

NJIT Honors Membrane Expert Sirkar

The New Jersey Institute of Technology (NJIT) Board of Overseers awarded its Excellence in Research Prize and Medal to Kamalesh K. Sirkar, Distinguished Professor of Chemical Engineering, at a symposium and award ceremony held at the school on Oct. 7. An internationally renowned expert in membrane separation technologies, Sirkar serves as director of NJIT's Center for Membrane Technologies and holds the title of Foundation Professor in Membrane Separations. Recent groundbreaking work in his lab has included: a membrane distillation technique that can recover a larger fraction of water from brine than reverse osmosis; a selective protein ultrafiltration method that could rival chromatography as a process for protein purification; and gas permeation membranes that facilitate the separation of carbon dioxide from air by allowing the carbon dioxide to pass through the membrane up to 1,800 times faster than oxygen and nitrogen.

CEP's editor-in-chief, Cynthia Mascone, served as a special guest presenter and had the honor of draping the four-inch gold medal around Sirkar's neck. She told of her first encounter with him some 20 years ago. "At the AIChE Annual Meeting in Nov. 1986, Dr. Sirkar was the lead author of Paper 18b, 'A New Liquid Membrane Technique for Gas Separation.' I thought the abstract sounded interesting, and that it might be a significant development, so I wrote a short article about it," she said, as she held up a copy of it.

The technology — contained liquid membranes (CLMs) — has indeed been significant.

It is the subject of several patents, and it is used in a variety of applications, from removing pollutants from water to separating multicomponent vapor mixtures to purifying biomolecules.

NJIT Board of Overseers Chair Emil C. Herkert and NJIT President Robert A. Altenkirch then presented an enlarged facsimile of a \$10,000 check, also part of the prize.

Sirkar received his PhD and MS from the Univ. of Illinois at Urbana-Champaign and his BTech from the Indian Institute of Technology at Kharagpur. He was a professor of chemical engineering at IIT, Kanpur, as well as at Stevens Institute of Technology, before joining NJIT in 1992. He has received numerous honorary degrees and awards, including the 2005 AIChE Institute Award for Excellence in Industrial Gases Technology and the 2008 Clarence Gerhold Award of the Separations Division of AIChE.

A link to the video of the award ceremony and Sirkar's lecture can be found at <http://www.njit.edu/outboards/overseers/awards/prizeand-medal/2009/index.php>.



▲ Sirkar receives the symbolic check from Emil Herkert, chair of the NJIT Board of Overseers. The four-inch gold NJIT award medal is shown at left.

Liao to Receive SBE's Bailey Award

AIChE's Society for Biological Engineers (SBE; www.aiche.org/SBE/) will present its 2009 James E. Bailey Award for Outstanding Contributions to the Field of Biological Engineering to James Liao, Chancellor's Professor in the



Dept. of Chemical and Biomolecular Engineering at the Univ. of California, Los Angeles. Liao is being honored for his research and advancements in metabolic engineering and systems biology. He will give his award lecture, titled "A Tale of Two Energy Problems: Fuel Shortage and Obesity," at the AIChE Annual Meeting in Nashville, TN, Tues., Nov. 10, 6:00 – 7:00 pm. The Bailey Award will be presented to Liao at the lecture.

Liao's research in metabolic engineering and systems biology has led to innovative developments in biofuels, as well as novel gene-metabolic circuits for use in bioenergy. (For more about this work, see his article with Wendy Higashide, "Metabolic Engineering of Next-Generation Biofuels," in the SBE Special Section of the August 2008 issue of CEP.) He is also investigating fat metabolism in hepatocytes and nitric oxide signaling in both humans and bacteria.

Endowed by Cyto Biotechnology, the Bailey Award is named for Professor Jay Bailey, whose educational legacy has impacted many modern biochemical and biological engineers. The award is presented to an individual who has had an important impact on bioengineering and whose achievements have advanced this profession in any of its aspects.

For more information about the Bailey Award, visit the SBE website.

