

Speaker Biographies

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Keynote Speakers



David Danielson

Assistant Secretary for Energy Efficiency and Renewable Energy U.S. Department of Energy



Dr. David Danielson leads the Office of Energy Efficiency and Renewable Energy within the U.S. Department of Energy (DOE). As Assistant Secretary, he oversees a broad energy portfolio that is intended to hasten the transition to a clean energy economy.

Previously, he was the first Program Director hired by DOE's Advanced Research Projects Agency-Energy (ARPA-E). At ARPA-E, he developed and led research and development programs with a budget of more than \$100 million that focused on high-risk, high-reward, disruptive clean energy technologies.

Prior to joining ARPA-E, he was a clean energy venture capitalist at General Catalyst Partners, a Boston-based venture capital fund. He co-

founded the firm's clean energy investment practice and helped build and grow startups in various clean energy technology areas, including solar power, wind power, advanced biofuels, bio-gas, carbon capture and storage, and advanced lighting.

He was a co-founder of the New England Clean Energy Council. He has authored more than 20 scientific articles in the field of advanced materials. While at the Massachusetts Institute of Technology (MIT), he was the founder and President of the MIT Energy Club and a founding director of the MIT Energy Conference. For his work in building a strong multidisciplinary energy community at MIT, he was awarded the Karl Taylor Compton Prize, MIT's highest student award. He holds a Bachelor of Science, summa cum laude, in materials science and engineering from the University of California, Berkeley, and a doctorate in materials science and engineering from MIT.



Peter W. Davidson Executive Director of the Loan Programs Office U.S. Department of Energy



Peter W. Davidson was appointed by President Obama to serve as the Executive Director of the Loan Programs Office (LPO) at the U.S. Department of Energy. Mr. Davidson oversees the program's more than \$30 billion portfolio of clean energy and advanced vehicle loans and loan guarantees, making it the largest project finance organization in the U.S. government. Mr. Davidson is responsible for ensuring that the LPO carries out its mission to accelerate the deployment of innovative clean energy projects and domestic advanced vehicle manufacturing. By providing debt capital to a broad range of renewable energy, advanced fossil energy, and nuclear energy projects, as well as advanced vehicle manufacturing facilities, the LPO is supporting economic development across the United States,

promoting an "all-of-the-above" energy strategy, and reducing greenhouse gas emissions.

Prior to leading the LPO, Mr. Davidson was Senior Advisor for Energy and Economic Development at the Port Authority of New York and New Jersey and was the Executive Director of New York State's economic development agency, the Empire State Development Corporation. Prior to his government service, Mr. Davidson was an entrepreneur who founded and managed six companies in Spanish language and other niche markets, broadcasting, publishing, marketing, and digital preferred services. Early in his career, he was an executive in the investment banking division of Morgan Stanley & Co.

Since 2001, Mr. Davidson has also been Chairman of the JM Kaplan Fund, a New York City-based philanthropic organization. Under his leadership, grant making has focused on reducing New York City's carbon footprint; supporting immigrant integration in the United States, and archeological conservation worldwide.

Mr. Davidson has a Bachelor of Arts from Stanford University and a Master of Business Administration from Harvard Business School.



Christopher Grundler

Director of the Office of Transportation and Air Quality U.S. Environmental Protection Agency



Christopher Grundler is the Director of the Office of Transportation and Air Quality (OTAQ) for the U.S. Environmental Protection Agency (EPA). Prior to being appointed Director, he served as the Deputy Office Director and Chief Executive of the National Vehicle and Fuel Emissions Laboratory located in Ann Arbor, Michigan. He and a staff of nearly 400 employees strive to protect public health and the environment by reducing air pollution from transportation vehicles, engines, and the fuels used to operate them.

Grundler and his team establish and implement national emissions standards for transportation fuels and vehicles, as well as a variety of off road equipment. These mobile sources include cars and light trucks, heavy trucks and buses, nonroad engines, marine vessels, and airplanes. OTAQ is also responsible for implementing important aspects of the Energy

Independence and Security Act, including establishing national renewable fuel standards. OTAQ is continuously evaluating a wide variety of advanced technology strategies that have the potential to reduce harmful emissions and fuel consumption.

Since joining EPA in 1980, Mr. Grundler has held a number of senior leadership positions within the Agency, including Director of the Office of Federal Facilities Enforcement and Director of the Great Lakes National Program Office. Mr. Grundler has also served at the U.S. Department of Energy, where he helped create the Department's first environmental audit program. Mr. Grundler has been awarded the Gold Medal for Exceptional Service, EPA's highest honor. In 2008 he received the Presidential Award for Meritorious Senior Executives.

Mr. Grundler was part of the team that developed the nation's first greenhouse gas emission standards for both light- and heavy-duty vehicles. Prior to that, he helped bring a slate of clean diesel standards for cars, trucks, and construction equipment. In addition, he administered a five-year modernization program for EPA's National Vehicle and Fuel Emissions Laboratory, the nation's premier facility for testing and evaluating clean automotive technology.

Mr. Grundler holds a Bachelor of Science in civil and environmental engineering from the University of Michigan, for which he is an avid sports enthusiast.



Amy Klobuchar Senator (D-MN) U.S. Senate



Amy Klobuchar is the first woman elected to represent the State of Minnesota in the United States Senate.

As Ranking Senate Member of the Joint Economic Committee and a member of the President's Export Council and the Senate Commerce Committee, Amy has been a leader in working to implement a competitive agenda to ensure businesses have the tools they need to grow and create good jobs in their communities. She has authored legislation to help small businesses tap into new markets abroad, passed a significant amendment aimed at boosting funds for STEM education for American students, and led successful national initiatives to boost American tourism, including a series of regulatory reforms adopted by the Administration.

As a member of the Senate Commerce and Agriculture

Committees, Amy worked on the bipartisan bill to ensure that the Energy Independence and Security Act of 2007 included provisions requiring a significant increase in biofuel production by the year 2022. This law also included new provisions to promote the installation of blender pumps at gas stations across the country. As a member of the Farm Bill conference committee she worked to ensure the 2014 Farm Bill included a strong energy title to allow our farmers to continue to develop homegrown energy for our nation. She supports a strong Renewable Fuel Standard (RFS) and supports Minnesota's rural communities and economies. In 2014, she led a bipartisan group of 16 senators to meet with U.S. Environmental Protection Agency Administrator Gina McCarthy to urge the agency to maintain a strong RFS.

Amy successfully included legislation in the 2008 Farm Bill to provide incentives for U.S. farmers to produce cellulosic ethanol made from dedicated energy crops like prairie grass and alfalfa and from agricultural residues and wood chips. She also introduced the Farm-to-Fuel Investment Act, which was included in the energy title of the 2008 Farm Bill, and the Securing America's Future with Energy and Sustainable Technologies (SAFEST) Act.

The American Prospect named her a "woman to watch," and Working Mother Magazine named her as "Best in Congress" for her efforts on behalf of working families. She received an award from the Service Women's Action Network (SWAN) for her work to fight sexual assault in the military, and the Disabled American Veterans honored her work to improve the lives of America's veterans. She graduated magna cum laude from Yale University and the University of Chicago Law School.



Jonathan Male Director, Bioenergy Technologies Office U.S. Department of Energy



Dr. Jonathan Male is the Director for the Bioenergy Technologies Office (BETO) in the Office of Energy Efficiency and Renewable Energy. In this role, he leads BETO's work to lower costs, reduce technical risk, and accelerate deployment of bioenergy and renewable chemicals technologies. He oversees research and development across the entire supply chain from sustainable biomass growth and collection to biomass conversion technologies that include biochemical, catalytic, and thermochemical pathways to produce economically viable biofuels and bioproducts. BETO's portfolio of demonstration activities involving public-private partnerships helps BETO staff to evaluate risks and enable industrial entities to move technologies to commercial scale in the emerging bioenergy industry.

Before joining the U.S. Department of Energy, he was the laboratory relationship manager for biomass at Pacific Northwest National Laboratory. There he was responsible for business development and enabling high-quality and timely projects aligned to BETO's needs. Previously, he worked at the GE Global Research Center in Niskayuna, New York, and developed programs in heterogeneous and homogeneous catalysts. In total, he has more than 17 years of research experience in catalysts, inorganic materials, high throughput experimentation, greenhouse gas emissions reduction technologies, production of chemicals, and biofuels.

He received a Bachelor of Science in applied chemistry from the University of Greenwich, England, and his doctorate in organometallic chemistry at Simon Fraser University in Canada.



Franklin Orr Under Secretary for Science and Energy U.S. Department of Energy



Dr. Franklin (Lynn) M. Orr was sworn in as the Under Secretary for Science and Energy on December 17, 2014.

As the Under Secretary, Dr. Orr is the principal advisor to the Secretary and Deputy Secretary on clean energy technologies and science and energy research initiatives. Dr. Orr is the inaugural Under Secretary for the office, which was created by Secretary of Energy Ernest Moniz to closely integrate the U.S. Department of Energy's (DOE's) basic science, applied research, technology development, and deployment efforts. As Under Secretary, he oversees DOE's offices of Electricity Delivery and Energy Reliability, Energy Efficiency and Renewable Energy, Fossil Energy, Indian Energy Policy and Programs, Nuclear Energy, and Science. In total, these programs steward the majority of DOE's national laboratories (13 of 17).

Prior to joining DOE, Dr. Orr was the Keleen and Carlton Beal Professor Emeritus in the Department of Energy Resources Engineering at Stanford University. He joined Stanford in 1985. He served as the founding director of the Precourt Institute for Energy at Stanford University from 2009 to 2013. He was the founding director of the Stanford Global Climate and Energy Project from 2002 to 2008, and he served as Dean of the School of Earth Sciences at Stanford from 1994 to 2002. He was head of the miscible flooding section at the New Mexico Petroleum Recovery Research Center, New Mexico Institute of Mining and Technology from 1978 to 1985, a research engineer at the Shell Development Company Bellaire Research Center from 1976 to 1978, and assistant to the director, Office of Federal Activities, U.S. Environmental Protection Agency from 1970 to 1972. He holds a doctorate from the University of Minnesota and a Bachelor of Science from Stanford University, both in chemical engineering.

Dr. Orr is also a member of the National Academy of Engineering. He served as a member of the Board of Directors of the Monterey Bay Aquarium Research Institute from 1987 to 2014, and was a member of the Board of Trustees of the David and Lucile Packard Foundation from 1999 to 2008, for which he has also chaired the Science Advisory Panel for the Packard Fellowships in Science and Engineering from 1988 to 2014. He served as a member of the 2008/09 National Research Council Committee on America's Energy Future.



Gregory Rorrer

Program Director, Energy for Sustainability Program National Science Foundation



Gregory L. Rorrer is the Program Director for the Energy for Sustainability Program in the National Science Foundation's Division of Chemical, Bioengineering, Environmental, and Transport Systems.

Rorrer leads efforts to support fundamental research and education in emerging renewable energy technologies, with a focus on advanced biofuels, photovoltaic and photocatalytic solar energy conversion systems, wind energy, and energy storage.



Reuben Sarkar Deputy Assistant Secretary for Transportation U.S. Department of Energy



Reuben Sarkar is the Deputy Assistant Secretary for Transportation. He oversees the Office of Energy Efficiency and Renewable Energy's (EERE's) Sustainable Transportation area, which includes the Vehicle, Fuel Cell, and Bioenergy Technologies offices. He oversees annual investment of more than \$600 million with a focus to reduce our nation's oil dependence, avoid pollution, and create jobs by designing and manufacturing petroleum alternatives and more energy-efficient cars and trucks.

Before joining EERE, he worked at Proterra Inc., a leading manufacturer of electric buses and fast charging stations. Most recently he was responsible for business development and strategy. During his time at Proterra,

Reuben directed electric vehicle market analysis, competitive intelligence, product planning, technology road mapping, intellectual property management, utility rate and grid integration activities, and other strategic initiatives. He also led engineering programs, including overseeing fuel cell bus demonstration programs and the development of Proterra's first generation all-electric bus. This was the first electric bus to pass the rigorous federal bus testing requirements at Altoona, and is deployed in public transit service today in multiple cities. He also spearheaded the definition of Proterra's second generation electric bus platform.

