

Catalyst

UW ChemE x 3 = The Clasen Family

We are always happy to hear from our alumni but it is very rare indeed when tidings come from three generations in a row. Meet **Katie Clasen**, now a senior who will be the third in an unbroken line of UW Chemical Engineers when she graduates in Spring.

"My grandpa used to have me set up contraptions in the backyard to trap moles!" Katie laughs, reflecting on how her grandfather, the original UW ChemE alumnus, always pushed her to think like an engineer while growing up. "'Katie, how are you going to solve this?' he would ask." But, it was not until she worked at the Shell Puget Sound Refinery as a summer student hire that Katie seriously considered chemical engineering as a career path. "My first experience with heat transfer was actually looking at the inside of a heat exchanger and having an engineer describe it to me... Looking at pipes and machinery that were so complex made me curious about chemical engineering." The following summer Katie dug out her

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Rich Clasen (BS '86), Katie Clasen, Prof. Berg, Don Clasen (BS '70)

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Researchers Making an Impact

Hugh Hillhouse: Solar in Seattle



*Hugh Hillhouse
Rehnberg Chair Professor*

Hillhouse on solar research: "This amazingly abundant, clean, and renewable energy source provides the key to meeting our future energy needs, as we only need a small fraction of this resource to supply all the energy requirements necessary to sustain our global civilization."

Seemingly defying logic, **Hugh Hillhouse** boldly studies solar energy in the most sun-deprived region in the lower 48 (see map). However, Hillhouse explains, clouds tend to scatter light rather than absorb it. Most of the scattered light still reaches solar cells which can turn the light into power. Hillhouse adds, "Solar cells are much more indifferent to the Seattle skies than we are." According to Hillhouse, a bonus of studying solar here is that "Washington State is one of the best states in the country for supporting solar energy." Not only does Washington have net metering (where people who generate power from solar cells can put it back on the grid and only pay for the net electricity they use), but they get paid for the electricity they generate – a huge incentive for consumers to invest in solar energy.

The price of electricity from solar cells has been dropping dramatically, but it is still more expensive than electricity from dams, coal, and natural gas. Hillhouse wants to change this by

See Hillhouse, pg. 3

Message from the CHAIR

This has been a year of growth and change for both Chemical Engineering and myself, as I embark on my second year as department Chair. This edition of Catalyst highlights some of these changes and growth but more importantly, it captures and celebrates the essence of what makes the department such a special space for learning and discovery: the quality of its students, staff and faculty and the dedication of its alumni.

Last year, we added three professors to our ranks, making ChemE the largest it has ever been. Vincent Holmberg, our newest Assistant Professor, brings expertise in large-scale nanomaterials synthesis and characterization. Associate Professor Venkat Subramanian, who joins us from Washington University in Saint Louis, is a world leader in computational management of energy systems and the first university-level hire under the Clean Energy Institute (CEI) directed by former Chair Dan Schwartz. Finally, Dr. Andy Kim – the inaugural John C. Berg Lecturer – is helping us reinvent our infrastructure and laboratory classes. Even more exciting, we are on track to hire two new faculty this year, one of whom will develop battery materials of the future and be jointly appointed in Materials Science and Engineering.

September marked a monumental milestone: the celebration of 50 years of distinguished teaching and research by Prof. Berg. Over 370 of you attended this event, which fittingly so, was the largest ever organized by the College of Engineering.

To improve the student experience and equip our undergraduates with skills to succeed in a changing world, we have initiated a program of much needed renovations and upgrades in venerable Benson Hall. The first fruit of these efforts is the Bindra Innovation Lab, a multi-use instrumentation space for teaching, prototyping and research made possible thanks to the generous support of Jeet and Jan Bindra. We are planning a number of additional projects to enable our innovation agenda and I look forward to sharing them with you in future issues of Catalyst.

Contact Chair Baneyx at chechair@uw.edu



François Baneyx

The Clases (Continued from cover)

overalls and work boots and returned to the refinery, knowing that her choice of school would be an easy one.

