

## **Andreas Bommarius**

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Andreas S. (Andy) Bommarius is a Professor of Chemical and Biomolecular Engineering as well as of Chemistry and Biochemistry and the Georgia Institute of Technology in Atlanta, GA. He received his diploma in Chemistry in 1984 at the Technical University of Munich, Germany and his Chemical Engineering B.S. and Ph.D. degrees in 1982 and 1989 at MIT, Cambridge, MA.

In industry at Evonik (then Degussa) from 1990-2000, he led the Laboratory of Enzyme Catalysis and worked on projects ranging from chiral pool syntheses and membrane reactors to use of enzymes in laundry and pulp and paper applications.

At Georgia Tech since 2000, Dr. Bommarius' research interest cover green chemistry and biomolecular engineering, specifically biocatalyst development, protein stability, integrated reaction-separation schemes, and chemicals from renewables. He became a Fellow of the American Institute of Medical and Biological Engineering in 2008 and heads and NSF-sponsored I/UCRC Centered since 2011.

## **Rafael Bras**

Rafael Bras, Sc.D.  
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Provost and Executive Vice President for Academic Affairs, Dr. Bras oversee all Georgia Tech's Academic and related units, including the colleges, the library, international relationships, professional education, and enrollments. He is also responsible for the adoption of new educational technologies and the Institute's efforts pertaining to on-line education at all levels.

Dr. Bras completed undergraduate and graduate education at MIT, culminating with a Doctor of Science degree. For 32 years, he was a professor at MIT before becoming a Distinguished Professor and a Dean of the Henry Samueli School of Engineering at UC-Irvine.

He is an elected member of the U.S. National Academy of Engineering and a Fellow of AGU, the American Society of Civil Engineers, the American Meteorological Society, and the American Association of the Advancement of Science. He is a member of the Secretary of Energy Advisory Board. Recently the Museum of Science and Industry (MOSI) named Bras the 2014 National Hispanic Scientist of the Year.

## **David Constable**

David Constable, Ph.D.  
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David J.D. Constable is the Director of the American Chemical Society's Green Chemistry Institute<sup>®</sup> where he works to catalyze and enable the implementation of green chemistry and engineering in the global chemical enterprise. From September 2011 to January 2013, David worked as the owner and principal at Sustainability Foresights, LLC. David Left Lockheed Martin as the Corporate Vice President of Energy, Environment, Safety & Health (ESH) at the end the end of September 2011. Prior to joining Lockheed Martin, David served as Director of Operational Sustainability in the Corporate Environment, Health, and Safety Department at GalaxoSmithKline where he had held positions of increasing breadth and responsibility since 1991.

### **Ronald Chance**

Ronald R. Chance, Ph.D.  
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After graduation from Dartmouth with a Ph.D. in physical chemistry, Dr. Chance began his career with Honeywell Corporation, where he served in a number of research positions including Research Manager of Electronic Materials. In 1986, he joined Exxon as the Director of their Polymers Laboratory, later serving as Distinguished Scientific Advisor in ExxonMobil's Corporate Strategic Research Laboratories. Dr. Chance retired from ExxonMobil in 2006 and joined Georgia Tech as Professor of the Practice. In 2009, he was named Executive Vice President and Head of Engineering for Algenol. Dr. Chance's primary research interest is CO<sub>2</sub> capture and utilization. He has published over 170 peer-reviewed papers, is an inventor on over 30 US patents, and is a Fellow in the American Physical Society.

### **Keshav Gautam**

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Dr. Seshav Gautam is currently a senior scientist and group leader for new product development with Solvay Specialty Polymers. His responsibilities include managing product development and material innovation activities in new and emerging markets. Gautam joined Solvay from Georgia-Pacific where he led development and patented new products for energy efficiency, antimicrobial/antifungal products, and value-added products for the construction markets. He has also contributed to SBIC's optical film manufacturing, product development and new product commercialization programs.

Dr. Gautam holds a Ph.D. in polymer physics from the University of Akron, and earned his BE in polymer science and technology from the University of Mysore (India). He also earned a Six-Sigma Black Belt while with SABIC.

## **The Honorable Johnny Isakson**

The Honorable Johnny Isakson  
United States Senator  
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U.S. Senator Johnny Isakson is a businessman who has built a respected record of public service to the State of Georgia.

As a business leader, Isakson served as president of Northside Realty for 20 years, as it grew to become the largest independent residential real estate brokerage company in the Southeast and one of the largest in America. As a public servant, Isakson served in the Georgia Legislature and two years as chairman of the Georgia Board of Education. He then served three terms in the U.S. House and is now serving his second term in the U.S. Senate.

Johnny Isakson brings common-sense leadership to Congress through bipartisan efforts to address federal spending, reduce the debt, create jobs, and reform burdensome regulations. He is a member of the Senate Committees of Finance; Health, Education, Labor and Pensions; Veterans' Affairs; and Ethics.