Previously, Reuben spent more than 10 years at General Motors (GM), where his most recent position was as lead design release engineer on the electric drive unit for the Chevy Volt. He was responsible for the engineering execution, from paper concept into production intent builds. He started his career at GM as a fuels and lubricants expert, having held various roles in new transmission and hybrid system development and production launch programs.

Reuben holds both a Bachelor of Science and Master of Science in chemical engineering, as well as a Master of Business Administration with high distinction, all from the University of Michigan in Ann Arbor.



Plenary and Breakout Speakers

(Including Session Moderators)



Robert C. Abt

Professor of Natural Resource Economics and Management North Carolina State University



Dr. Abt is a professor of natural resource economics and management at North Carolina State University (NC State). He teaches forest economics and natural resource management. He has 25 years of experience in bioeconomic modeling of southern forest resources and markets. He developed the Sub-Regional Timber Supply modeling framework initially for the U.S. Department of Agriculture Forest Service in the South's Fourth Forest study, for which he received an award "for innovative research in developing the first usable system for projecting inventory trends at the state level."

His interest in the use of the modeling framework for strategic planning led to

the formation of the Southern Forest Resource Assessment Consortium (SOFAC) at NC State. SOFAC is a consortium of more than 20 forest resource dependent entities, including most of the major wood consumers and corporate landowners in the South. Recently, membership has expanded to include major utilities and environmental organizations. In the last five years, Dr. Abt's work has focused on the potential impact of bio-energy demand on the sustainability of the resource and traditional wood dependent industries.



Toby Ahrens Chief Technology Officer BioProcess Algae



Toby serves as BioProcess Algae's Chief Technology Officer, where he directs product development, process development, and research and development activities. Toby oversees the company's patent portfolio development and is the Principal Investigator for its Integrated Biorefinery award from the U.S. Department of Energy. Toby has previously held various scientific advisory and consulting roles for a range of biotechnology companies and worked as a scientist for GreenFuel Technologies. He holds a doctorate in biogeochemistry and a master's degree in engineering from Stanford University. Toby joined BioProcess Algae in 2010.



James E. Anderson Technical Expert Ford Motor Company



Dr. James Anderson is the Technical Expert in Fuel Science within the Research & Advanced Engineering organization at Ford Motor Company. He leads research on the physical, chemical, and environmental attributes of renewable and conventional fuels, and how these properties relate to engine performance, emissions, and environmental impacts.

His areas of focus include opportunities and issues associated with higheroctane gasoline and higher renewable fuel content, impacts of conventional and alternative fuel production and use, and global energy and CO_2 modeling.

Dr. Anderson is also actively involved in several cross-industry research efforts related to these topics. He has co-authored more than 40 journal

articles and 2 book chapters. He is a member of the Society of Automotive Engineers and the American Chemical Society and is a licensed professional engineer. Dr. Anderson received his doctorate in civil engineering from Stanford University.



Matthew Atwood

President and Chief Executive Officer Algae Systems, LLC



Mr. Atwood is an entrepreneur with expertise in sustainable technologies, project engineering, project finance, organizational management, and information technology systems. Before founding Algae Systems, he launched broad development efforts on large-scale biodiesel production plants and researched many algae and thermochemical biofuel production technologies.

Matt conceptualized and led the development of Algae Systems' technology platform, while bringing together the team to make it a reality. He is a strong business leader and is concerned about how his company operates, not just

what his company produces. He serves as a founder and board member to several diverse organizations from non-profits to energy companies.



David Babson

Senior Fuels Engineer Union of Concerned Scientists



David Babson is a senior engineer for the Clean Vehicles Program at the Union of Concerned Scientists, and he is based in its Washington, D.C. office. His work focuses on understanding and improving fuel production processes—including biofuels—and analyzing associated fuel policy.

Dr. Babson has extensive research and policy experience. He served as an American Association for the Advancement of Science (AAAS) Science and Technology Policy Fellow in the Environmental Protection Agency's (EPA's) Transportation and Climate Division, where he reviewed biofuel technologies and science policy related to key initiatives such as the Renewable Fuel Standard. Before EPA, he worked on designing and assessing biofuel

systems at both the U.S. Naval Research Laboratory and the University of Minnesota's Biotechnology Institute.

Dr. Babson received his bachelor's degree in chemical engineering from the University of Massachusetts-Amherst and his master's degree and doctorate in chemical engineering from Rutgers University.



Brian Baynes Partner Flagship Ventures



Brian joined Flagship Ventures in 2004 and focuses on innovating, leading, and investing in new ventures in life sciences and sustainability.

He is Founder and Chairman of Midori Renewables, which is commercializing a novel technology for the production of renewable sugar and fiber. He is also a co-founder and CEO of Flagship portfolio company Celexion, a company applying synthetic biology to problems in pharmaceuticals and industrial biotechnology. He currently serves on the Board of Directors of Joule and Mascoma.

Previously, Brian co-founded portfolio company Codon Devices and worked closely with Adnexus, BG Medicine, and Epitome Biosystems.

Prior to joining Flagship, Brian was an engineer at ExxonMobil, and a Director in the Massachusetts Institute of Technology (MIT) School of Chemical Engineering Practice at Mitsubishi Chemicals and General Mills. He holds a Bachelor of Chemical Engineering degree from the University of Delaware and a doctorate in chemical engineering from MIT.



Jacques Beaudry-Losique

Senior Vice President, Corporate and Business Development Algenol



Mr. Jacques Beaudry-Losique is the Senior Vice President of Corporate and Business Development for Algenol.

Jacques has more than 20 years of experience working in the energy and technology sectors. Prior to Algenol, Jacques was the Vice President of Corporate Development and Strategy for Codexis, a publicly traded cellulosic biofuels and biopharma company.

From 2005 to 2011, he held senior policy and management positions at the U.S. Department of Energy (DOE). While at the DOE, Jacques led efforts to build a second-generation biofuels industry across two administrations, managed three clean energy programs, and served for two years as Deputy

Assistant Secretary for Renewable Energy. He was also instrumental in decisions to invest more than \$1.5 billion of Recovery Act funds in renewable energy projects, including \$800 million in biofuels projects.

Jacques holds a Bachelor of Science in chemical engineering from the University of Montreal, a Master of Science in engineering management from Stanford University, and a Master of Science in management from the Massachusetts Institute of Technology.



Doug Berven Vice President of Corporate Affairs POET



Doug Berven joined POET in March 2003 and has served the organization in several roles since then. In his current role as Vice President of Corporate Affairs, Berven promotes the corporate objectives of POET, the importance of agriculture, and the benefits of ethanol domestically and internationally.

Berven sits on several of POET's ethanol plant Boards of Directors, BIO's Industrial and Environmental Section of Governing Board, and serves on the Board of ACORE. Berven also manages strategic corporate relations for POET; promotes state, regional and national policy objectives for the industry; and is a recognized authority on ethanol, renewable energy, and agriculture.

Prior to joining POET, Berven held various roles in banking, real estate development, and medical consulting. Berven received his Bachelor of Science in business administration from Augustana College in Sioux Falls, South Dakota, where he currently resides with his wife and two children.



Abhijeet P. Borole Research Scientist Oak Ridge National Laboratory



Abhijeet Borole is a chemical engineer with expertise in biomass conversion, waste to energy, and bioelectrochemical systems. He is currently a research scientist at Oak Ridge National Laboratory and holds a Joint Faculty Professor appointment at the University of Tennessee, Knoxville, in the Chemical and Biomolecular Engineering Department as well as in the Energy Science and Engineering Program at the Bredesen Center for Interdisciplinary Research and Education. He is involved in research and development focused on electro-fermentation, microbial fuel cells and electrolysis cells, and application of bioelectrochemical systems in the biorefinery and the oil and gas industry.

He has published more than 45 peer-reviewed publications and holds 4 patents. He has also contributed to three books in the area of biocatalysis and bioenergy. His interests lie at the interface of biology, electrochemistry, and engineering, which are targeted toward increasing energy efficiency during electrosynthesis of fuels and chemicals from biomass and waste. He works on understanding the limitations of electroactive biofilms and developing strategies to optimize processes directing electron transfer from low-value resources to higher-value products. He is also on the editorial board of three journals focused on biochemical technology and renewable energy.



Barbara Bramble

Senior Advisor for International Affairs National Wildlife Federation and Roundtable on Sustainable Biofuels



Barbara J. Bramble is Senior Director for International Wildlife Conservation at the National Wildlife Federation (NWF), the largest conservation education nongovernmental organization in the United States. She is also Chair of the Board of the Roundtable on Sustainable Biomaterials.

For more than two decades she has directed NWF's advocacy to improve U.S. international environmental policy and to build consensus with business on voluntary certification standards for sustainable agricultural and forest products, including for bioenergy. Before joining NWF, she served as legal advisor to the White House Council on Environmental Quality and as an environmental lawyer in private practice.



Matt Carr Executive Director Algae Biomass Organization



Matthew Carr, Ph.D., is the Executive Director of the Algae Biomass Organization (ABO). He has deep experience in helping biotechnology companies and the overall industry navigate the complex policy arenas at the state and federal levels.

Prior to his leadership role at ABO, Matt worked for the Biotechnology Industry Organization (BIO), the world's largest trade association representing biotechnology companies, academic institutions, state biotechnology centers, and related organizations across the United States and more than 30 other nations. He was the Director of Policy, Industrial

and Environmental Section for six years and the Managing Director of the Industrial and Environmental Section for three. Matt collaborated with biotechnology companies that strive to produce products and strategies that help local, state, and federal governments achieve sustainability, security, and economic development goals. Before joining BIO, Matt was the American Meteorological Society Congressional Fellow on the Senate Agriculture Committee for Senator Tom Harkin (D-IA), where he contributed to the development of the biomass provisions of the Energy Policy Act of 2005.

Matt began his career as an environmental reporter for the Dallas Morning News after earning a doctorate in atmospheric sciences from the University of Washington and a Bachelor of Science in Atmospheric & Ocean Sciences (Honors) from McGill University.



Ronald R. Chance Executive Vice President and Head of Engineering Algenol



After graduation from Dartmouth with a doctorate in physical chemistry, Dr. Chance began his career with Honeywell Corporation, where he served in a number of research positions including Research Manager for 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 the Georgia Tech as Professor of the Practice with a joint appointment in the School of Chemical and Biomolecular Engineering and the School of Chemistry and Biochemistry. He

also served as Associate Director of the Strategic Energy Institute. In 2009, he was named Executive Vice President and Head of Engineering for Algenol. Dr. Chance's primary research interest is CO₂ capture and utilization. He has published more than 170 peer-reviewed papers, is an inventor on more than 30 U.S. patents, and is a fellow in the American Physical Society.



Sunil Chandran

Director, Biology Amyris, Inc



Sunil Chandran is a director in the research and development division as well as the head of the Automated Strain Engineering group at Amyris. His primary interests lie in the field of metabolic engineering for the microbial production of chemicals and fuels.

While the metabolic engineering community has been extremely successful in commercializing microbial processes, optimization of microbes for economical industrial-scale production of target molecules requires numerous changes to the genetic code of the microbe, which is extremely time-consuming. Sunil's focus is to accelerate the design-build-test cycle within any strain engineering endeavor by reducing the cost and effort of performing molecular biology while simultaneously increasing throughput.



Wilfred Chen Professor University of Delaware



Professor Wilfred Chen obtained his Bachelor of Science from University of California, Los Angeles, in 1988 and his doctorate from the California Institute of Technology in 1993, both in chemical engineering. After a oneyear postdoctorate in Switzerland, he joined the University of California, Riverside, in 1994. He was Professor of Chemical and Environmental Engineering and the holder of Presidential Chair until he moved to the University of Delaware in 2011, where he is now the Gore Professor of Chemical Engineering. His research interests are in synthetic biology, protein engineering, and nanobiotechnology.