Katie's experience with Shell made the concepts she was learning in class come alive. The fluid mechanics and transport phenomena fundamentals she learned during her first year were all about the "stuff running inside those pipes." During her junior year, she interned with Ashland Water Technologies in Texas. "I didn't know a single person in Texas. But I met so many wonderful people and made so many friends." And she got to see firsthand how the theoretical materials she was learning in class translated to real life industrial applications. As part of the ChemE Co-op program, Katie packed her bags again in Spring 2014 to return to Texas, this time to intern with the Process Innovations division of the Eastman Chemical Company. There, she sought out and found a woman engineer mentor who talked to her about women in engineering and in managerial roles. "That was a really powerful connection and having role models in industry has been important to me." Katie emphasizes the importance of mentorship, both seeking mentors and being a mentor. In fact, she currently serves as a mentor for two freshman students through the ChemE Mentorship Program.

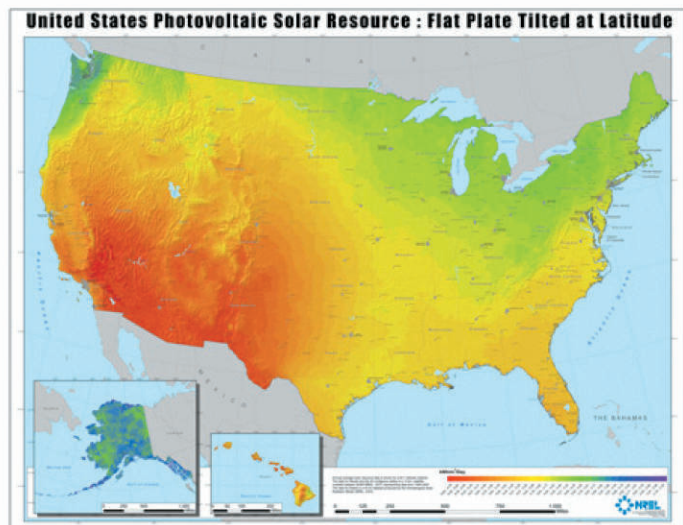
Needless to say, Katie is also an academically stellar student who was the inaugural recipient of the John C. Berg Scholarship, dedicated to supporting outstanding undergraduates like Katie. Professor Berg, who celebrated his 50th anniversary at UW this past Fall, taught all three generations of Clases. "At home, we share stories about Professor Berg," Katie smiles, describing Berg as incredibly brilliant and sharper than anyone she's ever met. The whole family attended Professor Berg's celebration in September. "I feel honored to be a recipient of his scholarship and be associated with all that he's done. And I hope to continue that tradition when I'm older to give back to the university in the way that has given me."

Asked what UW ChemE means to her, Katie takes a moment to look outside the Hub. "I almost forgot how beautiful this campus is. All the professors are great about supporting students from start to finish, and you get to know people really well. I feel pretty lucky to be involved with the University of Washington and Chemical Engineering here." And we at UW ChemE are honored to have Katie as a student. Not only is she hungry for knowledge and actively crafts her own educational experience, but she lights up the room with her brilliance and passion for life.

Katie returned to the Shell Refinery in Anacortes over the summer (she "absolutely loved it!") and she started her senior research in Fall. "I've been focused on industry experiences, so I'm excited to add research to the mix." And like her peers, Katie is thinking about graduation. "It's coming up way too fast!" she says, throwing her hands in the air. "But it's an exciting time and I'm looking forward to the opportunities and experiences ahead." Growing up with a grandfather and a father who both work in the energy sector and from her own internship experiences, Katie would like to work in the energy or chemical industry. She should not lack suitors. ■

Written by: Shoko Saji

Hillhouse *(Continued from cover)*

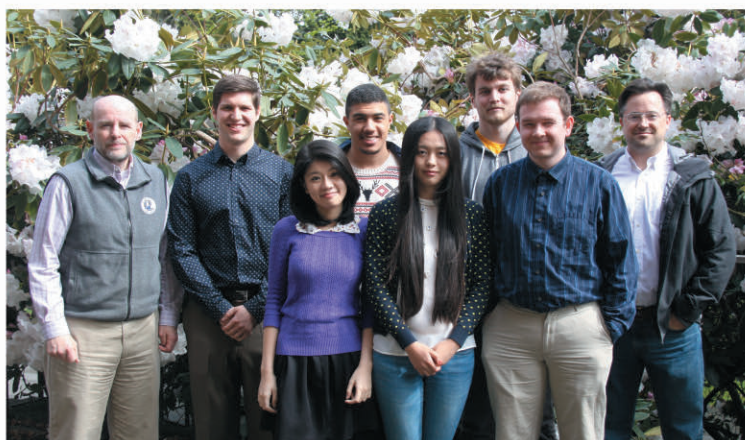


The blue color of the Seattle area shows how little sun Seattle receives compared to the rest of the country

