

the Trend

in engineering

Spring-Summer 2006: Volume 56, Issue 1



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**A new dean
for Engineering...Page 6**

Moving In, On and Up

The cover and centerspread of this issue of *The Trend* report our most exciting news: After a yearlong national search, we're pleased to announce that the College of Engineering has a new dean.

Matthew O'Donnell, chair of the Biomedical Engineering Department at the University of Michigan, will take the college's top post this fall. His official start date is Sept. 1.

We're excited to have Matt on-board. He is a distinguished scholar, widely published and at the cutting edge of his field of biomedical imaging. He is a visionary leader with extensive experience working across disciplines, and colleagues can attest to his engaging personality, candor, and keen professional drive.

In short, he is the perfect fit to take UW Engineering to the next level of excellence. You can read more about Matt on pages 6–7.

I also extend special thanks to two people who helped us attract such a high-caliber candidate. Last



Mani Soma, Acting Dean

year, Frank and Julie Jungers gave \$4 million to create the Frank and Julie Jungers Endowed Deanship in Engineering. At the time, Frank said he hoped it would help us obtain the very best leadership available for the job. It did, Frank — our heartfelt thanks to you and Julie.

Other big news is the opening of a new home for our highly ranked Department of Bioengineering. Nobel Peace Prize Laureate and former President Jimmy Carter was the keynote speaker at dedication ceremonies for the William H. Foege Building, which houses Bioengineering and the Department of Genome Sciences. Microsoft Chairman Bill Gates, whose foundation donated

\$60 million toward the structure, also participated in the event. Our bioengineering faculty now have a high-tech facility that is worthy of their internationally regarded work. Read more about it on page 4.

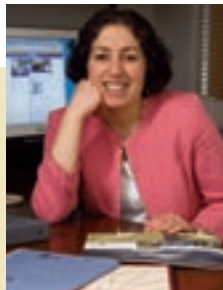
I would like to brag a bit about one of our outstanding faculty members. The dean's office recently lost a talented leader to a higher calling. Mary Lidstrom, our former associate dean for new initiatives, is now a vice provost overseeing research for the entire university. That the UW turns to Engineering for leadership at the university-wide level says a lot about us.

On this page you also will read about outstanding faculty who have moved into important administrative roles at the college.

A new dean, supportive friends, a new building, and a lot of talented, innovative, hard-working people. That sounds like an equation for excellence to me. I invite you to be part of it. Together, we can ensure that UW Engineering continues its rise to international prominence. ■



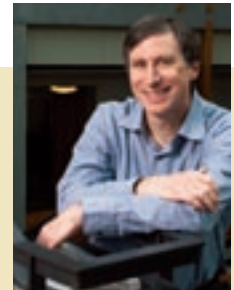
Daniel T. Schwartz joined the college leadership team as the associate dean for new initiatives in November 2005. He also is the Boeing-Sutter Professor of Chemical Engineering and an adjunct professor of materials science and engineering. His research focuses on electrochemical and micro-system engineering and electrochemical materials science.



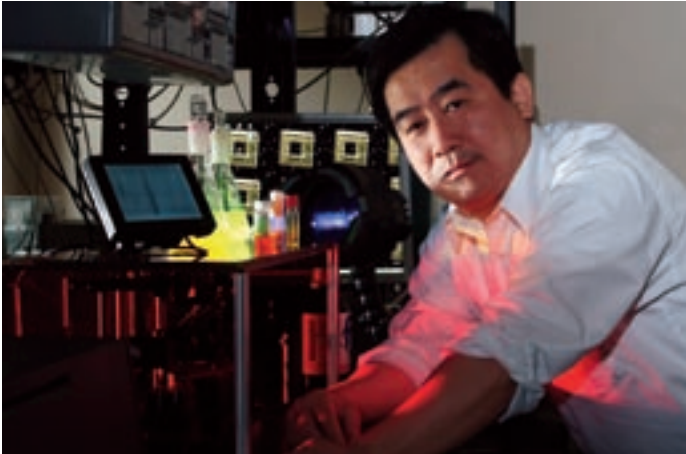
Eve Riskin became associate dean for organizational infrastructure in October 2005. She is a professor of electrical engineering and also directs the ADVANCE Center for Institutional Change, which seeks to increase participation of women in science, engineering, and mathematics. Her research team works on image and video compression.