Tim Cohn Senior Project Manager Leidos Engineering



Tim Cohn works in the U.S. Geological Survey (USGS) Office of Surface Water, where he has co-authored more than 40 papers on methods for estimating flood risk and related topics. He previously served as USGS Science Advisor for Hazards and as the American Geophysical Union's 1995–1996 American Association for the Advancement of Science Congressional Science Fellow in the office of Senator Bill Bradley.

Tim holds a Master of Science and doctorate from Cornell University and a Bachelor of Arts from Swarthmore College.



Randy D. Cortright Chief Technology Officer/Founder Virent, Inc.



Dr. Randy D. Cortright is the founder and Chief Technology Officer of Virent Inc. He has more than 35 years of experience in the field of catalytic processing of both fossil fuel and biomass-derived feedstocks into chemicals and fuels. Dr. Cortright's background includes research and development, process design, start-up, and operations of large-scale industrial catalytic processes at UOP LLC, a provider of petroleum and petrochemical process technologies.

He received a Bachelor of Science and Master of Science in chemical engineering from Michigan Technological University. After leaving UOP, Dr. Cortright earned his doctorate in chemical engineering from the University of Wisconsin. While working at the University of Wisconsin, Dr. Cortright

co-invented Aqueous Phase Reforming, the innovative pathway to biofuels and bioproducts used by Virent's BioForming[®] technology platform.





Bill Crump Senior Project Manager Leidos Engineering

Mr. Crump received his degree in chemical engineering from Arizona State University and has 30 years of experience in the energy and chemical fields. Mr. Crump was Senior Supervisor for the engineering, procurement, and construction firm Worley-Parsons, where he provided process design services for projects in the Americas, Europe, Africa, former Soviet Union, Middle East, and Asia.

He is currently a Senior Project Manager for Leidos Engineering where he performs independent engineering reviews of oil, gas and biofuel, and biochemical projects. He is currently managing a portfolio of projects valued

at more than \$1 billion. Mr. Crump has served as the lead reviewer for the Bioenergy Technologies Office project peer reviews in 2013 and 2015 and has participated in a number of BETO project merit reviews and conferences.



Daniel Cummings President POET-DSM Joint Venture



Dan Cummings is the President of POET-DSM Advanced Biofuels, a joint venture between POET—one of the largest ethanol producers in the United States—and DSM, an international life and material sciences company based in the Netherlands.

POET-DSM was built on the strengths of both companies to create a joint venture with a critical mission—making cellulosic bio-ethanol competitive with other biofuels and licensing the technology package to third parties in the Unites States and around the world.

Before coming to POET-DSM, Dan served as President of INEOS New Planet BioEnergy and also held senior business and legal positions with

INEOS and BP, including work in advanced fuels, chemicals, and renewables. He has more than 25 years of experience in the energy and clean tech sectors involving corporate management, project finance and development, strategic partnerships, licensing, technology transfer, and legal and corporate affairs.

Dan holds a law degree from Temple University, a Master of Public Administration from the University of Southern California, and a Bachelor of Arts in economics from the University of Puget Sound. He is a frequent speaker at industry conferences and serves on the Board of the Industrial & Environmental Section of Bio.org and the Board for the Advanced Ethanol Council.



Claire Curry Associate Bloomberg New Energy Finance



Claire Curry is an associate at Bloomberg New Energy Finance (BNEF). She is on the Advanced Transport team and focuses on technologies including the next-generation biofuels, lithium-ion batteries, fuel cell electric vehicles, and biochemicals. She has been at BNEF for three and a half years, previously completing a master's degree in sustainable energy futures at Imperial College London.

Claire holds a Bachelor of Science in chemistry from Durham University.



Bruce E. Dale University Distinguished Professor Michigan State University



Professor Dale received his bachelor's (summa cum laude) and master's degrees in chemical engineering from the University of Arizona in Tucson, Arizona, and his doctorate from Purdue University in 1979. He is currently University Distinguished Professor of Chemical Engineering at Michigan State University. Professor Dale also serves as Editor in Chief and Founding Editor of Biofuels, Bioproducts and Biorefining. He won the Charles D. Scott Award (1996) for his contributions to the use of biotechnology to produce fuels and chemicals and the Sterling Hendricks Award (2007) for his contributions to agriculture.

Dale was named a fellow of the American Institute of Chemical Engineers in 2011. Also in 2011 he received the Award of Excellence of the Fuel Ethanol Workshop. At number 14, Professor Dale is the highest-ranked academic in the Top 100 People in Bioenergy (*Biofuels Digest*). He has published more than 250 journal papers and has received 42 U.S. and international patents. His research interests are cellulosic biofuels, the relationship between energy and societal wealth, life-cycle assessment, and the design of integrated agroecosystems for producing sustainable fuels, chemicals, food, and animal feed.



Paul J. Dauenhauer

Professor & Co-Director

Catalysis Center for Energy Innovation, University of Minnesota



Paul Dauenhauer is Professor of Chemical Engineering and Materials Science at the University of Minnesota. He serves as co-director of the Catalysis Center for Energy Innovation, a U.S. Department of Energy— Energy Frontier Research Center. Until 2009, he was a senior research engineer with the Dow Chemical Company within Core R&D. He holds Bachelor of Science degrees in chemical engineering and chemistry from the University of Wisconsin and a doctorate from the University of Minnesota.

His work has been highly awarded, including the Camille Dreyfus Teacher Scholar, the National Science Foundation CAREER Award, and the DOE

Early Career Award. His work on catalysis and reaction engineering has been featured in both *Science* and *Nature* and has led to numerous patents in three start-up companies in the United States.



Bob Dineen President and Chief Executive Officer Renewable Fuels Association



Bob Dinneen is the President and CEO of the Renewable Fuels Association (RFA), the leading trade association for America's ethanol industry. Collectively representing the majority of U.S. ethanol industry leaders and supporters, RFA's mission is to increase the production and use of renewable fuels and to create a dynamic, robust ethanol industry.

As the ethanol industry's lead lobbyist before Congress and the Administration, Bob has been instrumental in advancing policies that protect the environment, strengthen the U.S. economy, and promote energy independence. Since 2008, Bob has repeatedly been recognized as a "top lobbyist" by Capitol Hill's must-read newspaper, The Hill. A noted expert on energy and environmental policy and issues affecting the U.S. ethanol industry, Bob regularly testifies before federal agencies and congressional

committees. His views and expertise have been solicited by top policymakers in the Bush (41), Clinton, Bush (43), and Obama Administrations, including Secretaries of Energy, Agriculture, Treasury, and Commerce, and the Director of the U.S. Environmental Protection Agency. Bob has represented the U.S. ethanol industry at state, national, and international forums and addressed major gatherings of international leaders in Europe and South America.

For more than two decades, Bob's advocacy and leadership have helped to move RFA and the ethanol industry forward. In 1988, he joined RFA as Legislative Director and assumed the role of President in 2001. Bob's successful coalition-building efforts have paved the way for industry growth and directly resulted in public policy achievements such as the expansion of the historic Renewable Fuel Standard (RFS) to 36 billion gallons by 2022.

A frequent speaker on ethanol-related issues, Bob has been featured in top print, broadcast, and online media outlets, including The New York Times, The Washington Post, The Wall Street Journal, USA Today, the Associated Press, Reuters, NBC, ABC, CBS, CNN, CNBC, FOX, and a wide variety of regional and trade publications. Additionally, Bob is a featured contributor on The Huffington Post, the Web's most widely read blog for political news.

Prior to joining RFA, Bob worked in the U.S. Congress for various representatives and congressional committees.

Bob graduated from the Catholic University of America with a bachelor's degree in political science.


Corinne Drennan

Energy & Environment Directorate Pacific Northwest National Laboratory



Corinne Drennan joined the Pacific Northwest National Laboratory (PNNL) in 2007. Her research interests include chemical and biological process development, energy systems analysis, and conversion of biomass and "waste" streams to liquid fuels and chemicals. Her expertise is in applied research including design, build, and operation of test stands as well as process design and modeling for technoeconomic analysis.

Currently, Corinne serves as PNNL's Laboratory Relationship Manager, working with the Bioenergy Technologies Office (BETO) and PNNL staff to

develop and execute a research, development, and demonstration portfolio that serves Energy Department and PNNL missions. This includes strategic planning and capability development, multi-year program and resource loaded planning support, BETO technical support, Annual Operating Plan development coordination and budgeting, and quarterly tracking and reporting for PNNL's ~\$17M applied bioenergy portfolio.

Corinne holds a Master of Science in chemical and environmental engineering and a Bachelor of Science in chemical engineering, both from the University of California, Riverside.



Geoffrey Duyk

Managing Director and Partner TPG Alternative and Renewable Technologies/TPG Biotechnology



Prior to joining TPG in 2004, Dr. Duyk served on the board of directors and was President of Research and Development at Exelixis, Inc., where he led a group of more than 550 people focused on the discovery and development of small molecule therapeutics. Prior to Exelixis, he was one of the founding scientific staff at Millennium Pharmaceuticals, Inc. As Vice President of Genomics, Dr. Duyk was responsible for building and leading the informatics, automation, DNA sequencing, and genotyping groups as well as the mouse and human genetics group.

Prior to this, Dr. Duyk was an assistant professor at Harvard Medical School in the Department of Genetics and Assistant Investigator of the Howard Hughes Medical Institute. While at HMS, Dr. Duyk was a Co-Principal

Investigator in the National Institutes of Health (NIH)-funded Cooperative Human Linkage Center.

Dr. Duyk has been and continues to be a member of numerous NIH panels and oversight committees focused on the planning and execution of the Human Genome Project, and is the Treasurer and a Director of the American Society of Human Genetics.

Dr. Duyk graduated from Wesleyan University in 1980 with a bachelor's degree in biology and was elected to Phi Beta Kappa. He holds a doctorate and M.D. from Case Western Reserve University and completed his medical and fellowship training at the University of California, San Francisco (UCSF).

While at UCSF, he was a fellow of the Lucille P. Markey Foundation and was also awarded a postdoctoral fellowship from the Howard Hughes Medical Institute. Dr. Duyk is an emeriti trustee of Wesleyan University and a trustee of Case Western Reserve University. He is a fellow of the American Association for the Advancement of Science. Dr. Duyk currently serves on the boards of directors of Aerie Pharmaceuticals, Inc., Amyris, Inc., Beta Renewables, DNAnexus, Inc., Elevance Renewable Sciences, Inc., Epirus Biopharmaceuticals, Galleon Pharmaceuticals, Inc., Genomatica, and Karos Pharmaceuticals, Inc.





Jennifer Dunn Biofuel Analysis Team Lead Argonne National Laboratory

Dr. Jennifer B. Dunn is a principal environmental analyst and lead of the Biofuel Analysis Team at Argonne National Laboratory. She also serves as the BETO-Argonne Laboratory Relationship Manager. She investigates life-cycle energy consumption and environmental impacts of advanced transportation and fuel technologies, including biofuels and battery-powered electric drive vehicles.

Prior to joining Argonne, Jennifer led life-cycle analysis projects in the United States for URS Corporation and supported mobile source emission reduction programs at the U.S. Environmental Protection Agency. She holds a doctorate in chemical engineering from the University of Michigan.



Lisa Dyson Chief Executive Officer Kiverdi



Dr. Dyson is the CEO of Kiverdi, a next-generation sustainable oil company that converts CO₂ and waste carbon gases into customized oils using the power of biotechnology. Dr. Dyson's technical background began with a doctorate in physics from Massachusetts Institute of Technology (MIT) and has included research in bioengineering, energy, and physics at Stanford University; University of California, Berkeley; Princeton University; University of California, San Francisco; and Lawrence Berkeley National Laboratories. Dr. Dyson was a Fulbright Scholar at the University of London, where she received a Master of Science, and has degrees in physics and mathematics from Brandeis University.

Dr. Dyson has broad business experience developing corporate strategies in a number of industries, including packaging, energy, automotive, chemicals, telecommunications, travel, and non-profits. While at The Boston Consulting Group, Dr. Dyson worked with executives at multi-national corporations to help them solve strategic business problems including cutting operational costs, expanding internationally, franchising, developing governance structures, designing effective organizations, and developing market entry strategies. Dr. Dyson's entrepreneurial background began when she was on the founding team of an MIT startup that received funding from Microsoft and later built and led a team that developed a technology that reached millions in volunteering campaigns.

