

Alumni Association Honors Leading Engineers and Scientists

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The Columbia Engineering Alumni Association (CEAA) honored a trio of pioneering Columbia alumni at its annual awards presentation and welcome dinner in Low Rotunda to kick off Alumni Reunion Weekend. The honorees were Nobel Laureate and University Trustee Emeritus [Dr. Harold Varmus](#) (#varmus) '64SIPA, '66PS, '90HON; former Samsung Electronics President [Jae-Un Chung](#) (#chung) BS'64, MS'69; and [Bernard Roth](#) (#roth) MS'58, PhD'63, Adams Professor of Engineering and co-founder of the Institute of Design at Stanford University.

In his welcome remarks on behalf of Columbia University President Lee C. Bollinger, University Executive Vice President for Research G. Michael Purdy underscored the School's positive momentum, noting that it continues to grow not

only in size but also with respect to garnering greater awareness for its achievements. The School's achievements "have changed not just how we live, but how well we live, and this is a great foundation for the many new and remarkable accomplishments that I am confident will come in the future," said Purdy.

Varmus, the recipient of the Pupin Medal, is the director of the National Cancer Institute and former director of the National Institutes of Health. He is credited with the co-discovery of oncogenes and for the development of the concept of a genetic basis for the origin of cancer.

Chung, who received the Samuel Johnson Medal, is credited with creating an open management style and using new approaches to organizational behavior, such as quality control, diversification, strategic alliances, and ethical management.

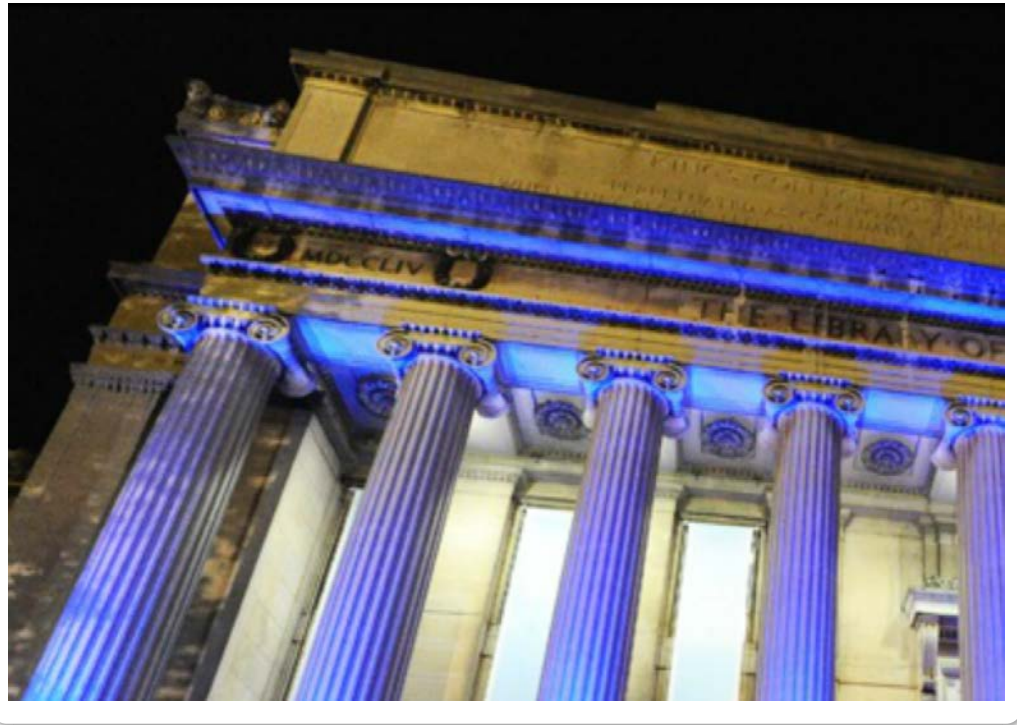
Roth, the recipient of the Egleston Medal, is a pioneer in research on robotics; kinematics; analytical methods in design, technology and society; and creative problem solving. He and his students have established the scientific basis behind much of the current research in these areas.

Dr. Harold Varmus '64SIPA, '66PS, '90HON

Nobel Laureate and University Trustee Emeritus

Varmus, a co-recipient of the 1989 Nobel Prize for his studies of the genetic basis of cancer, was nominated director of the National Cancer Institute by President Obama in 2010. He has previously served as president and chief executive officer of Memorial Sloan-Kettering Cancer Center (MSKCC) and as director of the National Institutes of Health (NIH).

Much of Varmus' scientific work was conducted during 23 years as a faculty member at the University of California, San Francisco, Medical School, where he and Dr. J. Michael Bishop and their co-workers demonstrated the cellular origins of the oncogene of a





chicken retrovirus. This discovery led to the isolation of many cellular genes that normally control growth and development and are frequently mutated in human cancer. This work earned them both the Nobel Prize for Physiology or Medicine. Varmus is also widely recognized for his studies of the replication cycles of retroviruses and hepatitis B viruses, the functions of genes implicated in cancer, and the development of mouse models of human cancer (the focus of much of the work in his laboratory at MSKCC).