Carmen Sidbury moved up to the new position of assistant dean for diversity and student services in April 2006. She had been director of this unit since 2004. Sidbury formerly was a diversity program manager at the Georgia Institute of Technology. As a mechanical engineer, she also has worked in the private sector in high-tech research and development.



Henry M. Levy became chair of the Department of Computer Science & Engineering on April 1. A faculty member since 1983, he also holds the Wissner-Slivka Endowed Chair in CSE. He has made significant contributions to computer architecture, operating systems, distributed and parallel computing, and understanding of Internet and Web use.



Alex Jen, Acting Chair of Materials Science & Engineering

MSE Snares Big Research Grants

Materials Science & Engineering has secured close to \$18 million in research funding since last spring. Recent grants to MSE faculty members by high-profile funding agencies show how fast the department's star is rising. Research ranges widely from design of electro-optic materials, to new spintronics materials and devices, next-generation polymers and composites, nanostructured and genetically engineered materials, and biomedical work. Alex Jen, acting chair and holder of the Boeing-Johnson Endowed Chair in MSE, will lead a new UW institute on advanced materials science and technology.

Two Program Directors Honored for Outstanding Diversity Initiatives

Cheryl Burgstahler for DO-IT

Burgstahler founded and directs the UW's nationally acclaimed Disabilities, Opportunities, Internetworking and Technology program administered by the College of Engineering. She has received the Catalyst Award from the Trace Research and Development Center for promoting the academic success of students with disabilities. Burgstahler also co-directs the new AccessComputing Alliance, a national, NSF-funded effort to bring more students with disabilities into the computing field.

Eve Riskin for ADVANCE

Riskin received the first University Change Agent Award on June 12 from the Women in Engineering Programs & Advocates Network. It recognizes her efforts to improve the climate for women faculty at UW in engineering, science, and math. Read more about Riskin on page 2.

Learn more about UW Engineering's research and education programs on the Web at: www.engr.washington.edu. Go to "About Us," then News and *Washington Engineer*.

Provost Taps Engineering Leaders to Oversee UW Research Ventures

Not long after Phyllis Wise became UW Provost on August 1, 2005, she turned to the College of Engineering for the skills, experience, and administrative savvy needed to guide the university's \$1 billion research enterprise.

Last fall, Wise tapped Mary Lidstrom, the college's associate dean for new initiatives, for the position of vice provost for research. On September 1, when Mani Soma turns in his acting dean title, he will don a new hat, not his beloved chef's toque, but the title of associate vice provost for research. Congratulations, Mary and Mani!

Before we introduce you to these leaders and their roles, we offer a brief primer on the provost's office — the behind-the-scenes engine that keeps the university's wheels turning. Provost Wise is the UW's chief academic and financial officer. Nine vice provosts manage diverse arenas such as graduate and undergraduate education, budgeting and planning, global affairs, and tech transfer. The Office of Research plans and promotes new initiatives and assists researchers by providing central support services and management for interdisciplinary centers.

Provost Phyllis M. Wise

Wise holds a doctorate in zoology from the University of Michigan and has won National Institutes of Health awards for her innovative work on the role of estrogen in human learning and memory and how it influences aging of the brain. She was dean of biological sciences at UC Davis prior to assuming the provost's role at UW.



Vice Provost Mary Lidstrom

Lidstrom devotes 75% of her time to directing the Office of Research, and 25% to teaching and research in the area of genome sequencing. A professor of chemical engineering and microbiology, she holds the Frank Jungers Chair of Engineering. She earned a PhD in bacteriology at the University of Wisconsin.

Assistant Vice Provost Mani Soma

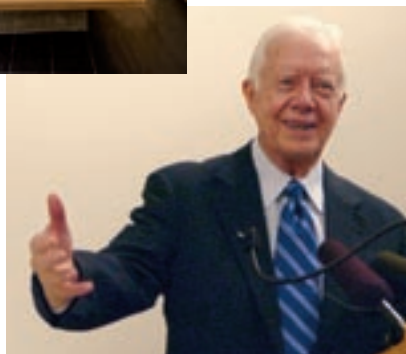
Soma will work with faculty to facilitate research and will focus on industry relations and information systems technology in a 40% appointment. A professor of electrical engineering, he holds a PhD from Stanford and works on integrated circuits and bioelectronic systems.