Among her recent accolades, Dr. Dyson was honored this year by the San Francisco Business Times as "One of the Most Influential Women in the Bay Area" for a second year in a row and was given its "Forty Under 40" award for her leadership.



Laurence Eaton

Research Economist

Oak Ridge National Laboratory/U.S. Department of Energy



Laurence Eaton is an agricultural and natural resource economist in the Environmental Sciences Division at Oak Ridge National Laboratory. His area of expertise is the large-scale modeling of forestry and agricultural systems for biomass for energy and products. He contributed to the analysis and development of the *2011 Billion-Ton Update* and is leading agricultural analysis in a follow-up assessment for 2016. He is currently on detail to the Bioenergy Technologies Office at the U.S. Department of Energy where he serves on the Feedstock Supply and Logistics platform, providing support in the area of resource assessment and economic analysis of new energy pathways and renewable energy systems.



John Eichberger

Vice President of Government Relations National Association of Convenience Stores and Executive Director, The Fuels Institute



John Eichberger is Vice President of Government Relations for the National Association of Convenience Stores (NACS), where he oversees the association's government relations activities, represents the convenience and fuel retailing industry, and directs the association's fuels related activities. Eichberger represents an industry that operates more than 120,000 fuel retailing outlets and sells more than 80% of the fuel in the United States. He joined NACS in 2000 after serving two years as an energy and environmental advisor to Representative Greg Ganske of Iowa.

In addition, in 2013 Eichberger was named Executive Director of The Fuels

Institute, a non-profit, independent think tank founded and managed by NACS. Drawing diverse stakeholders from the vehicle and fuels industries, The Fuels Institute encourages multi-industry collaboration and produces credible, independent analytical reports to better inform business leaders and policymakers about opportunities and challenges in the vehicles and fuels markets.

With more than 17 years of related experience, Eichberger is a recognized expert on motor fuels and the fuels retailing industry. He has testified before Congress, regularly speaks to a wide variety of industry groups, is frequently seen as a guest on CNBC's *Squawk Box*, and is often quoted by national media outlets.



Mark Elless Technology Manager, Bioenergy Technologies Office U.S. Department of Energy



Dr. Elless is a technology manager at the U.S. Department of Energy's Bioenergy Technologies Office (BETO), with a focus on feedstock supply and logistics. Prior to joining BETO in 2012, Mark was the Grants and Alliances Manager at FuturaGene, which focuses on development of woody biomass for biofuel production. Before FuturaGene, Mark was the Director of Grants and Technology at Edenspace Systems Corporation, which focuses on the engineering of lignocellulosic biomass for enhanced biofuel production.

Mark received a Bachelor of Science in geology and a Master of Science in soil science from North Dakota State University as well as a doctorate in soil

science from the University of Maryland. He completed his postdoctoral training at Oak Ridge National Laboratory. Mark has published more than 20 peer-reviewed papers and has served on several review panels for the federal government.



John Farrell

Laboratory Program Manager, Vehicle Technologies National Renewable Energy Laboratory



John Farrell is the Laboratory Program Manager for Vehicle Technologies at NREL, in which capacity he manages the EERE Vehicle Technologies Office research and development portfolio. This work includes biofuel/engine interactions, energy storage, thermal management, fleet testing and analysis, vehicle/grid interactions, alternative fuels/vehicles deployment, and legislative support. John is also co-leading the Optima Effort, a multi-lab, multi-DOE-office initiative focused on the co-optimization of new low-carbon fuels and high-efficiency engines.

Prior to joining NREL, John spent fifteen years at ExxonMobil's Corporate Research Laboratory, where he conducted research focused on identifying

fuel composition effects on vehicle efficiency and emissions. He also had a number of other technical, supervisory, and strategic planning assignments in diverse areas including life-cycle assessment, algal biofuels development, molecular separations, and process chemistry. He holds Bachelor of Science and a doctorate in chemistry and completed a postdoctoral fellowship at the Combustion Research Facility at Sandia National Laboratories.



Daniel Fishman

Technology Manager, Bioenergy Technologies Office U.S. Department of Energy



Daniel B. Fishman is a technology manager with the Bioenergy Technologies Office (BETO) at the U.S. Department of Energy. He joined BETO in 2012. Prior to joining BETO, Daniel was a lead analyst with consulting firm BCS, Incorporated. Daniel received his Master of Science in aquatic science from the University of Michigan's School of Natural Resources and the Environment and has a background in aquatic ecology, dynamic ecosystem mathematical modeling, and harmful algal blooms. Daniel received a Bachelor of Science in Environmental Systems from Revelle College at the University of California, San Diego.



Jay Fitzgerald ORISE Fellow, Bioenergy Technologies Office U.S. Department of Energy



Jay is a chemist and microbiologist with several years of experience in basic research. He is currently a fellow at the Bioenergy Technologies Office (BETO) at the U.S. Department of Energy (DOE), where he manages a portfolio of projects related to biochemical conversion of biomass to fuels and chemicals. Prior to his fellowship at BETO, Jay was an AAAS Fellow at DOE's Office of Science. His graduate work focused on the construction of biosynthetic pathways to medicinally relevant polyketide compounds. Jay earned his Bachelor of Arts in biochemistry at Middlebury College and his doctorate in organic chemistry at Stanford University.



Nichole Fitzgerald ORISE Fellow, Bioenergy Technologies Office U.S. Department of Energy



Nichole is a synthetic organic chemist with more than 10 years' experience in basic research. She is currently a fellow in the Bioenergy Technologies Office at the U.S Department of Energy (DOE), where she manages a portfolio of biofuel and bioproducts research projects, contributes to strategic plans, and helps formulate funding opportunities. Prior to her fellowship at DOE, Nichole was an National Institutes of Health postdoctoral fellow at the University of California, Berkeley, where she developed highly effective and now commercially available reagents for pharmaceutical applications. Nichole earned her Bachelor of Science in chemistry at the College of William and Mary and her doctorate at Stanford University.







Jason Force is an electrical engineer with twenty years of industry experience in the aerospace and defense technology sector. His work includes guidance and navigation sensors for vehicles in air, sea, ground, and space applications, and electronics and control systems for a broad array of devices from software-defined Radio-Frequency communications to power supply design.

Jason gained an interest in biomass-powered robotics and biomass fuel conversion chemistry as a method of extending the range and power handling capability of remote mobile robotics. Harvesting robots was a natural extension of this work.



Lori Giver Vice President, Biological Engineering Calysta, Inc.



Lori Giver is Vice President of biological engineering at Calysta Inc., where they are developing methanotrophic bacteria as a platform technology for the conversion of methane to animal feed and chemicals. Previously, she was Vice President of systems biology at Codexis, Inc., where she focused on the technical development of methods for the directed evolution of enzymes and production organisms. She has a Bachelor of Science in molecular and cell biology from University of California, Berkeley, a doctorate in molecular, cell, and developmental biology from Indiana University, Bloomington, and did her post-doctoral research at the California Institute of Technology.



Robert Graham Chairman and Chief Executive Officer Ensyn Corporation



Dr. Robert Graham, Chairman and CEO of Ensyn Corporation, is Ensyn's founder and has led Ensyn's commercial and technical development since the first Ensyn company was established in 1984. Bob's early work from first principles led to the development of Ensyn's core RTP™ conversion technology and early commercial applications for the production of specialty chemicals and heating fuels from wood residues. In the late 1990's, Bob guided the development of the heavy oil upgrading application of the RTP technology and the subsequent sale of RTP petroleum rights in 2005.

Since 2005, Bob has led Ensyn's refocused effort on the production of cellulosic liquid fuels, including heating and refinery coprocessing applications. To help achieve this goal, Bob established a key strategic

alliance UOP, and he sits on the Management Committee of Envergent Technologies LLC, the Ensyn/UOP joint venture.

Dr. Graham has published more than 60 works in technical and trade journals, and has been granted more than 30 patents relating to the conversion of wood and other biomass to chemicals and fuels as well as the upgrading of petroleum. He obtained a B.Sc. from Carleton University, Ottawa, Ontario and an M. Eng and doctorate from the University of Western Ontario, London.



Noah Helman Chief Science Officer Industrial Microbes



Noah Helman is a co-founder and the Chief Science Officer at Industrial Microbes, where he focuses on transferring methane-assimilation metabolic pathways into yeast and bacteria. He is also responsible for patent strategy, grant writing, partnerships, and press.

Prior to founding Industrial Microbes, Noah was an early member of the synthetic biology group at LS9, an advanced biofuels and biobased chemicals company. At LS9, he developed a protein engineering workflow to integrate design, construction, screening, and analysis to optimize the iterative cycle of directed evolution.

His postdoctoral work at University of California, San Francisco centered on designing and engineering the dynamics of signaling pathways in yeast. Before becoming interested in synthetic biology, Noah completed his degrees in physics/applied physics at Harvard and Stanford.



Doug Hoelscher Director, Office of State-Federal Relations State of Iowa



Doug Hoelscher was appointed by Governor Terry Branstad in February 2011 and confirmed by the Iowa Senate as the Director of the Iowa Office for State-Federal Relations. He was subsequently reappointed by Governor Branstad and reconfirmed in 2015. In this role, Doug develops and executes Iowa's state-federal relations program serving as a liaison between elected and appointed officials at various levels and branches of government.

Doug serves as the primary state liaison for regional and national associations, such as the National Governors Association, Council of Governors, Midwestern Governors Association, Governors Wind Energy Coalition, and Governors Biofuels Coalition.

Previously, Doug spent three years at PricewaterhouseCoopers, where he advised federal agencies, helping to assess and improve the effectiveness of government programs and provided leadership on the execution of various projects and programs. Doug's previous public service included several years as the White House Liaison and as the Executive Director of the Homeland Security Advisory Committees for the U.S. Department of Homeland Security, where he helped incorporate the perspectives of state, local, private sector, and academic partners into homeland security policy.



Suzanne Hunt

President and Founder Hunt Green LLC



Suzanne Hunt is the president and founder of Hunt Green LLC. Suzanne's organization provides strategic advising on transportation, energy, agriculture, and the environment. In addition to this work, she also serves as Senior Advisor to the Carbon War Room, where she leads their work on aviation and renewable fuels.



Kristen Johnson

Sustainability Technology Manager, Bioenergy Technologies Office U.S. Department of Energy



Kristen Johnson is the Sustainability Technology Manager with the U.S. Department of Energy's Bioenergy Technologies Office, where she coordinates the Office's efforts to understand and promote the environmental benefits of bioenergy while reducing potential negative impacts. She manages analysis and research projects that focus on greenhouse gas emissions, land use, air quality, water, and biodiversity impacts of bioenergy production systems.

Kristen joined the Bioenergy Technologies Office in 2009 as a Presidential Management Fellow. During her two-year fellowship, she led communications, outreach, and legislative monitoring activities; served as

special assistant to the Principal Deputy Assistant Secretary for Energy Efficiency and Renewable Energy; and completed a five-month rotation at the U.S. Environmental Protection Agency's Office of Transportation and Air Quality, where she assisted with life-cycle greenhouse gas analyses of renewable fuels under the Renewable Fuel Standard program.

Kristen holds Bachelor of Science in biology and English and a Master of Science in natural resources from the University of Michigan.



Brendan Jordan Vice President Great Plains Institute



Brendan leads initiatives to promote commercialization and adoption of clean energy technologies and practices in the areas of bioenergy, transportation, fuels, and energy infrastructure. Examples of his work include collaborating with the Midwestern Governors Association to promote clean fuel infrastructure, working on regional efforts to build out transmission capacity to enable increased renewable electricity generation, working with electric utilities on electric vehicle promotion, developing policy to commercialize advanced biofuels and biobased chemicals at the state and national level, and collaborating with communities on urban design.

Brendan is lead staff for the Bioeconomy Coalition of Minnesota, a multi-stakeholder initiative dedicated to cultivating the state's advanced biofuel, biobased chemical, and biomass thermal sectors through state policy development.