creating solar cells that are cheap and efficient enough to make the technology the low-cost choice for the majority of the population. Many new energy technologies rely on materials that are either rare in the Earth's crust (like tellurium in CdTe solar cells) or are not distributed broadly in a geopolitical sense (like the element neodymium used in wind turbines or lithium used in electric car batteries). However, Hillhouse and his team have invented a new way to use copper, tin, zinc, and sulfur compounds for solar photovoltaic technologies (technologies that are able to produce electricity from exposure to visible light, in this case the sun). These raw materials are abundant, inexpensive, and are distributed around the planet. The Hillhouse team was the first to develop chemistry to make a stable "molecular ink" with a non-toxic solvent that yields a high efficiency solar cell. The ink is sprayed onto a surface and heated to produce the active layer of a low cost solar cell. Hillhouse's team has made solar cells with these inks close to 11% efficient. Photovoltaic inks present a huge manufacturing advantage because they are quick and easy to coat onto surfaces, making the technology much cheaper to use and scale-up than crystalline silicon or gallium arsenide technology.

Beyond coming up with an inexpensive solution, Hillhouse wants to make sure the entire process of creating photovoltaic inks is environmentally friendly. To ensure that the solution is sustainable, Hillhouse works with a team of UW experts to study the entire life cycle of the product—from cradle to grave. This National Science Foundation (NSF)-funded project includes Alison Cullen from the Evans School of Public Affairs; Daniel Gamelin and David Ginger, Chemistry; Christine Luscombe, Materials Science and Engineering; and Scott Dunham, Electrical Engineering. Before embarking on a large-scale project manufacturing the innovative solar cells, they want to know what the impacts to the planet will be. They want to answer many questions: What are the health risks? How much energy will it take to create the cells? What are the waste products? To help answer these questions, senior undergraduate chemical engineering students are designing manufacturing plants to create the ink precursors as their capstone design project. The team will study how the manufacturing plants could impact the surrounding environment and determine if there are better ways to process the materials. The researchers in this project are adding to previous research and developing the big picture of how the technology can be sustainable, healthy for people and the environment, and economically viable.

The technology invented in Hillhouse's lab still needs improvement to be able to compete with commercially-available solar cells; but, with seed funding from the new UW Clean Energy Institute, the team is researching ways to combine their ink technology with a new photovoltaic ink (by itself capable of reaching 15% efficiency) to produce tandem solar cells. Tandem solar cells are able to capture and efficiently use a broader spectrum of sunlight by featuring two different inks, each optimized to a particular band of the spectrum. The two molecular ink technologies are matched almost perfectly to make a tandem solar cell. These devices could reach 25% efficiency. These new tandem solar cells would be very low cost and have the potential to out compete other photovoltaic technologies and even electricity from natural gas and coal. Hillhouse enthusiastically states, "It's going to dramatically change the economics of solar energy conversion – and that is going to change everything." Let's hope he succeeds soon. ■



Alphabetically: Richard Caulkins, Van Ahn Do, Hugh Hillhouse, Brad Holt, Michelle Lai, Zach LaTurner, Tyler Volk, Payton Ward

*Written by: Laura Baldwin, Office of Research
Photo credit: Matt Hagen*

2014 Distinguished Alumnus in Industry, Jud Virden



Jud Virden

Virden is the Associate Laboratory Director of Energy and Environment Directorate at the Pacific Northwest National Laboratory (PNNL), where he leads a team of 1,000 to deliver science and technology solutions for energy and environmental challenges. He helped shape national public/private partnerships critical to moving from discovery to deployment. His special PNNL assignments included a 2009 assignment at Department of Energy's headquarters to assist in developing U.S.-China collaborative research priorities. He also served in Flint, MI to work with General Motors, Ford, Chrysler and the United States Council for Automotive Research. Virden holds two U.S. patents and is a recipient of numerous awards, as well as serving on a number of boards including the American Council for an Energy Efficient Economy and the visiting committee for the UW's College of Engineering. Virden earned a Bachelor of Science degree and a Ph.D. in Chemical Engineering from the University of Washington. We are honored to call Jud our alumnus. ■