With a Presidential Seal of Approval, Bioengineering Opens New Era

An enthusiastic crowd of at least 800 braved wind and rain to celebrate the March 8 dedication of the William H. Foege Genome Sciences and Bioengineering Building. Though the skies were dark, three bright beacons for global health — Jimmy Carter, Bill Gates, and Bill Foege — spoke glowingly of the promise of the new building and the interdisciplinary work to be done by engineers and medical scientists. At a press conference Carter said the devices developed here will go into hospitals, clinics, and homes, and “will have a dramatic effect on the total cost of health care.” Foege believes that his namesake building will be “the place that sets the stage for global health in the future.”

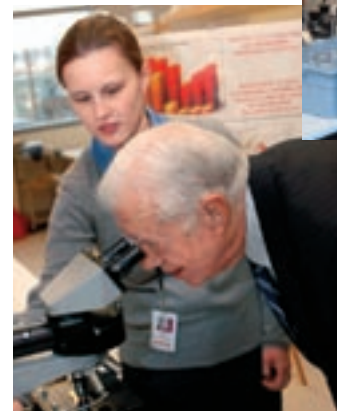
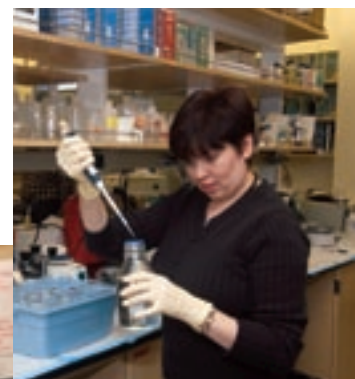
WILLIAM H. FOEGE (UW Medicine, '61) is a public health icon for leading the worldwide campaign to eradicate smallpox. He headed the Centers for Disease Control and Prevention during the Carter Administration and is now a senior fellow at the Bill & Melinda Gates Foundation.



Former President Jimmy Carter speaks to the press prior to the dedication. Top left: Striking design turns the underside of a staircase into a spot for lingering in Bioengineering's lobby.

More info at http://depts.washington.edu/bioe/about/news/Foege_Dedication/index.html

Left: Bioengineering Chair Yongmin Kim (L), William Foege, and Robert Waterston, chair of genome sciences, cut the ritual building-opening ribbon. Below: Bill Gates introduces former President Carter (seated at left with Bill Foege); at right are UW President Mark Emmert and Mani Soma, acting dean of engineering. Below right: Carter glimpses the micro world during a tour of the laboratories.



Building photos by Mary Levin; dedication photos by Valerie Hsu and Anita Wahler



We are proud of our students and faculty who have won an amazing array of honors and awards — too many to report them all here. Visit the news sections of the college and department Web sites for more.

Eggers Elected to NAE

Computer Science & Engineering Professor **Susan Eggers** is a new member of the National Academy of Engineering. She co-invented a revolutionary computer processing technology that makes more efficient use of a chip's computing power and boosts speeds by as much as 400%.

Four Faculty Elected to the American Association for the Advancement of Science

Cynthia Atman, professor of industrial engineering and the Mitchell T. Bowie and Lella Blanche Bowie Endowed Chair, directs the Center for Engineering Learning and Teaching and the Center for the Advancement of Engineering Education.

Alex Jen is the Boeing/Johnson Professor of Materials Science & Engineering and department acting chair. He has made pioneering contributions to the field of molecular photonics and to the development of novel materials that have enabled entirely new photonic devices.

Kannan Krishnan is the Campbell Professor of Materials Science & Engineering. His research has established fundamental correlations of magnetism, transport, and microstructure in technological materials and he has developed novel electron microscopy techniques.

Mary Lidstrom holds the Frank Jungers Chair of Engineering and is a professor of chemical engineering and microbiology. Her work focuses on biomolecular and metabolic engineering, and she has pioneered development of technology for multiparameter single-cell analysis.