Brendan has a master's degree in science, technology and environmental policy from the University of Minnesota, and a bachelor's degree in biology from Carleton College. He lives in Minneapolis, Minnesota.



Jeffrey S. Kanel President and Chief Executive Officer Renewable Algal Energy, LLC



Dr. Jeffrey S. Kanel is the President and CEO of Renewable Algal Energy, LLC (RAE), a biotechnology company which brings to market sustainable products derived from algae using its patented, revolutionary technology for cost-effective, integrated algae production systems. RAE's four primary products are proteins, omega-3s, carotenoids, and RAE Technology including licenses, custom equipment, and technical services. These products serve the large global markets of nutraceuticals, animal feeds, and renewable fuels.

Dr. Kanel earned a Bachelor of Science in chemical engineering from The University of Akron, and a Master of Science and doctorate in chemical

engineering from the Georgia Institute of Technology. He has more than 20 years of industrial experience while working at Kodak, Eastman Chemical Company, Union Carbide, and the Dow Chemical Company, where he held various leadership positions in engineering research divisions. His primary focus was on separations-based unit operations, and he has taught the liquid extraction course for the American Institute of Chemical Engineers. Dr. Kanel was invited on two separate occasions to attend the National Academy of Engineers Frontiers of Engineering program. He currently serves on the President's Advisory Board at The University of Akron and on the Advisory Committee for the Tennessee Advanced Energy Business Council.



Jim Lane Editor and Publisher *Biofuels Digest*



Jim Lane is the editor and publisher of *Biofuels Digest*, the most widely read biofuels daily newsletter. The Digest covers producer news, research, policy, policymakers, conferences, fleets and financial news. It is home to the Biofuels Digest Index[™], The 30 Most Transformative Technologies, and the "50 Hottest Companies in Bioenergy" annual rankings.



Lee R. Lynd Professor of Engineering Dartmouth College



Dr. Lynd is the Paul and Joan Queneau Distinguished Professor of Engineering and an Adjunct Professor of Biology at Dartmouth College, Director and Chief Scientific Officer of Mascoma Corporation, Focus Area Lead for Biomass Deconstruction and Conversion at the U.S. Department of Energy Bioenergy Science Center, and Executive Committee Chairman of the Global Sustainable Bioenergy Project. Professor Lynd is an expert on utilization of plant biomass for production of energy. He has been featured in prominent fora such as *Wired*, *Forbes*, *Nova*, and the Nobel Conference.



G. Jeremy Leong

Conversion R&D Fellow, Bioenergy Technologies Office U.S. Department of Energy



G. Jeremy Leong is a conversion research and development fellow for the Bioenergy Technologies Office at the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy. He received his Bachelor of Science in chemistry from the Rochester Institute of Technology, served as a post-baccalaureate research associate at the National Renewable Energy Laboratory's Chemical and Materials Science Center, and earned a doctorate in applied inorganic chemistry at the Colorado School of Mines.

His main research interest is in materials genomics; employing theoretical/simulation approaches in conjunction with novel synthesis and characterization techniques to guide the design of nanomaterials while

developing fundamental understanding of observed phenomena and properties at the nanoscale. His research has covered a wide spectrum of catalytic and storage applications, including bioenergy, hydrogen storage, fuel cells, and batteries. Since 2009, Jeremy has authored more than a dozen peerreviewed manuscripts and internal reports as well as presented more than 20 conference talks on the chemistry of materials: design, synthesis, characterization, and their practical applications.



Bruce E. Logan

Kappe Professor of Environmental Engineering Pennsylvania State University



Professor Bruce E. Logan is an Evan Pugh Professor, the Stan & Flora Kappe Professor of Environmental Engineering, and Director of the Engineering Energy & Environmental Institute at Penn State University. His current research efforts are in bioenergy production and the development of an energy-sustainable water infrastructure. Dr. Logan has mentored more than 110 graduate students and post docs, and is the author or co-author of more than 420 refereed publications and several books (h-index=98, Google Scholar). He is the founding Deputy Editor of the new American Chemical Society journal *Environmental Science & Technology Letters*, a member of the U.S. National Academy of Engineering, and a fellow of the American

Association for the Advancement of Science, the International Water Association, the Water Environment Federation, and the Association of Environmental Engineering & Science Professors.

Dr. Logan is a visiting professor and collaborator with researchers around the world, including universities located in the United Kingdom, Belgium, Saudi Arabia, and China. He received his Ph.D. in 1986 from the University of California, Berkeley. Prior to joining the faculty at Penn State in 1997, he was on the faculty at the University of Arizona.



Tryg Lundquist

Associate Professor California Polytechnic State University, San Luis Obispo



Tryg Lundquist, Ph.D., P.E., is an associate professor of civil and environmental Engineering, California Polytechnic State University, San Luis Obispo, (Cal Poly) and a principal in the consulting firm MicroBio Engineering Inc. He has more than two decades of experience with microalgae production, from laboratory studies to multiple-acre raceway ponds, for the treatment of municipal and agricultural wastewaters and the production of biofuel feedstock, including economic and greenhouse gas life-cycle assessments. Lundquist also has extensive experience in innovative low-cost technologies in the areas of anaerobic digestion, hydrogen fermentation, bacterial systems for nitrogen control, manure management, and disaster relief drinking water treatment. He is currently

Principal Investigator for two U.S. Department of Energy (DOE) Bioenergy Technologies Office algae biofuel projects, and Cal Poly's pilot raceway facility is one of the ATP³ national testbed sites sponsored by DOE. MicroBio Engineering Inc. provides scientific consulting, pilot raceway equipment, and full-scale facility designs for aquaculture, nutraceutical, biofuel, and water treatment applications worldwide.



Michael McAdams President Advanced Biofuels Association



Michael McAdams is the President of the Advanced Biofuels Association, representing more than 40 advanced biofuels companies. Mr. McAdams has more than 30 years of experience in government and public affairs in both the public and private sectors. He has worked in both the federal legislative and regulatory areas, specializing on energy, fuels policy, climate change, air policy, and taxation.

In the private sector, Mr. McAdams has worked for a number of advocacy organizations focused in the areas of fuels and air policy. He also worked more than 14 years for BP, where he was the associate group policy advisor

to then CEO Lord John Browne. He also served as the Vice President of the eastern United States for government and public affairs, as well as Vice President of government affairs and the environment. He played a significant role in the greening of BP working in climate change, clean fuel introductions, and the strategic expansions into biofuels, solar, and wind.

From 1981–1985, Mr. McAdams served as legislative director to Congressman Ralph Hall (R-TX). In 1980, he was a field coordinator for President Jimmy Carter's election campaign. Prior to that, he was a legislative correspondent for Congressman Ray Roberts (D-TX).



Taite R. McDonald Senior Policy Advisor Holland & Knight LLP



Taite R. McDonald is a senior policy advisor in Holland & Knight's Washington, D.C. office and a member of the firm's Public Policy & Regulation Group. Ms. McDonald works with energy and clean technology companies to develop and execute strategies for access to government grants, loans, and contracts across multiple states and federal agencies, including the U.S. Department of Energy, U.S. Department of Agriculture, and U.S. Department of Defense.

Ms. McDonald provides counsel to companies seeking millions of dollars of funding and hundreds of millions of dollars in low-cost financing. She advises clients on securing multimillion-dollar procurement contracts and

plays a pivotal role in assisting clients to overcome gating obstacles by forging key partnerships with federal agencies and other government-facing bodies. Ms. McDonald also helps companies develop strategies for leveraging public and private financing mechanisms to successfully commercialize innovative energy technologies.

Additionally, Ms. McDonald is a frequent speaker on topics related to renewable energy and government finance and has spoken at dozens of conferences and events, including the BIO World Congress, the Advanced Biofuels Leadership Conference, the Association of Defense Communities Advanced Energy Summit, the Power-Gen International Finance Forum and the Cleantech Group's Global Cleantech 100 Summit.



John McGowen

Director of Operation and Program Management Algae Testbed Private Partnership, Arizona State University



Dr. McGowen is currently serving as Director of Operations and Program Management for the Algae Testbed Public Private Partnership (ATP³), a \$15 million project funded by the U.S. Department of Energy (DOE), and is responsible for the implementation of the Executive Team processes, leadership of the program management team, planning and control of program budgets, tracking milestones, and reporting back to DOE. In addition, Dr. McGowen is responsible for identification, coordination, and implementation of projects for customers at Arizona State University's (ASU's) Arizona Center for Algae Technology and Innovation's (AzCATI) algae testbed facility and those of their partners, as well as the identification and implementation of best practices in algae growth and processing,

standardization of methodologies and the implementation of their long-term cultivation feedstock trials experimental framework.

As a portfolio manager and founding member of ASU's Project Management Office, Dr. McGowen's key responsibilities center on developing, adapting, and integrating project management best practices into an academic translational research and development environment. His specific focus is on large-scale proposal development, teaming—including industrial outreach, collaboration, and relationship management, as well as project and program execution. He has more than 18 years of project/portfolio management and technology development experience and has been a certified Project Management Professional (PMP[®]) since 2008.



Jim Millis Chief Technology Officer BioAmber



Jim Millis is Chief Technology Officer for BioAmber Inc., a bio-based chemical company that completed a successful initial public offering in May 2013. Mr. Millis has worked in the field of industrial biotechnology for more than 30 years. Prior to joining BioAmber, Mr. Millis served as CEO of Draths Corporation from 2007–2009 and as Technical Director for Cargill's Industrial Bioproducts business unit from 2001–2007, during which time new chemical businesses were created in bio-based urethane polyols, bio-based acrylic acid, and in the application of metathesis chemistry (the latter now Elevance Renewable Sciences).

His earlier positions included business and technical leadership roles at Maxygen (now Codexis) and Bio-Technical Resources. Mr. Millis has been

involved in the commercial development and scale-up of several technologies, spanning fermentation and chemical catalysis, and has more than 20 issued U.S. patents.



Fred Moesler Chief Technology Officer Renmatix



Fred leads the technology strategy, process development, research, operations, and engineering for Renmatix's unique supercritical water, cellulose hydrolysis, platform called Plantrose technology. Fred has a wealth of experience in both the chemical and bioindustrial industries with roles spanning production, optimization, research, and process development responsibilities.

Fred held positions at Dow Chemical, Dow AgroSciences, NatureWorks/Cargill, ZeaChem, and Rennovia before joining Renmatix in 2011. Fred received his Bachelor of Science in chemical engineering from the University of North Dakota.



Molly Morse Chief Executive Officer Mango Materials



Dr. Molly Morse is the CEO and co-founder of Mango Materials, a San Francisco Bay Area-based start-up company that uses methane gas to feed bacteria that manufacture a biopolymer. Molly received her doctorate in civil and environmental engineering—with an emphasis on anaerobic biodegradation of biocomposites for the building industry—from Stanford University, and her Bachelor of Science in civil and environmental engineering from Cornell University. Dr. Morse has contributed to multiple patents, publications and presentations. Along with other Mango Materials team members, she is currently working to up-scale the technology of using methane gas to produce a biodegradable polymer.



Prabhakar Nair

Executive Vice President of Business Development LanzaTech



Prabhakar joined Lanzatech from UOP LLC, a Honeywell company, where he was marketing director for its Renewable Energy and Chemicals business unit. In that role, he was responsible for creating linkages and alliances with feedstock suppliers and end users of fuel technologies in the aviation and automotive sectors, tracking global biofuels legislation, and developing the business unit's strategic plan.

From 1999–2005, Prabhakar served as General Manager of UOP's India operations. Prior to that he held a variety of sales, technical service and marketing positions in UOP's other Asian offices as well as

at UOP's headquarters in the United States. He holds a Bachelor of Chemical Engineering from the City University of New York, a Master of Chemical Engineering from Illinois Institute of Technology, and a Master of Business Administration from Northwestern University. He is also conversant in several Asian languages.