In 1993, Varmus was named by President Clinton to serve as the director of NIH, a position he held until the end of 1999. During his tenure at NIH, he initiated many changes in the conduct of intramural and extramural research programs; recruited new leaders for most of the important positions at NIH; and planned three major buildings on the NIH campus.

At MSKCC, Varmus emphasized opportunities to harness

advances in the biological sciences to improve the care of patients with cancer. Under his leadership, the scientific programs were reorganized and enlarged; a new research building, the Mortimer B. Zuckerman Research Center, was constructed; and new graduate training programs were established in chemical biology and computational biology and in cancer biology.

About the Pupin Medal:

The Pupin Medal established in 1958 to mark the centenary of the birth of Michael I. Pupin, the legendary inventor, who was a Columbia faculty member from 1890 to 1931. It is given periodically to recognize service to the nation in engineering, science or technology, and is given by the CEAA with the concurrence of the dean of Engineering and the president of Columbia.

Jae-Un Chung BS'64, MS'69

Former President of Samsung Electronics



The CEAA honored Chung for his “exceptional and visionary leadership of some of the largest corporations in the world.” He is credited with creating an open management style and using new approaches to organizational behavior, such as quality control, diversification, strategic alliances, and ethical management. He is currently honorary chairman of retail giant Shinsegae Group, a leading Korean department store chain.

Chung began his career with Samsung Electronics in 1969 after receiving his master’s degree from SEAS in industrial engineering and operations research. He became managing director in 1978, and in 1982, he was named vice president. In that role, he spearheaded the company’s 10-year vision and started the “Open Door Policy” that led to “Open Management.”

In 1984, he was named president of Samsung Electronics and president of Samsung Electro-Mechanics. Under his leadership, the companies received many awards for production efficiency,

management excellence and export benchmarks.

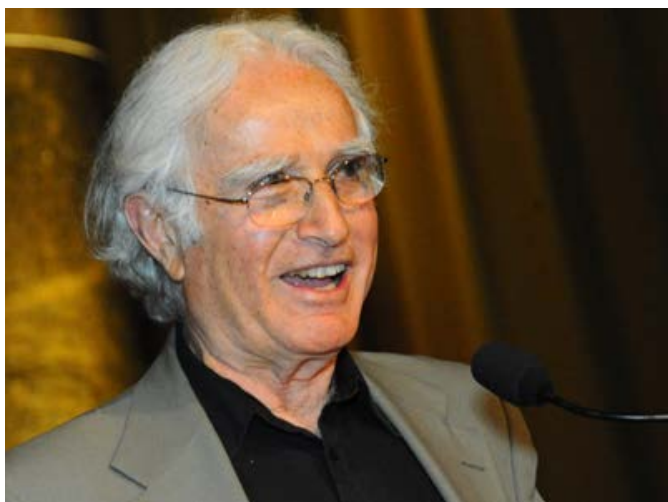
He was named vice-chairman of Samsung Electronics in 1986 and earned the “Best Management Prize” of the Korean Management Association. In 1992, he was named chairman of the Westin Chosun Hotel and, the next year, was named chairman of Shinsegae Group, the popular Korean department store chain. Under his leadership, he introduced an ethical work spirit to the Shinsegae Group, resulting in a sound business environment for the company.

About the Samuel Johnson Medal:

The Samuel Johnson Medal was established in 2007 to recognize distinguished achievement outside of the realm of engineering. Presented to Chung at the awards dinner by CEAA President Russell Baccaglioni BS'63, MS'64, ProfD'69, '62CC, the medal is named after Samuel Johnson, the first president of Kings College (1754–1763).

Bernard Roth MS'58, PhD'63

Adams Professor of Engineering and co-founder of the Institute of Design at Stanford University



Roth is the co-founder and academic director of Stanford's Hasso Plattner Institute of Design. The "d.school" offers courses that are team-taught to cross-disciplinary teams of graduate students from the schools of engineering, business, humanities and science, law, medicine, education, and earth science.

Roth is a past president of the International Federation for the Theory of Machines and Mechanisms, and a past chairman of the Design Engineering Division of the American Society of Mechanical Engineers. He has served as an industrial consultant to companies such as IBM, FMC, Hitachi, and Toyota.

Roth delivered the Columbia Mechanical Engineering Department's inaugural Freudenstein Distinguished Lecture Series to a packed audience in Davis Auditorium on March 30, 2012 ([watch video here \(http://engineering.columbia.edu/stanfords-dschool-co-founder-delivers-freudenstein-lecture\)](http://engineering.columbia.edu/stanfords-dschool-co-founder-delivers-freudenstein-lecture)). He was the second of Ferdinand Freudenstein's students.

His academic honors and awards include: The Joseph F. Engleberger Award for Robotics; the ASME Machine Design Award and Melville Medal; and the IEEE Pioneer in Robotic Award; among many others.

About the Egleston Medal:

The Egleston Medal was established in 1939 to recognize distinguished engineering achievement that has significantly advanced the profession, the practice, or management of engineering. Named after Thomas Egleston, who founded the Columbia School of Mines in 1864, the medal was presented to Roth in recognition of his more than 50 years of pioneering work in robotics, kinematics, and mechanical design.

—Story by [Jeff Ballinger \(mailto:jl2180@columbia.edu\)](mailto:jl2180@columbia.edu) 

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