◆ Winners ◆

◆ Student Honors

AERONAUTICS & ASTRONAUTICS students won three of six awards at the American Institute of Aeronautics & Astronautics Region VI Student Conference held at UC Irvine in April. **Takashi Maruo** placed first and **Alice Kunkel** second for undergraduates, and **Jeffrey Boulware** placed second for graduate students.

BIOENGINEERING Five graduate students have won National Science Foundation fellowships: **Jackie Callihan**, **Asanka Dewaraja**, **Kristy Katzemeyer**, **Kyung Park**, and **Lauren Shepherd**.

CHEMICAL ENGINEERING undergraduates swept the awards at the American Institute of Chemical Engineering Pacific Northwest Regional Student Conference at the University of Idaho in April. **Aaron Saks** placed first, **John Frostad** second, and **Zudtky Wisecarver** third.

COMPUTER SCIENCE & ENGINEERING graduate student **Michele Banko** has won a Google Anita Borg Memorial Scholarship for 2006–2007. She is one of 19 winners of the \$10,000 scholarship. UW CSE's **Annie Liu** and **Sunny Consolvo** were among 28 finalists who received \$1,000 awards.

ELECTRICAL ENGINEERING graduate student **Jue Wang** has been named a Microsoft Research Fellow, a two-year award. He and **Sudip Shekhar** are 2006–07 Intel Foundation PhD Fellowship Award winners.

◆ Faculty Honors

BIOENGINEERING AND CHEMICAL ENGINEERING Professor **David Castner** is a new Fellow in the Biomaterials and Engineering section of the Society for Biomaterials. Professor **Alan Hoffman** received the 2006 International Award from the Society of Polymer Science, Japan. Professor **Buddy Ratner** received the 2006 William Hall Award from the Society of Biomaterials.

CHEMICAL ENGINEERING Professor **Bruce Finlayson** has won the Dow Lectureship Award from the Chemical Engineering Division of the American Society for Engineering Education. **Mary Lidstrom**, professor and UW vice provost for research, has won the 2006 Microbiology Graduate Teaching Award from the American Society for Microbiology.

CIVIL & ENVIRONMENTAL ENGINEERING Professor **David Stahl** received the 2006 Procter & Gamble Award in Applied and Environmental Microbiology from the American Society for Microbiology.

COMPUTER SCIENCE & ENGINEERING Professor **Ed Lazowska** won a 2005 Association for Computing Machinery President Award, one of only seven awarded since 1985. Professors **Tom Anderson** and **Dan Weld** are new ACM Fellows.

ELECTRICAL ENGINEERING Professors **Blake Hannaford** and **Richard Shi** have been elected Fellows of the Institute for Electrical and Electronic Engineers. Professor **Sinclair Yee** has won the 2006 UW Outstanding Public Service Award.

MATERIALS SCIENCE & ENGINEERING Professor **Kannan Krishnan** is 2006 Professor-at-Large for the Institute of Advanced Studies at the University of Western Australia. He will spend two to three weeks a year at UWA in 2007 and 2008.

MECHANICAL ENGINEERING Professor **Wei Li** received a Presidential Early Career Award, at a White House ceremony in May. Emeritus Professor **Jens Jorgensen** was honored with the 2006 Bernard M. Gordon Prize from the National Academy of Engineering. He won the \$500,000 prize for his role in creating The Learning Factory, a multidisciplinary forum in which students work with industry to solve real-world problems.

Meet Matt O'Donnell

The college community officially welcomes Matthew O'Donnell as the Frank and Julie Jungers Dean of Engineering on September 1. Matt has visited campus several times to meet with faculty, staff, and students and to attend key events. We are delighted to introduce him to you.



Speaking at the May 5 Diamond Awards Dinner

“Did you hear what happened in Seattle last week?”

Matt O'Donnell wants that question to be on lips from Boston to Berkeley in the not too distant future. It will be a sign the science world is buzzing about innovations coming from UW Engineering. And it will be a sign that the college is breaking into the ranks of first-tier schools after a steady march into the top 20.