Carolyn Olson

Senior Scientist, Climate Change Program Office Office of the Chief Economist, U.S. Department of Agriculture



Dr. Carolyn Olson is a senior scientist with the Climate Change Program in the U.S. Department of Agriculture (USDA) Office of the Chief Economist. Dr. Olson currently leads climate change adaptation planning and implementation for USDA and its sub-agencies. She has held various research and supervisory positions with USDA and prior to that, was a research hydrologist and research geologist with the U.S. Geological Survey.

Dr. Olson is a recipient of numerous awards, including a USDA Honor Award, a Fulbright Research Fellowship and a Science and Technology Fellowship at Harvard. Her research interests include soils and geomorphic

processes, paleo-climatic landscape evolution, paleopedology, and climate change and variability. Dr. Olson has published in numerous scientific journals, including *Science* and *Nature Outlook*.

Dr. Olson received a Bachelor of Science, Master of Arts, and doctorate in geology from Indiana University while minoring in soils and civil engineering, and a Master of Public Administration from the Kennedy School of Government at Harvard University in Public Administration.



Harrison Pettit

Vice President of Business Development PacificAg, LLC



Harrison is a partner in Pacific Ag, LLC and a co-founder of its bioenergy feedstock supply predecessor company, PowerStock. Harrison brings nearly twenty years of experience identifying opportunities and leading corporate strategic business initiatives for growth. Prior to PowerStock, Harrison was an early employee of Pacific Ethanol, Inc. (NASDAQ:PEIX) as its Director of Business Development building-out its 220 million gallons of ethanol production, and engaged in the evaluation of M&A and investment opportunities in conventional and next-generation biofuels. Harrison earned his Master of Business Administration from Georgetown University and his Bachelor of Arts from the University of Wisconsin-Madison.



Tim Portz Executive Editor Biomass Magazine



Tim Portz is the Vice President of Content for BBI International and the Executive Editor of Ethanol Producer Magazine and Biomass Magazine. In this role, Tim is responsible for the agenda development process for all of BBI International's conferences.

Additionally, Tim oversees the editorial teams at *Ethanol Producer Magazine* and *Biomass Magazine*, working with editorial boards to ensure that online and print content align with the needs of those titles' readers. Tim was born and raised in central lowa and holds a Bachelor of Fine Arts from the University of Iowa.



John Ralph

Professor, Great Lakes Bioenergy Research Center University of Wisconsin-Madison



Ralph has more than 40 years of experience in lignin and plant cell wall chemistry/biochemistry via the Forest Research Institute in Rotorua, New Zealand, (16 years), the U.S. Department of Agriculture—Agricultural Research Service U.S. Dairy Forage Research Center in Madison, Wisconsin (20 years), and in the Department of Biochemistry and the U.S. Department of Energy Great Lakes Bioenergy Research Center (7 years).

His group has been recognized for its work on the following:

- · General plant cell wall chemistry/biochemistry
- Lignin biosynthesis (including pathway delineation); lignin structure, chemistry, reactions
- Delineation of effects of perturbing lignin biosynthesis, and extensions aimed at redesigning lignins to be more readily degraded to improve lignocellulosics bioprocessing
- Development of synthetic methods for biosynthetic products, precursors, intermediates, molecular markers, cell wall model compounds, etc.
- Solution-state NMR (particularly of cell wall components, especially lignins); methods development; NMR methods applied to unfractionated cell walls
- Plant cell wall cross-linking mechanisms
- Methods for wall structural analysis (chemical/degradative, NMR, GC-MS, etc.)
- Processes such as biomass to bioenergy, pulping, and valorization of cell wall components.


Len Rand Chief Executive Officer and Chairman xF Technologies Inc.



Len has more than 40 years of start-up and venture experience as a founder, senior executive, and venture capitalist. Prior to xF Technologies, Len Rand was a managing director at Granite Ventures in San Francisco for 10 years. While at Granite, he invested in a variety of technology and cleantech companies. Before Granite, Len was a general manager at Intel Corporation responsible for Strategic Marketing and Global Alliances for ICG (Intel Communications Group). Prior to that, Len was CEO and founder of NetBoost Corporation, which developed network processors and supporting software. Intel acquired NetBoost in 1999.

Prior to that, Len was founder and CEO of three other venture-backed startups: Internet Middleware (proxy caching), sold to Network Appliances; The Whitewater Group (object oriented development tools— CEO only), sold to Symantec; and The Rand Group (FEA software), sold to Intergraph Corporation. In addition, Len was a vice president/general manager at Autodesk and Intergraph. Len holds multiple degrees in engineering from Rensselaer Polytechnic Institute.



Jeffrey G. Reed

Director, Business Strategy and Advanced Technology Southern California Gas Company



Jeffrey Reed is the Director of Business Strategy and Advanced Technology for Southern California Gas Company. In that capacity, he leads a variety of activities aimed at supporting the development and deployment of sustainable energy solutions. In his current and prior roles, Jeff has led the electric and natural gas research, development, and demonstration; venture investment and low-emissions vehicle programs; and he is responsible for the company's long-range technology forecasting and strategic planning.

Jeff is currently on the Leadership Council of the Los Angeles CleanTech Incubator and is board president on the California Hydrogen Business

Council. Prior to joining the Sempra utilities, Dr. Reed was a senior strategy consultant and an officer with ABB Power Generation. He also held prior positions in product design, development, and research. He holds a doctorate in engineering from the University of California, Berkeley, and a master's degree in management from Stanford University.



Theodora Retsina

Chief Executive Officer American Process Inc.



Dr. Theodora Retsina is the CEO of American Process Inc. (API). She received a Bachelor of Science and a doctorate in chemical engineering from Imperial College, University of London, and is a licensed professional engineer. In 1995, she founded API—a company that focuses on biomass value enhancement through process integration, biorefinery technology applications, and value engineering.

API's unique qualifications enables the company to develop technically and financially viable biorefineries producing cellulosic sugars of different forms and purities for the production of fuels, chemical and materials. "Sugar is the new crude[™]" is the company's core belief. API's GreenPower+® technology suite can be applied to any biomass and produces commercial

quantities of cellulosic ethanol at the Alpena, Michigan Biorefinery.

API's demonstration plant in Thomaston, Georgia, is using API's AVAP® technology to fractionate various types of biomass into low-cost clean streams of C5 and C6 sugars and lignin. The C6 sugars have been successfully converted to a variety of chemicals by API's partners with the same performance as dextrose.

In 2014, API started up its BioPlus[™] pre-commercial plant, which produces four types of nanocellulose crystals or fibrils—conventional as well as lignin-coated varieties. BioPlus[™] materials have advantages over other forms of nanocellulose, including high crystallinity, lower cost, higher thermal stability, and hydrophobic surface functionalization.



Mark J. Riedy

Partner Kilpatrick Townsend & Stockton LLP



Mark J. Riedy is a partner at Kilpatrick Townsend & Stockton LLP in Washington, D.C. and co-leads its Energy, Project Finance and Clean Technologies Practice of more than 64 attorneys.

For more than 37 years, he has focused his practice on complex project development and finance, private placement, M&A, investment fund structuring and related investments, and regulatory and legislative compliance representation in more than 60 countries worldwide for renewable and conventional energy and chemicals, clean energy technology, energy storage, data center, environmental and infrastructure clients. His clients represent developers, lenders, EPCs, O&Ms, equipment providers,

private equity, venture capital, and infrastructure funds.

Mr. Riedy received his Juris Doctor from the Georgetown University Law Center and graduated Phi Beta Kappa and Summa cum laude from the University of Michigan with a bachelor's degree. He has received numerous awards over his career, including *Biofuels Digest* as a Top 100 World Bioenergy Leader (#49 in 2014–2015, #56 in 2013–2014, #50 in 2012–2013 and #67 in 2011–2012), *Legal Leaders* as one of "Washington, D.C. & Baltimore's Top Rated Lawyers" for Business and Commercial Law (2012–2015) and Martindale-Hubbell* as an AV[®] Preeminent[™]-rated attorney (past 18 years). Mr. Riedy also is one of the five founders and General Counsel of the American Council On Renewable Energy (2001–2015) and is the Vice Chairman of the American Bar Association's Project Finance and Program Committees in the Energy, Environment and Natural Resources Section (2010–2015).



Ashley Rose Senior Research Analyst BCS, Incorporated



Ms. Rose has more than seven years of experience handling a wide variety of government, policy, and energy security issues. As a senior research analyst with BCS, Incorporated, Ms. Rose has supported the Bioenergy Technologies Office (BETO) since 2010. Ms. Rose is responsible for the main interagency activities in BETO, including the Biomass Research and Development Board and Technical Advisory Committee. She collaborates on and supports a number of advanced biofuels and bioproducts activities at BETO, including military, marine, and aviation initiatives.

Ms. Rose graduated from Tulane University in 2009 with bachelor's degrees in both political science and political economy, with a concentration in law, economics, and policy. She is currently pursuing a Master of Arts at Johns Hopkins University in global security studies with

a concentration in energy and environmental security. Ms. Rose also is an active member of the Junior League of Washington, an international women's organization focused on promoting voluntarism, developing potential, and improving local communities.



Wendy Rosen Leader, Global Public Affairs DuPont Industrial Biosciences



Wendy Rosen is currently the head of public affairs for DuPont's \$1.3 billion Industrial Biosciences division. In her role, she leads global external engagements for the division's portfolio businesses in advanced biofuels, biomaterials, and bioactives, which include end-use markets as varied as renewable fuels to laundry and dish detergents to animal nutrition and textile processing.

Prior to joining DuPont in 2011, Wendy specialized in cleantech public relations in San Francisco working with clients in the solar, wind, and

renewables markets. She got her start in public affairs in Washington, D.C. as a press secretary on Capitol Hill and has also worked at the Business Software Alliance representing leading software and hardware companies. She holds a Master of Arts in public communication from The American University and currently lives in Marin County, California, with her fiery, four-year-old red-headed twins.



David Ross Managing Director MultiGen International, LLC



David Ross is Managing Director of MultiGen International, a project development firm focused on the development of waste conversion projects. David brings 17 years of expertise in the renewable energy and waste-toenergy sectors, with a specific focus on technology deployment and market development. His special skills include early-stage company development, project modeling, project viability assessment, information technology system integration, and collection and project development coordination and management. David holds a Bachelor of Science in Entrepreneurial Management from the University of South Carolina.

Most recently, David was Program Manager for the U.S. Department of Energy, Energy Efficiency Conservation Block Grant (EECBG) program. The EECBG program provided \$3.2 billion to state and local communities for implementation of energy efficiency and renewable energy projects. Prior to service with the U.S. Department of Energy, David was co-founder and Vice President of Operations for Infinity Energy, Inc., a development company focused on waste-to-energy project development. He was instrumental in securing an exclusive license for a plastic-to-diesel pyrolysis technology in the United States. Prior to his development work in alternative energy, David was the Director of Operations for a regional engineering and consulting firm in Atlanta that served the power plant industry.



Michele Rubino

Vice President of Business and Corporate Development Beta Renewables



Michele Rubino is currently with Beta Renewables—a joint venture between Italian chemical company MG Chemicals, global biotech leader Novozymes, and Private Equity TPG—focused on commercializing its industry-leading PROESA technology for the conversion of lignocellulosic non-food biomass to low carbon intensity, petroleum replacements such as biofuels and bio-based chemicals. At Beta Renewables, Michele oversees licensing as well as business and corporate development activities. Prior to this, Michele spent five years at Synthetic Genomics, a San Diego-based life sciences startup focused on commercializing Craig Venter's cutting-edge genomic technologies.

He worked in a business development capacity within the industrial biotechnology group. Michele also worked for many years in the biofuels division for a large agri-industrial company in both the United States and the European Union. He also has entrepreneurial experience in the biofuels area. Michele holds a Master of Science in industrial engineering from the Politecnico of Milan as well as a Master of Business Administration from the Sloan School of Management at the Massachusetts Institute of Technology.



Melissa Savage Senior Program Director National Association of State Energy Officials



Melissa Savage is a senior director with the National Association of State Energy Officials (NASEO). In her role, Ms. Savage oversees NASEO's efforts in comprehensive state energy planning, state energy policy, energy efficiency, and renewable energy. Prior to her position with NASEO, Ms. Savage was a subject matter expert with SAS Institute, Inc. focusing on energy and transportation policy and developing cutting-edge advanced analytics solutions to help governments leverage data to solve complex planning challenges. While at SAS Institute, Inc., Ms. Savage authored whitepapers, developed content for the SAS social media platform, and

made presentations to government clients.