ScaleUp Program Continues Support for AIChE Student Members

For the second year, AIChE has experienced a significant increase in its population of undergraduate student members, thanks to free memberships and enhanced benefits provided through the corporate-sponsored ScaleUp Student Membership Initiative.

Launched in Fall 2007, ScaleUp provides complimentary AIChE membership to undergraduate students, and has allowed AIChE to sustain and develop new student programs and services. It has also permitted AIChE to improve its communication efforts and ability to support students and their campus AIChE chapters.

The ScaleUp program relies on donations and leadership from sponsor companies, including 2009 Platinum Sponsors BP and Chevron, and Gold Sponsors Air Products and Chemicals, Dow, DuPont, Merck, and UOP.

A recent "March Madness" member recruitment campaign, conducted at the student chapter level, capped off 2009 student member enrollment with

a total of 11,781 undergraduates. This was an increase from the 8,000 student members enrolled by Spring 2008. Prior to the launch of ScaleUp, undergraduate membership had been 3,300.

All class levels have seen membership growth, but the largest increase has been among freshman and sophomore engineering students, relatively few of whom had traditionally established AIChE membership.

In addition to the success indicated by the numbers, ScaleUp is also notable for program expansion, leadership development, and stronger relationships between individual students, student chapters and corporate sponsors, and between students and the global AIChE organization. The increase in membership has been supported by new communication vehicles, expanded student conferences, and the creation of an undergraduate student advisory board, led by student members from each AIChE region.

A key to Scale-Up's success has



been its outreach plan. AIChE representatives have visited 95% of AIChE's 165 student chapters since ScaleUp's inception, strengthening ties between student members and the national organization.

A next step — and an ongoing challenge — for the ScaleUp program will be assisting new chemical engineering graduates as they transition from student membership to full Young Professional membership. AIChE activity groups are working to create new opportunities and services for these young professionals.

More corporate support is needed. Interested members and company representatives can learn about ScaleUp, and the benefits of sponsorship, at the ScaleUp website, www.aiche.org/scaleup/.

In Memorium: Henry Linden, Renowned Energy Expert

Henry R. Linden, an authority on energy research and policy, died on Sept. 13, 2009, at the age of 87.

An Illinois Institute of Technology (IIT) faculty member since 1954, Linden was most recently the Max McGraw Distinguished Professor of Chemical Engineering, director of the IIT Energy + Power Center, and advisor to the Wanger Institute for Sustainable Energy Research. He was a lifelong benefactor of IIT, where a graduate fellowship bears his name, as does the Henry R. Linden Endowed Professorship.

Linden earned his chemical engineering degrees from Georgia Institute of Technology (BS, 1944), Polytechnic Institute of Brooklyn (now Polytechnic Institute of New York Univ.; MS, 1947) and IIT (PhD, 1952).

For 30 years, Linden served the Institute of Gas Technology in various leadership capacities. He was instrumental in establishing the Gas Research Institute (GRI), the U.S. natural gas industry's cooperative research and development arm, serving as its first president and as a board member from 1977–1987.

After retiring from GRI, he established a comprehensive research and education program in sustainable global energy development at IIT, where his research interests included global

climate change, sustainable global energy systems, and industrial ecology.

Linden was a member of the National Academy of Engineering and a fellow of AIChE, the American Association for the Advancement of Science, and the Institute of Energy. He served on the U.S. Dept. of Energy's (DOE) Hydrogen Technical Advisory Panel from 1992–2003, in addition to other advisory roles.

In 2008, Linden was selected by AIChE's Centennial Committee as one of the "100 Chemical Engineers of the Modern Era," for his leadership on global climate change, industrial ecology, energy resource assessment, and clean coal technology.

He is survived by his wife Natalie, two children from a prior marriage, and one grandchild. Memorial donations may be made to the IIT Dept. of Chemical and Biological Engineering. For information, contact Courtney Beisel at 312-567-3966, or e-mail: cbeisel@iit.edu.



Dorothy Van Antwerpen, Wife of CEP Founder

Dorothy H. Van Antwerpen of Doylestown, PA, died on Aug. 25, 2009, at age 92. She was the wife of Dr. Franklin J. Van Antwerpen, known to many simply as "Van," who served as AIChE's first executive director from 1955–1978. Franklin, who died in 2001, made many contributions to AIChE during his tenure as a member and leader, founding several publications including *CEP* magazine.