At the 2014 Chemical Engineering Graduation Ceremony held on June 13, we were honored to have guest speaker **Dr. Jud Virden** (BS '83, PhD '91), this year's recipient of the department's **R. W. Moulton Award for Distinguished Alumnus in Industry**. The graduation took place in Kane Hall and was filled with graduates and their families, as well as faculty and staff who every year look forward to celebrating student success on this special day. In his address, Virden fondly remembered how his career started at 3M thanks to the encouragement and kind push from Prof. John Berg. Virden drove to Minnesota in his Dotson with \$200 in his pocket. "You can't predict what your journey is going to be like... Don't be afraid to work hard and take risks," Virden advised the graduating class. "Contribute to something bigger than yourself... Follow your passion and give energy to it."

"Don't be afraid to work hard and take risks"



Mary and Jud Virden with Prof. John Berg

Inspire New Ideas - Support ChemE



*William Voje Jr., ACES President
at the 2014 Graduate Symposium*

An engineering education is out of financial reach of many talented students, and private support is essential to our success.

Endowed scholarships, fellowships, professorships and chairs, along with flexible unrestricted gifts, can translate into real opportunities for our students and faculty. Planned gifts, such as bequests, real estate and annuities offer creative and flexible strategies for your estate and charitable planning while providing you with income and potential tax advantages. We invite you to join UW Chemical Engineering in our mission to foster knowledge and solutions for a changing world.

To learn more about supporting Chemical Engineering with a gift, please contact Jessie Muhm at jmuhm@uw.edu or 206.685.7748.

Jagjeet and Janice Bindra Innovation Lab

On January 16, Chemical Engineering celebrated the inauguration of the brand new Jagjeet and Janice Bindra Innovation Laboratory. **Jagjeet and Janice Bindra** have been avid supporters of ChemE for the past 37 years. With their generous gift, we were able to transform a Benson lab into a shared instrumentation facility (SIF) dedicated to innovation. This multi-use space houses sophisticated instrumentation that will not only support the research of our graduate students but also enable product development and prototyping by undergraduates enrolled in the entrepreneurial design curriculum. The Bindra Lab will also be used to teach two new courses: an instrumentation class targeted to our M.S. students and an undergraduate-level polymer laboratory course that will be counterpart of the highly successful surface and colloids laboratory class.

Both Jeet and Jan Bindra graduated from UW in 1970 - Jan received a BA in Spanish and Jeet received MS in Chemical Engineering. Jeet chairs the College of Engineering's Visiting Committee. In 1997, ChemE recognized Jeet's accomplishments with the R. Wells Moulton Distinguished Alumnus Award and in 2006 the College gave Jeet their highest honor for alumni - the Diamond Award for Excellence in Industry. We are grateful and humbled by their generosity. ■

Jeet and Jan Bindra



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www.cheme.washington.edu



Bruce A. Finlayson Lecture Features John F. Brady

The Lecture, named in honor of **Bruce A. Finlayson**, Rehnberg Professor Emeritus of Chemical Engineering, features distinguished chemical engineers who demonstrate exceptional scholarship, teaching, and service in their field.



John F. Brady (left) and Bruce A. Finlayson (right)

The 2014 Bruce A. Finlayson Lecture, held in May, featured **John F. Brady**, Chevron Professor of Chemical Engineering at the California Institute of Technology. His research interests are in the mechanical and transport properties of two-phase materials, especially complex fluids such as biological liquids, colloid dispersions, suspensions, and porous media. He gave two lectures - "Chemical Swimming and Active Matter" (research) and "The Micromechanics of Colloidal Dispersions" (public). Dr. Brady has been recognized for his work by several awards, including a Presidential Young Investigator Award, the Professional Progress Award of the American Institute of Chemical Engineers, the Bingham Medal of the Society of Rheology and the Fluid Dynamics Prize of the American Institute of Physics. Dr. Brady served as an associate editor of the Journal of Fluid Mechanics and editor of the Journal of Rheology. He is a fellow of the American Physical Society and a member of the National Academy of Engineering. ■

John C. Berg

ChemE **SPECIAL REPORT**

More event photos on cheme.washington.edu



Mary Armstrong (Adv. Board Chair, BS '79) & Berg



Alumni shared their Berg memories



Graham Bailey (BS '85) & John Diambri (BS '85)



Clay Radke (BS '66) & Berg



Guests enjoyed the surprise slideshow



Pauline Jacob (Ph.D. '94) & Jill Seebergh (Ph.D. '95) with Berg

50 Years of Excellence

ChemE Professor John C. Berg has had a profound effect on his students, colleagues, and the fields of chemical engineering and molecular engineering & sciences. 370 guests attended the celebration in September to honor John's excellence in teaching and research and his continued support for our students and the ChemE Department. We are incredibly proud to call John our own.