A solid-state physicist by training, our new dean is aiming for a quantum leap upward over the next decade. As chair of the Department of Biomedical Engineering at the University of Michigan, he comes from an engineering school ranked sixth nationally.

This New York native radiates high-energy, go-for-it drive and enthusiasm. “I’m excited to help the college become one of the truly premier engineering schools in the country. With support from the UW administration and the extraordinary faculty, students, and staff in the college, we are ready to take the next major step forward,” O’Donnell says.

As an expert in real-time ultrasound and ultra-fast optics, O’Donnell is a scientist–engineer who readily collaborates across disciplines. He also has significant industry and entrepreneurial experience. These are key reasons UW President Mark Emmert tapped O’Donnell to lead the college.

“This is the time for the university to stake out strategic investments in areas where we can truly make a difference, and engineering is one of them,” Emmert says. “Matt O’Donnell is just the right leader to expand programs at this critical time and, to borrow a phrase, re-engineer engineering.”

Education is one starting point. “In the twenty-first century it will be hard to be technologically illiterate and still function at a high level in society. You could get

away with that in the twentieth century, but not now,” O’Donnell says. “Engineering and technology will need to have a core role in a liberal education, rather than just a specialty role. We can make an important contribution to the UW in this regard.”

College leaders and faculty are considering a proposal to admit students to engineering majors in the freshman rather than junior year. O’Donnell strongly endorses that change and wants to accelerate its implementation. He recognizes that students typically find pre-engineering coursework exceedingly rigorous, and don’t always have a clear idea where it will take them.

“The most significant way to improve the student experience is to ‘own’ those kids when they first walk in the door at the UW. They need to feel they are engineers and part of the college from the beginning and we need to nurture them through all four years,” O’Donnell says. “They will be better engineers when they come out.”

O’Donnell confesses that one of the more difficult aspects of the decision to take the dean’s post is the need to reduce his teaching load. “I love to teach and I taught a large freshman class during my seven years as department chair at Michigan. After I get my feet on the ground at the UW I hope to develop a seminar series for graduate students focused on the transition and steps to becoming a high-level researcher.”

Over his career, O’Donnell’s own work morphed from the esoteric specialty of solid-state physics to the nascent field of biomedical physics in the late 1970s, through electrical engineering aspects of medical imag-

*“I’m excited to help
one of the truly premier
schools in the country
take the next major s*

ing tools in the 1980s, and then to bioengineering. What always turned his lights to bright, even as an undergraduate, was not just scientific theory, but the true engineer's zest for building things, be it a Geiger counter or a multichannel analyzer. At General Electric's research center in upstate New York he had the chance to help create new "gadgets," including the first whole-body, high-field MRI system and an ultrasound instrument using VLSI, which transformed the technology.

By 1990 he was ready for new challenges. "I really caught the imaging bug. I love to make pictures, but I wanted to be a bioengineer and integrate the life sciences and physical sciences through academic research," he explains. "There is absolutely no cooler thing than to see one of your devices used in the clinic."

That goal took him to Michigan, where he focused on imaging to monitor cellular and molecular interactions and to measure function, such as catheter-based optical systems for coronary arteries.

In describing the "big goal" for his research, O'Donnell zooms from molecular scale to wide-screen vision in a nanosecond. "My dream for these tools is transformation of the health care system from 90% treatment and 10% diagnostics and prevention to 50% diagnostics and prevention and 50% therapeutics."

The path, he explains, involves cellular and molecular-level diagnostic tools that are "noninvasive, easy, and cheap" and will foster a more holistic approach to health care.

He will continue his imaging research here and is eager to explore connections in a region he calls "an absolute center" of

bioengineering. Other prime draws are the UW's growing focus in molecular engineering and the strong track record of interdisciplinary work throughout the university and the College of Engineering.

O'Donnell believes that the launching pad for the quantum leap upward must be a college-wide culture of excellence in which decisions "always go in the direction of quality." He envisions UW Engineering as a highly respected research engine, an educational innovator, and a leader on campus, across the nation, and worldwide.

One additional internal measure of success will be that everyone in our community of innovators has a lot of fun along the way. He's also not worried about the Northwest's reputation for gloomy rain.