Before coming to SAS Institute, Inc., Ms. Savage was a Director at the National Conference of State Legislatures (NCSL) in the Energy, Environment, and Transportation program. During her 13 years with NCSL, Ms. Savage authored dozens of publications and served as media spokesperson on energy, environment, and transportation issues. She testified before state legislative committees and represented NCSL and the interests of state legislatures before national organizations and working groups on a variety of topics. She received her master's degree in public administration from the University of Colorado and her bachelor's degree from Colorado State University.



Joanna Schroeder Editor DomesticFuel.com



Joanna Schroeder is the Editor of DomesticFuel.com as well as a freelance energy and agriculture reporter for other publications including *Biofuels Journal*, AgWired.com, *Biofuels International*, *Denver Post*, and more. Schroeder not only covers the news; she also serves as an energy expert for other national media outlets and has been featured in several documentaries.

Each month, she reviews agriculture and energy books with the reviews featured on DomesticFuel.com and syndicated to other news sites. Schroeder also councils those in the energy and agricultural industries on how to develop more effective messaging. She has a Bachelor of Science

in Environmental Science and Master of Science in Technical Communications from Iowa State University.



Mitchell Schultz

R&D Manager of the Separations Science Group Archer Daniels Midland Company



Dr. Mitchell Schultz is R&D Manager of the Separations Science group at Archer Daniels Midland Company (ADM). In this role, he is responsible for investigating novel separation technologies, as well as managing a team of researchers in support of continuous optimization of current plant processes and the development, piloting, and implementation of new purifications processes.

Dr. Schultz joined ADM in 2011 as a scientist in the process development group, where he was primarily focused on developing new applications for simulated moving bed chromatography and supporting continuous improvement efforts in production.

Prior to joining ADM, Mitchell spent three years as a research

investigator in process research and development at Bristol-Myers Squibb, where he was responsible for the development and scale-up of various chemical reactions in support clinical trials.

Mitchell holds a Bachelor of Science in chemistry from Southwest Minnesota State University and a doctorate in organic chemistry from the University of Utah.



Patrick Serfass

Executive Director American Biogas Council



Patrick has led the American Biogas Council since early 2010 when he helped 22 companies came together to form the first and still only trade association representing the biogas industry nationwide. The American Biogas Council now represents more than 200 organizations and has a network of more than 9,000 stakeholders in the biogas industry.

Before biogas, Patrick has more than 12 years of experience growing other clean energy industries, such as solar and hydrogen energy, through Technology Transition Corporation, the company that manages the American

Biogas Council. In Patrick's early career, he has been a physical oceanographer and architectural engineer and designed unmanned deep ocean vehicles.



Andy Shafer

Executive Vice President, Sales and Market Development Elevance Renewable Sciences



Andy has more than 30 years of experience in specialty chemicals and plastics, building businesses, and leading global multifunctional teams, and is responsible for managing a portfolio of business opportunities focused on developing industrial products from modified vegetable oils. An original executive in Cargill-Dow (now NatureWorks, LLC), Andy was a commercial director, responsible for establishing the packaging and fibers businesses and the company's initial customer base in Asia.

During his career, Andy has served as a key strategic commercial and business manager for Fortune 50 businesses, built and managed organizations from their inception, and led multifunctional teams to achieve

high performance and outstanding results. Andy has a bachelor's degree in chemical engineering from the University of Notre Dame and a Master of Business Administration from the University of Minnesota's Carlson School of Management.



Blake Simmons

Biofuels Program Lead Sandia National Laboratories



Blake Simmons is the Biofuels Program Lead at Sandia National Laboratories, where he has been responsible for overseeing the development of more energy-efficient and cost-effective methods to achieve the first step in bioenergy production: deconstructing biomass into fermentable sugars.

Blake also serves as the Chief Science & Technology Office and Vice President for Deconstruction for the Joint BioEnergy Institute.



Siva Sivasubramanian Fellow, Bioenergy Technologies Office U.S. Department of Energy



Siva Sivasubramanian is currently a fellow at the Bioenergy Technologies Office of the U.S. Department of Energy (DOE) in Washington, D.C. He has more than 25 years of experience in technology development, process development, project development, engineering design, and software development for biochemicals, biofuels, petrochemicals, water purification, and energy applications.

He has worked at Metabolix, Mascoma Corporation, and Aspen Technology. He has also consulted for several international companies in the areas of separation processes, technology evaluation, and due diligence, technoeconomic analyses, and business strategy.

Siva holds a Master of Science and doctorate in chemical engineering from Clarkson University in Potsdam, New York. He has also attended executive education programs at Harvard Business School in Boston, Massachusetts.



James J. Spaeth

Program Manager, Demonstration & Market Transformation, Bioenergy Technologies Office, U.S. Department of Energy



Mr. Spaeth serves as the U.S. Department of Energy (DOE)'s Bioenergy Technologies Office (BETO) Demonstration & Market Transformation Program Manager. Demonstration and Market Transformation reduces the risk of bioenergy production technologies through validated proof of performance at the pilot, demonstration, and pioneer scale. The current BETO portfolio includes a DOE investment of more than \$1 billion and consists of 28 projects focused on the development of advanced biofuels, including renewable hydrocarbons and cellulosic ethanol.

Previous to this position, Mr. Spaeth served as the Senior Advisor for the U.S. Department of Energy's Pacific Region activities. In this role, Mr. Spaeth led DOE's partnership efforts with the State of Hawaii and private sector participants working in pursuit of the Hawaii Clean Energy Initiative's 70% clean energy by 2030 goal.

Prior to the Pacific Region position, Mr. Spaeth served as DOE's Director for the Office of Commercialization & Project Management, located in Golden, Colorado. Mr. Spaeth also led the Golden Field Office Biomass Program team focusing on research, commercialization, outreach, and policy development in support of advanced biofuels. Mr. Spaeth joined DOE in 1994, initially working in project management in the areas of biomass power, biofuels, solar thermal, photovoltaics, and hybrid electric vehicle technologies. While at DOE, Mr. Spaeth also served as a legislative fellow for Senate Majority Leader Harry Reid on the Energy and Water Appropriations Subcommittee.

Prior to joining DOE, Mr. Spaeth worked for more than 10 years in the aerospace industry in engineering and business development positions with McDonnell Douglas and Boeing. Mr. Spaeth's educational background includes a Bachelor of Science in mechanical engineering earned with high honors from the University of Illinois and a Master of Business Administration with an emphasis in technology management and international market development.



Chris Standlee

Executive Vice President of Institutional Relationships and Governmental Affairs Abengoa Bioenergy Corporation



Christopher Standlee serves as an executive vice president of institutional relationships and governmental affairs at Abengoa Bioenergy Corporation, LLC. Mr. Standlee maintained a private law practice in Wichita, Kansas, through the mid-1990s and represented High Plains Corporation as outside counsel for approximately 10 years. High Plains Corporation was acquired by Abengoa and officially became Abengoa Bioenergy Corporation. Mr. Standlee served as General Counsel of Abengoa Bioenergy Corporation since March 1995 and its Vice President since November 1996.

He also serves as Co-Chairman of the Biotechnology Industry Organization's Industrial and Environmental Section Working Group. He serves as Director of the Renewable Fuels Association and Biotechnology Industry Organization. He served as a Director at Abengoa Yield plc until March 2015. Mr. Standlee received his undergraduate degree from Yale University in political science, and his Juris Doctorate from the University of Kansas.



Bryce Stokes Senior Advisor CNJV



Dr. Stokes has more than 36 years of experience in research and development and program management. His research has focused on forest harvesting machine and system design and management, biomass recovery and utilization, environmental impacts reduction, carbon accounting, carbon sequestration management, climate change issues, forest productivity and genomics, short rotation woody crops, life-cycle analysis, and sustainability criteria and indicators.

He was a forest engineer for Weyerhaeuser Company and a research engineer, project leader, and national program leader for the U.S.

Department of Agriculture Forest Service. Since his federal retirement, he has been providing technical and analytical support to the U.S. Department of Energy's Bioenergy Technologies Office as a senior advisor with CNJV. He has held leadership positions in several departmental and interagency bioenergy and climate change working groups. He served as a congressional fellow in 2002.

Dr. Stokes has had national leadership positions in the Council on Forest Engineering, Forest Products Society, and the American Society of Agricultural and Biological Engineers. He served as a U.S. representative or as Task Lead or Associate Task Lead for several International Energy Agency Tasks for about 20 years. He has more than 140 scientific and technical publications. He co-led the 2011 update of the *Billion-Ton Study*. He received his Bachelor of Science and Master of Science from Mississippi State University in engineering and his doctorate from Auburn University in forestry.



Jessie Stolark

Policy Associate Environmental and Energy Study Institute



Jessie Stolark is a policy associate at the Environmental and Energy Study Institute (EESI), based in Washington, D.C. EESI is a 501(c)(3) non-profit organization dedicated to promoting environmentally sustainable societies. EESI was founded by a bipartisan congressional caucus in 1984. Today, EESI functions as an independent organization that receives no congressional funding, but maintains its strong relationship with Congress, serving as a trusted source of credible, non-partisan information on energy and environment solutions.

Jessie leads EESI's Sustainable Biomass Program, which covers issues pertaining to climate and biomass, including biofuels, bioenergy, biobased products, agriculture, and forestry. Additionally, Jessie is the editor for EESI's weekly newsletter, *Sustainable Bioenergy, Farms, and Forests*.

Jessie holds a Master of Science in applied geosciences from the University of Pennsylvania and a Bachelor of Arts from Bryn Mawr College.



Sarah Studer

ORISE Fellow, Fuel Cell Technologies Office U.S. Department of Energy



Sarah Studer is an ORISE fellow supporting the Fuel Cell Technologies Office (FCTO), part of the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE). As a microbiologist, she focuses on the use of biomass and biological processes to produce gaseous fuels to run fuel cells. As a member of the Hydrogen Production Team, she supports the connection of basic and applied research and development in the area of hydrogen production with FCTO goals, provides technical expertise for biological hydrogen production projects, and contributes to efforts to gather and share information such as workshops and reports.

In addition, she supports the H2Refuel H-Prize competition, a \$1 million competition that opened in October 2014. She received a doctorate in

microbiology from the University of Wisconsin-Madison for her work on bacteria communication in a symbiosis between a luminescent bacterium and a squid, and a Bachelor of Science in biochemistry from Occidental College.



Tom Thompson

Maritime Environmental and Energy and Technical Advisor U.S. Maritime Administration



Tom Thompson works at the U.S. Maritime Administration (MARAD) in the Office of Environment, where he is the Maritime Environmental and Energy Technical Advisor. He works with liquefied natural gas, bioenergy, fuel cells, and other alternative fuels, and also in the areas of energy conservation and energy efficiency. With the U.S. Department of Energy's Zia Haq, he co-chairs an inter-agency task team on alternative maritime energy, especially propulsion.

Before joining MARAD, Tom worked for a mergers and acquisitions advisory firm. He is a graduate of Johns Hopkins University, where he earned a Bachelor of Arts, Master of Arts, and doctorate in economics and international relations.



Chris Tindal

Director for Operational Energy Office of the Deputy Assistant Secretary of the Navy for Energy



Chris Tindal started his federal civil service career in 1988 at Naval Facilities Engineering Command (NAVFAC) in Charleston, South Carolina, working in facilities management, operations, and energy management. He moved up to NAVFAC headquarters in Washington, D.C. in 2006 to work in the Department of Navy's Energy Program as the Energy Operations Director.

In 2008, Chris became the Director for Operational Energy, working for the Deputy Assistant Secretary of the Navy for Energy. In this position, Chris is in charge of setting energy policy and direction for the Department of the Navy and promoting adoption of alternative fuels and renewable energy resources. Additionally, he is developing intergovernmental,

international, and industry relationships throughout the energy field. Chris is the Navy leader of the Great Green Fleet effort and is striving to increase alternative energy use so that 50% of the Department of Navy's energy originates from alternative sources by 2020.