Giving & John Berg

John has established three endowed funds in Chemical Engineering - a scholarship, fellowship and lectureship.

We hope to grow the funds to guarantee that students and faculty are supported for decades to come and honor John's outstanding legacy.

If you'd like to contribute to one of these funds, please contact Jessie Muhm at jmuhm@uw.edu or 206.985.7748.

Eric Denton: 2014 Diamond Award Distinguished Achievement in Industry



Eric B. Denton, P.E.

Modern sawmills can credit **Eric Denton** for bringing the industry into the computer age. His contributions revolutionized the sawmill process, reduced waste and massively increased yield and productivity. A remarkable engineer with vision and conviction, Eric persisted in the face of immense difficulties and brought about major change in a traditional industry. Beginning about 1970, Eric pioneered computer-automation in sawmill centers and created an innovative patent to scan log shapes, long ahead of its time.

Eric began his career of innovation after graduating from the UW (BS & MS '51) and serving time in the U.S. Army. In the midst of his UW years he received an ROTC commission and led a 40-man infantry platoon in Europe. Eric joined Monsanto where he played a key role in developing a Seattle plant that converted pulp mill waste into artificial vanilla, enough to flavor all the ice cream in the country. Following his success at Monsanto, Eric joined Weyerhaeuser where he used his engineering skill and leadership over a 30-year career, to make profound and lasting contributions to company plants around the country.

Tasked with developing system controls for sawmill machine centers, Eric took advantage of emerging computer technology to replace visual scanning of log dimensions. Using primitive PDP-8 mini-computers on chip-ping head-rigs, with only 4k memory, huge gains were realized in yield. Though originally resistant, mill supervisors eventually drove the efforts to keep the systems operational. Weyerhaeuser's investment of \$30,000 for Eric's scanner resulted in close to a million dollar gain per machine each year.

Eric next addressed the issue of visually judging tree-length logs to determine available lumber, called bucking. Eric developed "auto-bucking", a patented system of scanning the shape of full-length logs in a more powerful mini-computer to calculate the optimum sawmill log lengths for the highest value. Today, nearly all mills are equipped with this technology. ■

COE Advancement

Leadership Seminar Series

- **Paul Boys** (BS '68, MS '75), Retired, U.S. Environmental Protection Agency
- **James Chang** (PhD '86), CEO, TaiMed Biologics
- **John Huckabay** (Honorary Alumnus), Managing Director, ChemEAlum Ltd.
- **Richard Hyman** (BS '78), Vice President of Business Development, NVIDIA
- **Mirna Mujacic** (BS '00, PhD '06), Senior Scientist, Amgen
- **Scott Roberts** (PhD '74), Retired, Shell Oil Company
- **John Smolik** (BS '71), CEO, Plymouth Soundings, LLC.
- **Geoff Stensland** (BS '81), President, ChemE Solutions, Inc.

Young Alumni Panel:

- **Margaret Donegan-Ryan** (BS '09)
Senior Associate, Environ
- **David Gasperino** (BS '03)
Thermal-Fluids Modeling Engineer, Intellectual Ventures
- **Paul Roeter** (BS '08)
Project Manager, CBRE
- **Andrew Steiner** (BS '07)
Sr. Business Analyst IT, The Gates Foundation

The Leadership Seminar Series, now in its eighth year, provides an opportunity for students to explore the depth and breadth of a Chemical Engineering degree. It's an interactive forum for undergraduate and graduate students to learn from industrial, academic and government leaders, covering a variety of topics in chemical engineering profession including career planning, management, entrepreneurship, ethics, effective planning, interpersonal skills and strategic decisions.

We thank the alumni who took part in this year's LSS!

