

## Keynote and Plenary Speakers

### Tuesday, February 28, 2017

**Sangtae Kim**, Distinguished Professor and Head, Purdue University  
8:15-9:30am – *Sponsored by: Biomedical, Pharmaceutical & Nano-Engineering*

**David G. Barton**, Principal Research Scientist, Dow Chemical Company  
12:45-1:45pm – *Sponsored by: Catalysis & Reaction Engineering*

**Lisa Long**, Director of the Office of Engineering Safety, OSHA  
12:45-1:45pm – *Sponsored by: Process Safety and Occupational Health*

**Jacob Oberholtzer**, Director of Specialties Process Technology, SABIC  
12:45-1:45pm – *Sponsored by: Fluid Properties, Fluid Dynamics & Transport Phenomena and Process Engineering, Modeling, Optimization & Control*

**Pete Ludovice**, Comedian and Associate Professor, Georgia Tech  
6:30-7:30pm – *Sponsored by: Young Professionals Committee (YPC), Chicago Section*

### Wednesday, March 1, 2017

**Anne Evens**, Chief Executive Officer, Elevate Energy  
8:15-9:30am – *Sponsored by: Energy and Sustainability*

**James Rawlings**, Professor, University of Wisconsin  
12:45-1:45pm – *Sponsored by: Process Engineering, Modeling, Optimization & Control*

**Mary Ellen Ternes**, Environmental Attorney, Crowe & Dunlevy  
12:45-1:45pm – *Sponsored by: Environmental Compliance & Remediation*

**TBA**  
12:45-1:45pm – *Sponsored by: Biomedical, Pharmaceutical & Nano-Engineering*

**Jim Rekoske**, Chief Technology Officer, UOP/Honeywell  
6:30-7:30pm – *Sponsored by: Refining & Petrochemical Processing*

## Speaker Biographies

### Tuesday Morning Keynote: 8:15 AM February 28, 2017

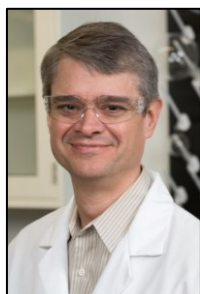


**Sangtae Kim**, Distinguished Professor, Purdue University  
*Sponsor: Biomedical, Pharmaceutical and Nano-Engineering*

**Biographical Sketch:** Sangtae “Sang” Kim is the Jay and Cynthia Ihlenfeld Head of the School of Chemical Engineering at Purdue University. Dr. Kim’s record of leadership in the public and private sectors includes Division Director, NSF Division of Shared Cyberinfrastructure and Vice President for R&D IT at pharmaceutical companies Eli Lilly and Warner Lambert. His faculty career started at the University of Wisconsin where he made pioneering discoveries in micro-hydrodynamics and coauthored the 1991 book on this same topic.

Dr. Kim is a member of the National Academy of Engineering, a Fellow of the AIChE and AIMBE, a Trustee of the AIChE Foundation and past member of the Science Board of the Food and Drug Administration. His research recognitions include the 2013 Ho-Am Prize in Engineering, AIChE’s Allan P. Colburn Award (1993), and the Award for Initiatives in Research from the National Academy of Sciences (1992). Dr. Kim received concurrent BSc and MSc degrees (1979) from Caltech and his PhD (1983) from Princeton.

### Tuesday Afternoon Plenary Session I: 12:45 PM February 28, 2017



**David Barton**, Principal Research Scientist, Dow Chemical Company  
*Sponsor: Catalysis and Reaction Engineering*

**Biographical Sketch:** David Barton is a Principal Research Scientist in the Inorganic Materials & Heterogeneous Catalysis Capability of Core R&D. In this role, David is responsible for technical project leadership, developing and shaping new projects, and subject matter expert for commercial catalysts/processes. He joined Dow in 1998 in the Heterogeneous Catalysis organization. His work has focused on discovery of novel heterogeneous catalysts for the utilization of alternative feedstocks and environmentally benign processes including propylene epoxidation, methane activation, higher alcohol synthesis, propane dehydrogenation, phenol dehydration, and carbonylation reactions. He is the recognized technical expert in the fundamentals of catalyst synthesis, in-situ characterization, mechanistic studies, reactor design for catalyst evaluation and scale-up.

Dr Barton is active in numerous research collaborations: UC-Berkeley, University of Minnesota, Northwestern University, Georgia Tech, National Renewable Energy Laboratory, Argonne National Laboratory, Clariant; and Evonik. He has given invited lectures at universities (Univ of Wisc, Ohio State, Univ of Kansas, and Stevens Inst), the Gordon Research Conference for Catalysis

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(2012, 2016), and national/international conferences (Heraeus Lecture, ACS, AIChE and NACS). He holds a BS in chemical engineering (Summa Cum Laude) is from the University of Minnesota and a PhD from the University of California Berkeley (advisor: Enrique Iglesia). He is the author of 18 US patents, 18 journal publications (>1800 citations), and >90 internal reports.