Chris Tindal has been a Navy man for more than 30 years. He graduated from the U.S. Naval Academy in 1980 with a degree in mechanical engineering and served on active duty on two ships in Charleston, South Carolina. He retired as a captain in the Navy Reserves in 2010.



Meltem Urgun-Demirtas Principal Environmental Engineer Argonne National Laboratory



Meltem Urgun-Demirtas is the leader of the waste-to-energy program and a principal environmental engineer at Argonne National Laboratory. She has published more than 25 papers and has 2 U.S. patents and one R&D 100 Award.

Meltem has a Bachelor of Science in chemical engineering from Turkey and a doctorate in environmental engineering from the Illinois Institute of Technology. She has more than 15 years of experience in the wastewater treatment field.



Joel Velasco Senior Vice President Albright Stonebridge Group

Joel Velasco is a senior vice president at Albright Stonebridge Group, where he draws on extensive experience working in Latin American markets across a range of sectors to help clients to navigate challenges and opportunities for sustainable growth.

Previously, Mr. Velasco was Senior Vice President for external relations, including investor relations and public affairs, at the biotech firm Amyris. Prior to Amyris, he was Chief Representative in North America for the Brazilian Sugarcane Industry Association (UNICA), where he led UNICA's efforts to expand biofuel and sugar markets.

From 2001 to 2008, Mr. Velasco was a managing director at ASG, working specifically on the Latin America team. Previously, he served as

a senior advisor to the U.S. Ambassador to Brazil and as a personal aide to Vice President Al Gore at the White House.

Mr. Velasco received his Master of Arts from Georgetown University's School of Foreign Service and a Bachelor of Arts in political science from Hampden-Sydney College in Virginia. He is a member of the U.S. Department of Commerce's Renewable Energy and Energy Efficiency Advisory Committee and the Brazil Institute at the Woodrow Wilson Center in Washington D.C. He speaks Portuguese and has command of Spanish.



Aaron Wells Communications Consultant Fuels America



Aaron is a communications principal with the Smoot Tewes Group and leads communications efforts for the Fuels America coalition. Fuels America is a coalition of organizations committed to promoting the benefits of all types of renewable fuel already growing in America. The Smoot Tewes Group is a fully integrated political and public affairs consulting firm.

Aaron is a seasoned campaign and communications professional with senior communications and management experience on electoral campaigns, as well as renewable energy and environment issue campaigns inside and outside the Beltway.



Todd A. Werpy

Senior Vice President, Chief Technology Officer Archer Daniels Midland Company



Dr. Todd Werpy is Senior Vice President and Chief Technology Officer for Archer Daniels Midland Company (ADM). In this role, he is responsible for ensuring that technology delivers cost improvements and competitive advantage, and that ADM delivers on its strong pipeline of improvement projects. Werpy also ensures that ADM has the right focus and resources to support the rejuvenation of its product mix through product innovations across the value chain.

Prior to joining ADM in 2007, Werpy spent 15 years at Pacific Northwest National Laboratory, where he was responsible for research and business development for new chemicals and chemical intermediates from renewable feedstocks.

Werpy developed the catalytic technology being commercialized by ADM for the conversion of glycerin and sorbitol to propylene glycol. He holds 32 U.S. patents in the area of catalysis and chemical conversion of biomass to chemicals. In addition, Todd Werpy was selected as the recipient of the 2015 American Chemical Society Award for Affordable Green Chemistry by Dow Chemical Co.



Rick D. Weyen

Vice President, Strategy and Business Development Tesoro Companies, Inc.



Rick D. Weyen is the Vice President, Strategy and Business Development, for Tesoro Companies, Inc. Mr. Weyen joined Tesoro in 2001 as the Refinery Manager at the Salt Lake City, Utah, refinery, and he has held a variety of roles at Tesoro's corporate headquarters in San Antonio, Texas, including Vice President of Operations for Tesoro Logistics LP, as well as positions in Marketing and Corporate Strategy.

Prior to joining Tesoro, he had more than 20 years of experience in the refining and marketing business with Amoco Corporation and BP. Mr. Weyen has a Bachelor of Science in chemical engineering from Purdue University, and a Master of Business Administration from the University of Houston-Clear Lake.



Ken Williams Program Leader/Principal Chemical Engineer NatureWorks LLC



As Principal Chemical Engineer at NatureWorks— one of the world's leading biopolymer producers—Ken Williams spearheaded major cost and capacity improvements for NatureWorks' Blair, Nebraska, production biorefinery. He is also Program Lead for NatureWorks' sustainable feedstock initiative, including greenhouse gas platforms such as the disruptive Joint Venture announced with Calysta, Inc.

He brings to bear more than a decade of assessing, scaling, and commercializing innovative renewable and biobased technology platforms, from his current positions at NatureWorks to his previous work at Cargill's Process Solutions Technology Development Center. Contributions from this work were honored with the Presidential Green Chemistry

Challenge Award (2008) and Cargill Chairman's Award (2010).

Ken's talk will focus on lessons learned and innovative strategies for deploying sustainable, highvalue renewable chemical technologies globally.

Ken received a Bachelor of Science in chemical engineering (with Highest Honors and Cooperative Plan) in 2001 from Georgia Institute of Technology, and a doctorate in chemical engineering in 2006 from the University of Minnesota, where he held a National Science Foundation Graduate Research Fellowship from 2001 to 2004. His thesis on dynamics of high-temperature catalysis was supervised by Lanny D. Schmidt. Ken has published 10 papers in refereed journals.



May Wu

Principal Environmental System Analyst, Energy Systems Division Argonne National Laboratory



Dr. May Wu is a principal environmental system analyst in the Energy Systems Division at Argonne National Laboratory, a key member of the Water Initiative at Argonne, and the principal investigator of a multi-year water sustainability analysis project funded by the Bioenergy Technologies Office. Dr. Wu's research interests are in the areas of water consumption, water quality, fresh water and alternative water resource use associated with liquid fuel and energy production, and life-cycle analysis, with a focus on biofuels. May is currently leading an effort to develop a spatial-explicit online tool WATER (Water Analysis Tool for Energy Resources) to help support decision makers and policy makers address water sustainability issues associated with bioenergy development. The model assesses the

water footprint of biofuel produced from starch, cellulosic, oil seeds, and algae via various biochemical and thermochemical conversion processes under historical, current, and future scenarios at county-level resolution for the United States.

As a leading investigator, Dr. Wu examined water use in the production of petroleum fuel from the United States and major sources in the world, as well as in the generation of electricity from conventional, renewable, and emerging fuel sources. May also leads a task that applies integrated landscape management, best management practices, and climate change for future biomass production scenarios by using the SWAT model at the river basin and watershed scales. The work covers multiple tributary basins of the Mississippi River Basin. Dr. Wu is a member of the Global Bioenergy Project Bioenergy and Water working group and has provided technical support to the U.S. Department of Energy's Water Energy Tech Team since 2012. Dr. Wu served as an expert advisor to the Water Working Group of the Council on Sustainable Biomass Production.

May has a diverse background that encompasses engineering and microbiology, as well as extensive experience in the areas of industry process and fouling control in cooling system, biological wastewater treatment, biofilm development and control, online monitoring of anaerobic biological process, microbial induced corrosion, succinic acid fermentation, and membrane separation. Dr. Wu has a combined 13 years of experiences in research and development and process engineering and 11 years of environmental sustainability analysis. Dr. Wu holds several U.S. patents, 40+ publications, and a dual doctorate in environmental engineering and environmental toxicology from Michigan State University.



Charles E. Wyman President and Chief Executive Officer Vertimass LLC



Charles Wyman has a distinguished career advancing cellulosic biomass conversion into transportation fuels. Most recently, he is cofounder, president, and CEO of Vertimass LLC, focused on commercializing simple one-step conversion of ethanol into gasoline, diesel, and jet fuel blend stocks. He has been Ford Motor Company Chair in Environmental Engineering at the Center for Environmental Research and Technology and professor of Chemical and Environmental Engineering at the University of California, Riverside since 2005. Prior to that, he was the Queneau Distinguished Professor at Dartmouth College.

Dr. Wyman was cofounder and former Chief Development Officer and SAB Chair of Mascoma Corporation and led process development for BC International for a planned cellulosic ethanol plant. Between 1978 and 1997, he held Center Director, Division Director, Biotechnology Research Branch Manager, and other leadership positions at the National Renewable Energy Laboratory. He also worked at Badger Engineers, the University of New Hampshire, and Monsanto.

Wyman has a Bachelor of Science from the University of Massachusetts, a Master of Arts and doctorate from Princeton University, all in chemical engineering, and a master of business administration from the University of Denver. He has contributed to numerous peer-reviewed papers, book chapters, edited volumes, presentations, and patents, and has edited books on biomass pretreatment and cellulosic ethanol.



Emily York Vice President of Marketing Abengoa



Emily York, Vice President of Marketing for Abengoa, oversees the global branding, marketing, and public relations for the bioenergy division of Abengoa. Prior to joining Abengoa, she was founding principal of Drew Consulting, LLC, a boutique strategic marketing firm that provided traditional and strategic marketing, public relations, and communications expertise to firms ranging from startup to Fortune 250 companies. Prior to consulting, she worked for the nation's largest homebuilder, Pulte Homes.

Her strategy expertise encompasses demographic targeting, market research, feasibility studies, competitive market strategy development, and environment analysis. Her tactical marketing skills include traditional marketing, brand positioning, public relations, advertising and Web/digital development.

York holds a Bachelor of Arts in public relations from Auburn University and a Master of Business Administration from Pace University.



Corinne Young Chief Executive Officer Corinne Young, LLC



Like her cutting-edge clients, Corinne Young is a disruptive change agent for the new economy. With more than 20 years of deal-making success, she provides competitive advantage in structuring and securing strategic funding and partnerships for access to capital and speed to market. As fierce advocate for renewable chemicals, she launched *re:chem* with an elite group of global leaders, and spearheaded game-changing language in the 2014 Farm Bill expanding Biorefinery Section 9003 loan guarantees to renewable chemicals-bioproducts. She continues to lead innovative solutions to sector value chain challenges and critical path needs.

During her ten years on Capitol Hill in the Senate (Sen. Kennedy), House,

and Executive Office of the President/OMB, she garnered a reputation as a nimble and effective problem solver, bridging partisan divides to get the job done, including seminal bioindustry programs: chief broker of RFS2 and incentives in the Energy Policy Act of 2005, the Energy Independence and Security Act of 2007, Farm Bill 2008, the American Recovery and Reinvestment Act 2009, and the White House's 2012 Bioeconomy Blueprint and Advanced Manufacturing Initiative. She is a global spokesperson, C-Level adviser, and opinion leading serving on multiple working groups-boards, including LAUNCH. She has a Master in Public Administration from Cornell, has won prestigious awards, studied multiple languages, and is an avid traveler, equestrienne, and outdoor enthusiast.



Nancy N. Young Vice President, Environmental Affairs Airlines for America (A4A)



Nancy N. Young is the Vice President of Environmental Affairs at Airlines for America[®] (A4A). An environmental attorney with 25 years of experience, Ms. Young directs A4A's environmental programs, represents the A4A airlines in international negotiations regarding aircraft noise and emissions standards, and provides counsel on other environmental issues of significance. She also serves on the Steering Group and as Environmental Co-Lead of the Commercial Aviation Alternative Fuels Initiative[®] (CAAFI)—which is working to hasten the deployment of commercially viable, environmentally-preferred alternative jet fuels—and the Advisory Committee of the Aviation Sustainability Center (ASCENT).

She is also a principal in Farm to Fly—a collaborative effort between the U.S. Department of Agriculture, the U.S. Department of Energy, the

Federal Aviation Administration, CAAFI, A4A, and others in the aviation and alternative fuels industries to stimulate the nation's supply of renewable jet fuel. Ms. Young previously was a partner at the law firm of Beveridge & Diamond, PC. She is a graduate of the College of William and Mary in Virginia and Harvard Law School.