The Van Antwerpens' son, Franklin S. Van Antwerpen, a U.S. Circuit Court Judge, recalled in a 2001 interview the dedication that his parents applied to AIChE and the early success of *CEP*. He described watching his mother and father painstakingly hand-cut and paste-up the first issue of *CEP* at the family's kitchen table in 1946.

In 1978, to honor the Van Antwerpens' contributions to the Institute, AIChE established the F. J. and Dorothy Van Antwerpen Award for Service to the Institute.

OBITUARIES

Hugh A. Baird, 88, Bradbury, CA*
 Wilson R. Barnes, 94, Louisville, KY
 Ellis O. Barnes, 87, Jacksonville, FL*
 John W. Dersch, 95, Delray Beach, FL
 Howard E. Fullerton, 66, Arlington Heights, IL
 Halsey E. Griswold, 80, Pawlet, VT*
 Samuel L. Hoff, 74, Buffalo, NY
 Charles D. Holland, 88, College Station, TX*
 Wayne O. Kahila, 50, Metamora, IL
 Albert S. Krisher, 80, Overland, KS
 Kenneth P. Marince, 61, Erie, PA
 John A. Marr, 49, Walnut Creek, CA
 Ransom H. Martin, 68, Loudon, TN
 Albert O. Webb, 91, North Bend, OH

* AIChE Fellow

CORRECTION: In the Oct. 2009 issue, we reported the passing of Joseph D. Helwig. Mr. Helwig is, in fact, alive and active. The report was the result of a database error that revealed itself in an unfortunate way. AIChE and CEP apologize for the mistake.

AIChE Calendar

Conferences



For information and registration details, visit www.aiche.org/conferences or call Customer Service at 1-800-242-4363 or 1-203-702-7660 (outside the U.S.)

NOVEMBER
8–13, 2009

2009 AIChE Annual Meeting
Gaylord Opryland Hotel • Nashville, TN

NOVEMBER
17, 2009

AIChE Day at the Chem Show
Javits Convention Center • New York, NY

MARCH
21–25, 2010

2010 AIChE Spring National Meeting
Grand Hyatt San Antonio • San Antonio, TX

MAY
2–5, 2010

SBE's 2nd International Conference on Stem Cell Engineering
Boston, MA

JUNE
27–30, 2010

AIChE Process Development Symposium
The Lodge of Four Seasons • Lake Ozark, MO

Scheduled Webinars



Register and view live and archived webinars at <http://www.aiche.org/webinars/>

NOVEMBER 17, 2009
2:00–3:00 PM EST

Expiration Day: Planning for the 2010 Estate Law Changes *(Free for AIChE Members)*
Presented by Larry N. Grogan

NOVEMBER 19, 2009
2:00–3:00 PM EST

An Introduction to Methods of Process Safety Hazard Assessment
Presented by Dr. Randy A. Freeman
(Free for AIChE Members)

DECEMBER 2, 2009
2:00–3:00 PM EST

Communicate With Power, Tone Up Your Skills
Presented by Dr. Peter B. Lederman

DECEMBER 9, 2009
2:00–3:00 PM EST

Negotiating for a New Position
Presented by Dr. Ron Elsdon *(Free for AIChE Members)*

DECEMBER 14, 2009
2:00–3:00 PM EST

Managing Millennials: Seven Approaches to Success
Presented by Dr. J. Bradley Garner

DECEMBER 17, 2009
2:00–3:00 PM EST

The Wonderful World of Carbon Nanotubes
Presented by Dr. Meyya Meyyappan

JANUARY 6, 2010
2:00–3:00 PM EST

The Trophy Kids Grow Up: How the Millennial Generation is Shaking Up the Workplace
Presented by Ron Alsop

JANUARY 13, 2010
2:00–3:00 PM EST

Flame Flashbacks: Causes and Prevention
Presented by Dan Banks, P.E.