## **Tom Kindler**

Tom Kindler, M.S., M.B.A.  
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Tom serves as the Operations Leader for the Renmatix Integrated Plantrose Complex in Kennesaw, Georgia. The Kennesaw facility is a fully functional demonstration-scale plant where the cellulose from woody biomass is converted into monomer sugar. Previous to his engagement with Renmatix, Tom worked 20 years in a variety of operations roles for Mead-Westvaco, Stora Enso and New Page in the coated paper industry. After receiving a BS from Texas A&M, he earned his MS degree from the Institute of Paper Science and Technology (now the Renewable Bioproducts Institute) making the transition from Laurence University in Appleton, Wisconsin to Georgia Tech in Atlanta. He also has an MBA from Lake Superior State University.

## **Norman Marsolan**

Norman Marsolan, Ph.D.  
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Norman Marsolan is the Executive Director of Renewable Bioproducts Institute and a Professor of Chemical and Biomolecular Engineering at Georgia Tech. As executive director, Dr. Marsolan is responsible for engaging the research capacity of Georgia Tech in the service of member companies and

industry. After twenty years of service, Dr. Marsolan retired from the International Paper Company in 2008, where he last served as director of research & development. Norman held assignments as mill manager and as director of technology manufacturing solutions and was responsible for the world wide support of pulp and paper manufacturing. Dr. Marsolan is a past chair of the Technical Association of the Pulp and Paper Industry (TAPPI). He is an affiliate member of the forest products industry's Agenda 2020 Technology Alliance and a TAPPI Fellow.

### **Kenneth Mathews**

Kenneth Mathews  
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Ken Mathews is a Community Practice Leader, Renewable Raw Materials – Research, Development & Innovation at AkzoNobel Chemicals. He is a professional paper chemist who started working in a mill in the early eighties. He joined Eka Chemicals in 1994 in technical sales and, after five years in the South of England, moved to Soul, South Korea, as the Technical Manager for a newly established Eka Chemicals business. He returned to the UK to head up the sales efforts and support the integration into a European-focused business. In 2007, he joined the North American technical marketing group before taking the role as Business Development Manager, responsible for new technology opportunities as well as technology scouting. Through his involvement with the nascent Bio-Refinery movement, he took on a corporate R&D role for the parent company, AkzoNobel, heading up the Community of Practice for Renewable Raw Materials. He rejoined Eka Chemicals (now AkzoNobel Pulp and Performance Chemicals) in 2013 to lead the marketing team in North America.

### **David McDowell**

David McDowell, Ph.D.  
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Dave McDowell joined Georgia Tech in 1983 and is the founding director of the Institute for Materials. He is Regents' Professor and Crater N. Paden, Jr. Distinguished Chair in Metals Processing. Holding joint appointments in the School of Mechanical Engineering and Materials Science and Engineering, Dr. McDowell's research focuses on the synthesis of experiment and computation to develop physically-based, microstructure-sensitive constitutive models for nonlinear and time-dependent behavior of materials, with emphasis on wrought and cast metals. A Fellow of SES, ASM International, ASME and AAM, McDowell is the recipient of the 1997 ASME materials Division Nadai Award for career achievement and the 2008 Khan International Medal for lifelong contributions to the field of metal plasticity. He serves on several editorial boards and co-Editor of the International Journal of Fatigue.

### **Carson Meredith**

Carson Meredith, Ph.D.

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Carson Meredith, professor and associate chair for graduate studies, received his B.S. in Chemical Engineering from Georgia Tech in 1993 and his Ph.D. in Chemical Engineering from University of Texas, Austin, in 1998.

From 1998 to 2000 he was a postdoctoral associate in the NIST Polymers Division. Since 2000 he has been a faculty member in the School of Chemical & Biomolecular Engineering at Georgia Tech, where he is now Professor and Associate Chair for Graduate Studies.

His research focuses on advanced materials characterizations, with an emphasis on structures, transport properties, and adhesion in sustainable particle-and fiber-based materials. Projects include development of high-throughput screening methods for absorbents and polymers, light-weight high-strength composites, and development of bio-inspired adhesives. His work has been featured on the covers of *Macromolecules*, *Macromolecular Chemistry and Physics*, the *Materials Research Bulletin*, and *Macromolecular Materials & Engineering*.

### **Mark Pender**

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Mark Pender is currently the Manager for Concept Materials Research at Michelin Americas Research Company in Greenville, South Carolina. Mark's eight-year career has included the design of rubber formulations for both passenger car and heavy truck tires, and as well as responsibility for Michelin North America's technical interface with raw material suppliers. In his current role, Pender's team is developing the materials solutions that break traditional compromises in tire performance within the next 10 years. Prior to joining Michelin he worked for the Air Force Research Laboratory and his graduate studies were performed at the University of Pennsylvania.