**Tuesday Afternoon Plenary Session II: 12:45 PM February 28, 2017**



**Lisa Long**, Director, Office of Engineering Safety, OSHA

**Sponsor:** Process Safety and Occupational Health

**Biographical Sketch:** Coming soon!

**Tuesday Afternoon Plenary Session III: 12:45 PM February 28, 2017**



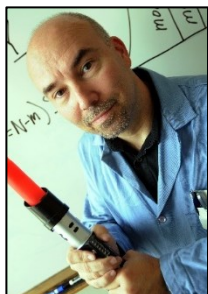
**Jacob Oberholtzer**, Director of Specialties Process Technology, SABIC

**Sponsors:** Fluid Properties, Fluid Dynamics & Transport Phenomena and Process Engineering, Modeling, Optimization & Control

**Biographical Sketch:** Jake Oberholtzer is the Director of Specialties Process Technology for SABIC, a global leader in diversified chemicals that manufactures: chemicals, commodity and high performance plastics, agri-nutrients and metals. Jake leads a global organization that develops and implements new process technologies that deliver unique chemical and resin solutions to a wide variety of markets. This team executes technology development projects in Spain, Netherlands, Saudi Arabia, India, and the US.

Jake received his bachelor's degree from Purdue University in 1995, and holds multiple patents. He has a 20+ year career with General Electric Plastics and SABIC, developing multiple technologies for polycarbonate and polyetherimide processes, and guiding them through to commercial implementation. He lives in Evansville, Indiana with his wife Stephanie, son and daughter.

**Tuesday Evening Keynote: 6:30 PM February 28, 2017 (during Mardi Gras Networking Mixer)**



**Pete Ludovice**, Comedian and Associate Professor, Georgia Tech

**Sponsor:** Young Professionals Committee (YPC), Chicago Section

**Biographical Sketch:** After a Ph.D. from M.I.T. and postdoctoral studies at IBM, NASA and ETH-Zürich, Professor Ludovice joined the School Chemical & Biomolecular Engineering at the Georgia Institute of Technology. His research focuses on computer simulation of synthetic biological macromolecules and block copolymers.

In the world of standup comedy, he is known as Dr. Pete and performs at colleges, clubs, theaters and conferences across the U.S. He is currently touring with his one-man show "Feel the Power of the Dork Side," a humorous look at science & engineering and their practitioners. It is the funniest STEM outreach program you will ever see. He also lectures on the value of humorous improvisation to catalyze technical innovation. He is currently funded by the National Science Foundation to explore the use of humor to improve engineering education. Dr. Pete also hosts a weekly radio program entitled "Inside the Black Box," whose motto is "Science, only funnier," and "Consilience with Pete & Charlie," a podcast on the intersection of science and the humanities. He also directs a Living/Learning Community at Georgia Tech on student innovation and entrepreneurship.

**Wednesday Morning Keynote: 8:15 AM March 1, 2017**



**Anne Evens**, Chief Executive Officer, Elevate Energy

**Sponsor:** Energy and Sustainability

**Biographical Sketch:** Anne Evens is the Chief Executive Officer of Elevate Energy. In this role she manages a growing staff of over 100 while providing oversight for programs related to energy efficiency retrofits in affordable housing buildings, energy performance of commercial and residential buildings, regional energy and climate planning, as well as smart grid and dynamic electricity pricing initiatives.

An engineer and public health scientist by training, she easily navigates the intersection of energy efficiency and healthy environments to develop programs that provide comfortable, affordable, and safe living spaces. She was the architect of Energy Impact Illinois and Energy Savers, led the implementation of dynamic electricity pricing for ComEd and Ameren, and has been a leader of regional green and healthy homes initiatives for 18 years. Anne sits on Executive Committee of the Board of the National Center for Healthy Housing and she's an alumni of Goldman Sachs 10,000 Small Businesses program. In addition, she acted as lead researcher on the Chicago Climate Action Plan and the Regional Energy Plan for the Chicago Metro Agency for Planning (CMAP).

Anne has a PhD in Environmental and Occupational Health Sciences from the University of Illinois at Chicago, a MS in Energy Management and Appropriate Technology from the University of Pennsylvania and a BS in Applied Engineering and Physics from Cornell University.