Student Honors and Achievements

Graduate Students

- Rice Business Plan Competition Heinlein Commercial Space Activity Prize: **Pablo de la Iglesia & Greg Newbloom**
- ACS Excellence in Graduate Polymer Research Award: **Ye-Jin Hwang**
- AIChE Poster Competition
 - 1st place in Soft Matter: **Greg Newbloom**
 - 1st place in Reaction Engineering: **Kayla Sprenger**
- ACES Graduate Symposium
 - Poster 1st place: **Kasia Nowinski**, 2nd place: **Andrew Collord**
 - Talk 1st place: **Mark Borysiak**, 2nd place: **Alaina Floyd**
 - Faculty Lecture Award: **Charlie Corredor**
 - High Impact Paper Award: **Ye-Jin Hwang**
 - McCathy Teaching Award: **Trent Silbaugh**



Undergraduate Students

- AIChE National Student Design Competition Honorable Mention:
Tami McTaggart, Arin Greenwood, Kim Huynh
- AIChE Regional Student Competition
 - 1st place: **Zach Girod**, 3rd place: **Casey Hsu**
 - Honorable Mention: **Zack Jarin**
- College of Engineering Dean's Medal for Academic Excellence:
Rainie Nelson
- Inaugural ChemE Bowen Design Award Recipients:
 - Team Coastin' - Conor O'Brien, Curtis Whittle, Zach Jarin, Phillip Gulsrud**
 - Team Kegel - Greg Kegel**



*The 2014 Awards Day Luncheon (above)
Undergraduate class of 2014 (below)*



Photo provided by Wilson Chan

ChemE Welcomes Three New Faculty Members

Venkat Subramanian

In partnership with the Clean Energy Institute (CEI), ChemE set out to recruit a faculty with expertise in batteries and energy storage. In September, **Venkat Subramanian** joined ChemE as an Associate Professor.

Prof. Subramanian's research focuses on modeling, analyzing and designing cost-effective, energy-efficient and environmentally benign electrochemical systems, in particular devices such as batteries, solar cells, fuel cells and sensors. His group has developed the fastest algorithm reported in the literature for simulating the performance of lithium-ion batteries. Subramanian's research is well aligned with the mission of CEI and a perfect complement to the department's strengths in energy materials and systems. He will hold an adjunct appointment in Electrical Engineering, a membership in CEI, and will be an active collaborator with the Pacific Northwest National Laboratory (PNNL). Prior to joining the UW, Subramanian was an Associate Professor in the Department of Energy, Environmental and Chemical Engineering at Washington University in St. Louis and the principal investigator of the Modeling, Analysis and Process-control Laboratory for Electrochemical systems (M.A.P.L.E. Lab) - a position he had held since September 2009. His past academic appointments include Assistant and Associate Professor with Tennessee Technological University and Research Assistant Professor with the University of South Carolina after he earned a Ph.D. in Chemical Engineering from the same institution in 2001. ■



Vincent Holmberg



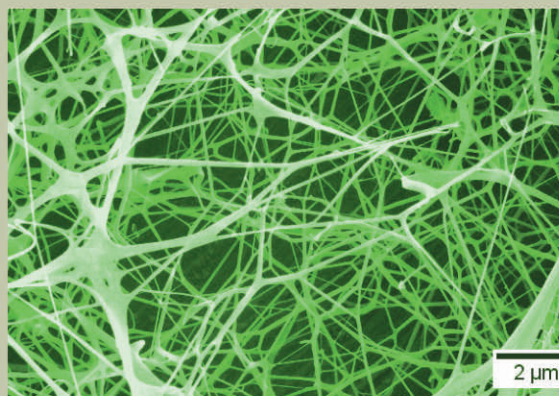
Vincent Holmberg joined ChemE in January 2015 as an Assistant Professor. Prior to joining the UW, he was a postdoctoral fellow in the Optical Materials Engineering Laboratory at ETH Zürich and earned his Ph.D. and M.S.E in Chemical Engineering from The University of Texas at Austin.

Prof. Holmberg's research focuses on the synthesis, application and integration of nanomaterials. His laboratory is devoted to the large-scale production of nanowires and nanocrystals, with an emphasis on colloidal nanomaterials synthesized by scalable solution-based and supercritical fluid-based processes. He also plans to use advanced in situ electron microscopy techniques to study transformations and dynamic processes in nanomaterials, directly within the electron microscope. Holmberg hopes that this platform will generate valuable insights into nanomaterial dynamics, and eventually lead to the development of a new class of fabrics, fibers, and other macroscopic materials built from assemblies of nanostructures.