### **Matthew Realff**

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Dr. Matthew J. Realff is a Professor of Chemical and Biomolecular Engineering at Georgia Tech and a David Wang Senior Faculty Fellow. He has been at Georgia Tech since 1993, after completing his Bachelor's degree at Imperial College in London and a Ph.D. in chemical engineering at MIT in 1992. He was a National Science Foundation (NSF) program director from 2005-2007 and currently serves as an

NSF external expert in resilient infrastructure systems. He was the co-chair of the 2013 American Chemistry Society Green Chemistry Conference. In December 2013 he was appointed Associate Director of the Georgia Tech Strategic Energy Institute and in 2014 as an Associate Director of the Renewable Bioproducts Institute to help develop programs in chemicals and fuels.

### **Theodora Retsina**

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Chief Executive Officer  
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Dr. Theodora Retsina is the CEO of American Process. She received a B.S.C. and PhD. In chemical engineering from Imperial College, at the University of London, and is a licensed professional engineering in the United States. Her career began at Parsons & Whittemore, where she held positions such as project engineer, project manager and process manager in various international construction projects. In 1995, she founded American Process – a company that focuses on value enhancement of biomass industries through process integration, biorefinery technology applications and value engineering. American Process has a unique blend of experience which enables the company to develop technically and financially viable biorefiners. American Process has built one of the first commercial cellulosic biorefiners in Michigan, the Aplena Biorefinery, which is currently producing and selling commercial quantities of cellulosic ethanol. Dr. Retsina is the author of over 106 patents and patent-pending applications in the biorefinery field.

### **Meisha Shofner**

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Dr. Meisha L. Shofner is an Associate Professor in the School of Materials Science and Engineering at the Georgia Institute of Technology, joining the faculty following postdoctoral training at Rensselaer Polytechnic Institute. She received a B.S. in Mechanical Engineering from the University of Texas at Austin and a Ph.D. in Materials Science from Rice University. At Georgia Tech, Dr. Shofner's research concerns structure-property relationships in polymer nanocomposites and producing structural hierarchy in these materials. This research has been recognized by the Ralph E. Powe Junior Faculty Enhancement Award from Oak Ridge Associate Universities and Solvay Advanced Polymers Young Faculty Award.

### **Yu Shi**

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Dr. YuShi is the Director of the Next Generation Materials & Sustainability Research of the Coca-Cola Company in Atlanta, GA. She has been a leader in the development of the PlantBottle™ and new materials. Dr. Shi was previously the Worldwide Director of Global Technology with Colgate-Palmolive. Her responsibilities have included leading packaging innovation and sustainability, emerging market packaging innovation, and providing excellence in science packaging, materials, and processing. She was also responsible for identifying and building technology platform to deliver the business opportunities in packaging and delivery systems. Dr. Shi is a graduate of the University of Toledo in Chemical Engineering.

### **Carsten Sievers**

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Carsten Sievers is an assistant professor of Chemical and Biomolecular Engineering and adjunct professor of Chemistry and Biochemistry at the Georgia Institute of Technology. He received his diploma and Sc.D. degrees in Technical Chemistry from the Technical University of Munich, Germany in 2003 and 2006.

Dr. Sievers joined the faculty at the Georgia Institute of Technology in 2009. His research group provides insight into surface interaction involving biomass-derived oxygenates and develops catalytic processes for the sustainable production of fuels and chemicals. Specific foci are on the stability and reactivity of solid catalysts in aqueous phase, applied spectroscopy, surface reactions of oxygenates in water, physicochemical characterizations of solid materials, synthesis of well-defined catalysts, methane conversion, depolymerization of biomass, pyrolysis and gasification.

Dr. Sievers is President of the Southeastern Catalysis Society and former Program Chair of the ACS Division of Catalysis Science & Technology.

### **Naresh Thadhani**

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Dr. Naresh Thadhani is chair of the School of Materials Science and Engineering, since 2012. He joined the Georgia Tech career in 1992.

Dr. Thadhani's research focuses on studies of shock-induced physical, chemical, and mechanical changes for processing of novel materials and for probing the deformation and fracture response of metals, ceramics, polymers, and composites, subjected to high-rate impact loading conditions.

Dr. Thadhani earned his Ph.D. in Physical Metallurgy from the New Mexico Institute of Mining and Technology, MS in Metallurgical Engineering from the South Dakota School of Mines and Technology and BE in Metallurgical Engineering from the University of Rajasthan, India.

### **Eric Vogel**

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Eric M. Vogel is currently professor of Materials Science and Engineering and adjunct professor of Electrical and Computer Engineering at the Georgia Institute of Technology. Prior to joining Georgia Tech in August 2001, he was associate professor of Materials Science and Engineering and Electrical Engineering at the University of Texas at Dallas (UTF). Prior to joining UTD in August of 2006, he was the leader of the CMOS and Novel Devices Group and founded the Nanofab at the National Institute of Standards and Technology. He received the Ph.D. degree in 1998 in electrical engineering from North Carolina State University and a B.S. degree in 1994 in electrical engineering from Penn State University. Dr. Vogel's research interests relate to devices and materials for future electronics including advanced MOS devices, MOS devices, and nanoelectronic devices.