"I'm genetically Irish," he says. "Mist doesn't bother me." Just don't offer him a green beer — in his view a corruption of true Irish tradition. ■

Photo by Chip Van Gilder for Team Photogenic

*the college become
ier engineering
y. ... we are ready to
tep forward."*

A Matt O'Donnell Snapshot

Born/Raised: Bronx and Yonkers, New York

Education: University of Notre Dame
BS in Physics, PhD in Solid State Physics

Academia:

University of Michigan, Ann Arbor (1990–2006)
Chair, Biomedical Engineering Department (1999–2006)
Jerry W. and Carol L. Levin Professor of Engineering (1998–2006)
Professor, Biomedical Engineering (1997–2006)
Professor, Electrical Engineering & Computer Science (1990–2006)

Yale University

Research Fellow, Electrical Engineering (1984–1985)

Washington University, St. Louis (1976–1980)

Sr. Research Assoc. in Physics / Research Instructor in Medicine
Postdoctoral Fellow in Physics

Industry:

General Electric Company, Schenectady (1980–1990)
Physicist, Research and Development Center

Key Honors/Affiliations:

Fellow, AIMBE (American Institute for Medical and Biological Engineering)
Fellow, IEEE (Institute of Electrical and Electronics Engineers)
University of Michigan Teaching Awards
College of Engineering, 1996
Electrical Engineering & Computer Science, 1995
Member, American Physical Society and Sigma Xi
Associate Editor, *Medical Imaging*
Chair, Biomedical Imaging Technology Section, NIH

Research: Biomedical imaging, optics, and ultrasonics; nano-micro technologies

Innovation: 53 patents (50 issued)

Enjoys: Tennis, skiing, reading, and book clubs
Recently read: *The Swallows of Kabul*



The O'Donnell Family: Matt with his wife, Catherine, a journalist, and sons Brendan, a UW graduate student in Earth & Space Sciences, and Sean, a junior at the University of Michigan.

EE Celebrates



David Allstot, EE chair, welcomes guests to the celebration.



Electrical Engineering's centennial celebration on April 29 drew more than 200 alumni, faculty, staff, students, and friends for a look back at EE history and a look forward to what the 21st century may bring. Lab tours also gave attendees a sneak preview of emerging innovations. The day concluded with a festive dinner that featured a keynote speaker, live music, and reminiscing and catching up with classmates, faculty, and colleagues.

Farewell to Two Pioneers and "Legends in Their Own Time"

UW Engineering has lost two prominent alumni. Both were pioneers, one in the air and one on the ground, who challenged the physics of speed.

Scott Crossfield: "The Right Stuff"

Legendary test pilot Scott Crossfield, the first person to fly at twice the speed of sound (1953), is our only alum (BSAA '49, MSAA '50) immortalized on the silver screen, in the 1983 film *The Right Stuff*. In 1955 he went to work for North American Aviation to help design the X-15, which he piloted more than a dozen times. Crossfield died at age 84 in the April 20 crash of a Cessna he was piloting. (http://seattlepi.nwsourc.com/local/267536_crossfield21.html)

Bill Kirschner: Revolutionary Skis

H. William Kirschner (BSME '39) invented an icon among Olympic-caliber downhill speed demons and recreational skiers on slopes from Crystal Mountain to the Alps. His fiberglass K2 skis, made on Vashon Island, transformed a sport and an industry. He died April 23 at age 87. (<http://www.seattletimes.com>; search-words are: His skis were legendary)



Photos by Team Photogenic

Left: Professor Emerita Irene Peden; Center: Stewart Wu (MS '85, PhD '90), a program panelist, and Teresa Wu; Right: John (BS '67) and Laurel Coltart look over a sample handler for genome analysis.



Alum Tom Draeger (CE '68), left, president of Bechtel Construction Operations, hosted the tour. With him is Howard Wahl (CE '57), a former leader at Bechtel.

Alumni Go "Behind the Scenes" at Tacoma Narrows Bridge

About 40 alumni and friends of UW Engineering got a close-up look at the construction of the new suspension bridge across the Tacoma Narrows during a fall 2005 visit sponsored by the college and the UW Alumni Association. After a slide-illustrated briefing on the \$849-million project, the group took a hardhat tour of the construction site and along the catwalk of the old bridge for an upclose look at the new span. Read more about the tour in the May 2006 issue of *Washington Engineer*: www.engr.washington.edu/enews.