Holmberg has received numerous awards including the Hertz Thesis Prize for his dissertation (1 of 48 awarded in the United States over the last 30 years), the ISASF PhD Thesis Award, Marie Curie ETH Zürich Postdoctoral Fellowship, Hertz Fellowship, NSF Graduate Research Fellowship, MRS Graduate Student Gold Award, and the Barry M. Goldwater Scholarship. ■

Faculty Honors and Achievements

- **François Baneyx**, Charles W.H. Matthaei Professor, has been appointed **Department Chair**. A Fellow of the American Association for the Advancement of Science, Baneyx's tenure includes serving as Director of the UW Center for Nanotechnology, Site Director of the Pacific Northwest node of the National Nanotechnology Infrastructure Network and Co-Director of the Genetically Engineered Materials Science and Engineering Center. His research focuses on protein engineering, nanobiotechnology, and molecular biomimetics. He succeeded Dan Schwartz who now leads the Clean Energy Institute.
- **John Berg** celebrated his 50th anniversary with UW ChemE. In September, over 370 guests gathered to honor him and President Michael K. Young named Benson 123 "The John C. Berg Interfacial & Colloid Science Lab."
- **James Carothers** received the inaugural UW Presidential Innovation Award.
- **David Castner** was awarded the 2014 Riviere Prize from the United Kingdom Surface Analysis Forum.
- **Hugh Hillhouse** received highly competitive Department of Energy Sunshot Award and was featured by Office of Research as one of five "Researcher Making an Impact for a World of Good."
- **Samson Jenekhe** was the recipient of the AIChE Charles M.A. Stine Award in Materials Science and presented a keynote talk in the MESD Plenary Session at the 2014 annual meeting.
- **Shaoyi Jiang** was featured in the Chemical & Engineering News (C&EN) in an article titled, "Simple Molecules Block Bacterial Biofilms."
- **Jim Pfaendtner** was named 2014 Junior Faculty Innovator by the College of Engineering and was featured in Provost's "Leading Change in Public Higher Education" Report and in ASEE's "20 under 40" for mentoring students to achieve career goals.
- **Lilo Pozzo** and her team won a \$2.8M NIH award to develop a technology that breaks blood clots non-invasively using light.
- **Buddy Ratner** was recognized by the School of Medicine with its second ever Lifetime Inventor and Innovation Award for his many contributions to biomaterials.
- **Qiuming Yu** won a grant from the UW Center for Commercialization to develop flexible solar fabrics.



Pozzo's team is tackling blood clot disruption

Andy Kim

Andy Kim may be new to the position but he certainly isn't new to UW ChemE: he earned his B.S. in Chemical Engineering in 1991 and Ph.D. in 2002 under the guidance of Prof. John Berg. As a Lecturer, Dr. Kim will teach both laboratory and lecture courses, maintain the modules in Surface and Colloid Science Laboratory course, and develop lab modules for a new course in Polymer Science. He will also be responsible for maintaining the departmental shared research instrumentation facility.

Dr. Kim brings a diverse background in industrial research and development, spanning semiconductor, solar, specialty chemicals, and equipment. Before joining UW ChemE, Kim was R&D Manager at Mega Fluid Systems in Tualatin, Oregon, where he was responsible for technology development in automated mixing, characterization, filtration, and dispense tools for high purity chemicals and slurries. His past appointments include Director of Research and Applied Technology at Evonik Silco Materials, Senior Ink Formulation Chemist at Innovalight, and Materials Engineer at Intel Corporation. The Department had been discussing the hiring of a full-time lecturer for several years. It finally came to fruition this past Autumn, thanks largely to Prof. John Berg who endowed the lectureship. ■



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RETURN SERVICE REQUESTED

Catalyst

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Catalyst

Alumnus Dan Evans Supports ChemE with Scholarships



Alumnus **Dan Evans** (BS '64) established the Dan Evans Term Scholarship Fund in Prof. John Berg's honor. Evans celebrated the Awards Day with us and congratulated Nick Sage, one of the Evans Scholars.

2014 Distinguished Alumnus in Academia, Rich Dickinson



2014 Distinguished Alumnus in Academia, **Rich Dickinson**, Chair and Professor of Chemical Engineering at the University of Florida with Department Chair François Baneyx. Dickinson also joined our External Advisory Board in 2014.