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**Wednesday Afternoon Plenary Session I: 12:45 PM March 1, 2017**



**James Rawlings, Professor, University of Wisconsin**

**Sponsor: Process Engineering, Modeling, Optimization & Control**

**Biographical Sketch:** James Rawlings received the BS from the University of Texas and the PhD from the University of Wisconsin, both in Chemical Engineering. He spent one year at the University of Stuttgart as a NATO postdoctoral fellow and then joined the faculty at the University of Texas. He moved to the University of Wisconsin in 1995 and is currently the Steenbock Professor of Engineering and W. Harmon Ray Professor of Chemical and Biological Engineering and the co-director of the Texas-Wisconsin-California Control Consortium (TWCCC). Professor Rawlings's research interests are in the areas of chemical process modeling, monitoring and control, nonlinear model predictive control, moving horizon state estimation, and molecular-scale chemical reaction engineering. He has written numerous research articles and coauthored three textbooks: "Modeling and Analysis Principles for Chemical and Biological Engineers" (2013) with Mike Graham, "Model Predictive Control: Theory and Design" (2009), with David Mayne, and "Chemical Reactor Analysis and Design Fundamentals," 2nd ed. (2012), with John Ekerdt.

In recognition of his research and teaching, Professor Rawlings has received several awards including: "Doctor technices honoris causa" from the Danish Technical University; The inaugural High Impact Paper Award from the International Federation of Automatic Control; The Ragazzini Education Award from the American Automatic Control Council; The Computing in Chemical Engineering Award and Excellence in Process Development Award from the AIChE; The Chancellor's Distinguished Teaching Award and the Byron Bird Award for Excellence in a Research Publication, from the University of Wisconsin; He is a fellow of IFAC, IEEE, and AIChE. In 2016 Professor Rawlings was elected to the National Academy of Engineering.

**Wednesday Afternoon Plenary Session II: 12:45 PM March 1, 2017**



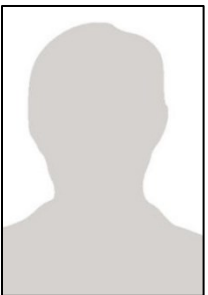
**Mary Ellen Ternes, Environmental Attorney, Crowe & Dunlevy**

**Sponsor: Environmental Compliance and Remediation**

**Biographical Sketch:** With more than 30 years of experience regarding environmental projects throughout the United States, Mary Ellen Ternes began her career as a chemical engineer with U.S. EPA. With her unique background, Ternes specializes in Clean Air Act and hazardous waste management and remediation issues. She also assists with solid and hazardous waste determinations, permitting, regulatory interpretation and enforcement matters. In addition, Ternes has developed a significant practice in drinking water and wastewater treatment, assisting clients with water quality permitting and discharge regulation, such as wetlands and stormwater issues, as well as Safe Drinking Water Act permitting and compliance.

She is listed in Chambers USA Guide to America's Leading Lawyers for Business; Best Lawyers, where she was also named Oklahoma City Environmental Lawyer of the Year in 2011 and 2016; Oklahoma Super Lawyers, where she was selected for inclusion in Top 25: Women Oklahoma Super Lawyers in 2009-12, 2013 and 2015; International Who's Who of Environment Lawyers; Martindale Hubbell AV; and is an American College of Environmental Lawyers (ACOE) Regent and Fellow. Her specialized knowledge of air quality and hazardous waste issues has allowed Ternes to significantly contribute to both civic and professional organizations through various leadership positions including the SEER and Business Law Section, ACOE, and the AIChE. Ternes received her Juris Doctor with high honors from the University of Arkansas at Little Rock and her Bachelor of Engineering in chemical engineering from Vanderbilt University.

**Wednesday Afternoon Plenary Session III: 12:45 PM March 1, 2017**



TBA

**Sponsor: Biomedical, Pharmaceutical and Nano-Engineering**

**Biographical Sketch:** Coming soon!

**Wednesday Dinner Keynote: 6:30 PM March 1, 2017**



**Jim Rekoske, Chief Technology Officer, UOP/Honeywell**

**Sponsor: Refining and Petrochemical Processing**

**Biographical Sketch:** Jim Rekoske is Vice President and Chief Technology Officer at UOP Honeywell. In this role, he is responsible for the entire technology organization, ranging from basic and applied research on new materials, catalysts, membranes and adsorbents through to process development, scale-up and commercialization. Previously, Jim served as Technical Director for Petrochemical Catalysts, Director of Technology for Universal Pharma Technologies and Vice President & General Manager of UOP's Renewable Energy & Chemicals business unit. Immediately prior, he was the Global Business Director for UOP's petrochemical business segment.

Jim was awarded the 2010 Herman Pines Award from the Chicago Catalysis Club. He is a member of the advisory boards for the C3Bio Center of Excellence at Purdue University, the School of Chemical Engineering at Purdue University, and the College of Engineering at the University of Wisconsin-Madison. Jim earned his BS and MS degrees in chemical engineering at the University of Wisconsin and his PhD in chemical engineering from the University of Delaware. He also earned an MBA from the Booth School of Business at the University of Chicago.