You Have a Lot to Be Proud of.

Join the UW Alumni Association today and \$10 will go to the scholarship fund of your UW college.

You will get a ton of member benefits, and you'll be showing your Husky Pride. What could be better than that?

Just go to

UWalum.com/supportscholars/

Or call 1-800-AUW-ALUM.



2006 Diamond Awards

Sparkling Event Honors Outstanding Alumni



Matt O'Donnell, incoming dean, congratulates Chumpol Na Lamlieng. Ray Bowen, dean emeritus and member of the awards committee, looks on.

Photos by Chip Van Gilder for Team Photogenic



Diamond Award Honorees L-R: Al DeAtley, Chumpol Na Lamlieng, Jeffrey Dean, and Jeremy Jaech.

College leaders, faculty, alumni, and friends gathered in the Allen Center's Microsoft Atrium on May 5 for the first annual Diamond Awards Dinner to honor outstanding alumni.

Distinguished Achievement — Chumpol Na Lamlieng

Chumpol built Siam Cement Group into Thailand's biggest industrial conglomerate, with capitalization of \$7 billion and 35,000 employees. Recently retired, he chairs the board of SingTel Group and is a member of the Asia Pacific Advisory Committee to the New York Stock Exchange. He holds a BSME ('64) from the UW and an MBA ('67) from Harvard.

Entrepreneurial Excellence — Jeremy Jaech

Over the past 20 years, Jeremy has co-founded the software companies Aldus (acquired by Adobe), Visio (acquired by Microsoft), and now Trumba, which he leads as president and CEO. Jeremy earned an MS ('80) in computer science at UW and is an active volunteer for both the college and university.

Distinguished Service — Albert DeAtley

A pillar in the asphalt paving industry, Al led the creation of a national foundation that provides scholarships for civil engineering students. He owns Superior Asphalt Co. and is active in civic causes in the Yakima Valley. He studied at the UW and is a member of the UW Construction Hall of Fame.

Early Career — Jeffrey Dean

Millions of people satisfy their curiosity every day by using Jeff's handiwork. He helped develop and implement three generations of Google's Web crawling, indexing, and query serving systems. Jeff is now a Google Fellow in the systems infrastructure group. He earned his PhD ('96) at UW CSE.



Left: AA alum Suzanna Darcy-Henneman and Jack Darcy-Henneman. Right: MSE alum Bonnie Dunbar, a member of the awards selection committee, introduces honoree Al DeAtley.



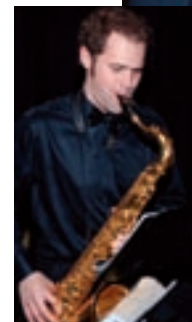
Tom Delimitros, chair of the awards committee, and Jeremy Jaech.



ME and IE alum John Purvis and Nancy Wright dance to the lively music of a brass quartet.

For more information on the award winners and photos of the May 5 event, and to make a nomination for the 2007 awards, visit:

www.engr.washington.edu/awards/diamond.html





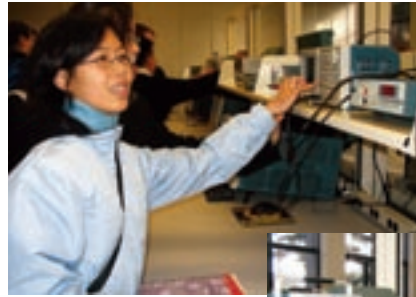
Corporate Gifts Lead to Creation of One New Lab and Another in the Works

Micron Funds Combinatorial Materials Exploration

In the works is an interdisciplinary laboratory based in Materials Science & Engineering that will be part of a global expansion in the search for next-generation materials. Scientists worldwide expect that this area of research will do for materials science what the human genome project has done for biotechnology.

Micron Technology, Inc. and the Micron Technology Foundation have committed approximately \$1 million in cash and in-kind support for the first of three phases of lab development, through April 2007.

