffin

Surgical Fasteners, Applicator Instruments, and Methods for Deploying Surgical Fasteners

U.S. Patent 8,894,669

MEDICAL DEVICE

ExxonMobil

Mehmet Deniz Ertas, Erika A. O. Biediger, Shankar Sundararaman, Jeffrey R. Bailey, Vishwas Paul Gupta, and Narasimha-Rao V. Bangaru

Methods and Systems for Mitigating Drilling Vibrations

U.S. Patent 8,589,136 B2

INDUSTRIAL TECHNOLOGY

Holtec International

Krishna P. Singh, Ph.D.

Systems and Methods for Storing Spent Nuclear Fuel

U.S. Patent 8,625,732 B2

PUBLIC SAFETY

Merck

Jack D. Scott, Andrew W. Stamford, Eric J. Gilbert, and Jared N. Cumming

Iminothiadiazine Dioxide Compounds as BACE Inhibitors, Compositions and Their Use

U.S. Patent 8,729,071 B2

PHARMACEUTICALS

NJIT

Tara Lynn Alvarez Ph.D. (NJIT) and Bérangere Granger (Essilor International S.A.)

Method for Determining the Acceptance of Progressive Addition Lenses

U.S. Patent 8,814,361

BIOMEDICAL TECHNOLOGY

Novartis Pharmaceuticals Corporation

Lili Feng, Sven Erik Godtfredsen, Paul Allen Sutton, Mahavir Prashad, Michael J. Girgis, Bin Hu, Yugang Liu, Piotr Karpinski, Thomas J. Blacklock

Compounds containing S-N-valeryl-N-[[2'-(1H-tetrazole-5-yl)-biphenyl-4-yl]-methyl]-valine and (2R,4S)-5-biphenyl-4-yl-4-(3-carboxypropionylamino)-2-methyl-pentanoic acid ethyl ester moieties and cations

U.S. Patent 8,877,938 B2

PHARMACEUTICAL FORMULATION

Rutgers, The State University of New Jersey

Peter Lobel and David Sleat

Methods of Treating a Deficiency of Functional Tripeptidyl Peptidase I (CLN2) Protein

U.S. Patent 8,029,781

BIOPHARMACEUTICAL

Siemens Corporate Technology

Tommaso Mansi, Ingmar Voigt, Razvan Ioan Ionasec, Bogdan Georgescu, Etienne Assoumou Mengue, Dorin Comaniciu

Valve Treatment Simulation from Medical Diagnostic Imaging Data

U.S. Patent 8,920,322

MEDICAL INFORMATICS

TE Connectivity SubCom

Jonathan Liss, Richard Kram, and Peter Theophall

Method and Apparatus for Automatically Identifying System Faults in an Optical Communications System from Repeater Loop Gain Signatures

U.S. Patent 6,134,032

TELECOMMUNICATIONS

SPECIAL GUESTS OF HONOR



SCIENCE & TECHNOLOGY MEDAL

Robert Wilson, Ph.D.

Robert W. Wilson is a Senior Scientist at the Smithsonian Astrophysical Observatory of the Harvard Smithsonian Center for Astrophysics in Cambridge Massachusetts. Until his recent partial retirement he was technical leader of the Sub-Millimeter Array, an 8 element synthesis radio telescope built by SAO in conjunction with ASIAA near the summit of Maunakea, 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 member of technical staff.

His 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 3K cosmic microwave background radiation, thought to have originated in the early stages of the big bang. In 1970 he and his coworkers 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 has recently started operation in Northern Chile are examples of instruments built to exploit this discovery

At Bell Labs he also 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 did 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.



CHAIRMAN'S AWARD

The Honorable Chris Christie

Chris Christie is the 55th Governor of the State of New Jersey.

Since taking office, Governor Christie has made balancing the State's budget a top priority. On June 26, 2015, the Governor signed his 6th consecutive balanced budget without raising the tax burden on New Jersey's citizens. Governor Christie achieved passage of a 2 percent cap on property taxes; expanded New Jersey's Earned Income Tax Credit; and has been committed to pursuing meaningful, long-term reform in the pension system.

In addition, Governor Christie has made education reform a top priority, working to turn around failing schools, improve accountability, create a fair and meaningful evaluation system for teachers and principals and increase school choice in the state's worst performing districts. Governor Christie provided billions of dollars in additional state aid for schools, setting a historic high for school funding for five consecutive years. In 2012, Governor Christie signed into law landmark bipartisan tenure reform, modernizing the nation's oldest tenure law to increase teacher effectiveness and accountability in the classroom.

Governor Christie has placed a spotlight on changing the conversation on drug addiction. In 2014, Governor Christie and Pastor Carter of Newark's New Hope Baptist Church hosted a summit on drug addiction that served as a call to action and conversation focused on ending the stigma around drug addiction and treatment. Governor Christie signed into law landmark, bipartisan legislation to put in place a state-wide, mandatory drug court program.

Chris and his wife, Mary Pat, reside in Mendham, where they are raising their four children.

After graduating the University of Delaware, Chris attended Seton Hall University School of Law. He graduated in 1987 and joined a Cranford law firm, where he was soon named a partner. He was elected a Freeholder in Morris County, and served as Director of the Board in 1997.

Christie was named U.S. Attorney for the District of New Jersey in 2002.



EDUCATOR OF THE YEAR

Joel S. Bloom, Ed.D.

Joel S. Bloom, Ed.D. is President of the New Jersey Institute of Technology.

Dr. Bloom started his career in industry working as an economist. He subsequently became an educator and administrator for the New York City public schools. Prior to coming to New Jersey, he worked as a research director and instructor at Teachers College, Columbia University. In New Jersey, he managed state and federally-funded curriculum development and training centers for the state. From 1983 through 1990, Dr. Bloom served as assistant commissioner in the N.J. Department of Education for the Division of General Academic Education. He was responsible for managing many of the education department's initiatives including competency testing, curriculum content standards, pre-school programs, establishment of 17 model effective schools, over 300 grants and contracts, and a \$24 million budget.

Since joining NJIT in July 1990, Dr. Bloom has served the university in many capacities and in 1996, was promoted to vice president for academic and student services. Dr. Bloom was appointed as the first dean of the Albert Dorman Honors College in 1998, in addition to his vice president responsibilities. Dr. Bloom is chair of the Science Park Board, treasurer of the NJ President's Council, and treasurer of the NJEDGE.Net Board. In addition, he serves as a member of the the Board for Communities and Schools, Newark Alliance, Philadelphia Alliance for Minority Participation, La Casa de Don Pedro, and the Association of Public and Land-grant Universities Presidents Council.

Dr. Bloom holds a master's degree and a doctorate from Teachers College, Columbia University. He also earned master's and bachelor's degrees from Hunter College of the City University, New York City.

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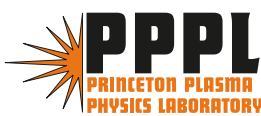
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2015-2016





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