MSE Professor Fumio Ohuchi will direct an interdisciplinary team that includes scientists from the Departments of Electrical Engineering and Physics. In the Micron CME lab, state-of-the-art equipment for materials synthesis and characterization will expedite the team's quest to discover new materials for semiconductors and many others uses. The lab also will enable the UW to compete more effectively for federal research grants in this burgeoning field.



Students check out the Tektronix Undergraduate Research Laboratory at the November 18 dedication.

Right: Jim Brophy (C), local sales account manager of Tektronix, points out features of the equipment.



Tektronix Gives a Boost to EE Undergraduate Research

The Department of Electrical Engineering opened its first lab dedicated solely to undergraduate research work. Tektronix, Inc. donated more than \$350,000 worth of equipment and furniture to outfit the lab in Sieg Hall. Undergraduate research is an increasingly important aspect of training engineers for the twenty-first century.



“Our alumni, friends, and corporate partners are helping to create the future of UW Engineering. Support for faculty and students, and cutting-edge lab facilities, leads to innovations that benefit us all.”

STEVEN R. ROGEL, Chair, COE Campaign Executive Committee
Chairman & CEO, Weyerhaeuser Company

“Crunching the Numbers” Reveals Wisdom of Planned Giving

A “car guy” for as long as he can remember, G.R. “Duke” Williams started making and saving money at age 11, and proudly bought a new '63 Corvette at age 16. After earning his BSME ('68) at the UW, his career ranged from production engineer at Pontiac Motor Division, to Air Force missile maintenance officer and staff engineer on a communications satellite program, and then computer industry sales/marketing specialist for computer-aided engineering products. As the California economy sank in 1991, he departed IBM and “hunkered down” as a private investor.

His investing success and an inheritance from his parents enabled him to establish fellowship endowments at his alma maters: UW, Wisconsin (MSME), and UCLA (MBA). One of many in the “boomer” generation who never married or had children, Williams decided to make an estate plan. “Gift annuities made sense because I want to offload portfolio management tasks as I get older — let the universities take care of it,” Williams says. “Crunching the numbers shows gift annuities provide a high after-tax return/risk ratio, and I can maintain my lifestyle on the income.” The Williams Family Endowed Fellowship in Mechanical Engineering also honors his parents. “I want the Williams family to leave a legacy that will enable others to achieve success too. More people need to step up to help educate today's engineering students. It's vital to our country.”



Duke Williams as a UW freshman in 1965. In some ways, he hasn't changed a bit. He's still a car nut and still owns his '63 Corvette. Today, though, he runs track events in his 1976 Cosworth Vega and 1991 Toyota MR2.



2000 ~ Donors for Engineering Endowments ~ 2006

Creating endowments that support faculty and students — the College of Engineering's greatest assets — is a priority of Campaign UW: Creating Futures. Endowments provide resources in perpetuity that support education and research. Generous gifts from alumni and friends since July 1, 2000 have established 89 endowments in the categories listed here. Minimum amounts required to establish engineering endowments are in parentheses.

1	Deanship (\$5 million)
6	Chairs (\$1.5 million)
9	Professorships (\$500,000)
4	Regental Fellowships (\$500,000)
3	Presidential Fellowships (\$250,000)
15	Fellowships (\$100,000)
29	Scholarships (\$50,000)
22	Funds (\$25,000)

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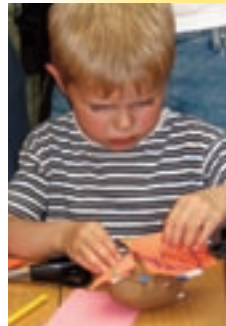
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Top: Civil Engineering's eye-catching display of infrared imaging technology drew the curious. Left: A Mechanical Engineering student demonstrates how a flame reacts to different gas flow conditions. Is this any way to heat a slice of pizza?



Students check out the Aeronautics & Astronautics hypervelocity ramjet accelerator. Right: In Electrical Engineering, a budding engineer creates a potato person with electrical components.



The April 28–29 open house set an all-time attendance record! Some 9,800 people came, saw, questioned, poked, prodded, designed, tested, learned a lot, and had a great time at more than 135 exhibits from our 10 departments. Friday drew K-12 students from more than 115 schools, and many families came on Saturday.

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