BIOGRAPHIES OF FESAC MEMBERS

Troy Carter is a Professor of Physics at the University of California, Los Angeles. He is a Co-PI of the Basic Plasma Science Facility at UCLA, a user facility for studies of basic plasma physics. His research focuses on fundamental processes in magnetized plasmas and is motivated by current issues in magnetic confinement fusion energy research and in space and astrophysical plasmas. He has addressed topics including magnetic reconnection, turbulence and transport in magnetized plasmas, and the nonlinear physics of Alfvén waves. Along with colleagues at Princeton Plasma Physics Lab, he was the recipient of the 2002 APS Division of Plasma Physics (DPP) Excellence in Plasma Physics Research Award for his work on the role of turbulence in magnetic reconnection. He has an extensive record of service to the plasma physics research community, including serving on: APS committees (DPP Executive Committee, Program Committee, and Rosenbluth and Dawson Award Selection committees); the US Burning Plasma Organization Council; the 2004 FESAC Workforce Panel; the 2009 DOE Committee of Visitors; Program Advisory Committees for the DIII-D and Alcator C-Mod tokamaks and for the Center for Magnetic Self Organization; the University Fusion Association Executive Committee; and the DOE Edge Coordinating Committee. Additionally, he was selected as an APS DPP Distinguished Lecturer for the 2012-2013 academic year. He received B.S. degrees in Physics and in Nuclear Engineering from North Carolina State University in 1995 and received a PhD in Astrophysical Sciences from Princeton University in 2001. He spent one year as a DOE Fusion Energy Sciences Postdoctoral Fellow (at UCLA) prior to joining the UCLA faculty in 2002.

Robert Cauble is Director of the Jupiter Laser Facility at Lawrence Livermore National Laboratory. He received his PhD in theoretical plasma physics in 1980 in the Nuclear Engineering Department at the University of Michigan. As an employee of Berkeley Research Associates, he worked in the Plasma Physics Division at the Naval Research Laboratory from 1980 through 1985. From 1986 until 2001 he served as a physicist in the Defense and Physics Directorates at Lawrence Livermore National Laboratory. During 2002 he was leader of a program linking these two directorates. From 2002 he led the Physics Directorate's "H" Division, condensed matter and high-pressure physics, before taking over Jupiter in 2008. Robert served on the IEEE Plasma Science Executive Committee from 2002 to 2004 and chaired the 2005 IEEE ICOPS. At various times, he has served on the Technical and Fellowship committees of both the APS Shock Compression of Condensed Matter Topical Group and the APS Division of Plasma Physics. He served on the LCLS Materials in Extreme Conditions proposal review panel from 2012 to 2014, chairing the panel from 2013. He was co-chair of the inaugural International Workshop on Warm Dense Matter. He is a member of the International Advisory Board of the Conference on Strongly Coupled Coulomb Systems and the Science Advisory Committee of the High Intensity Beamline for Extreme Fields at the European XFEL. He is a recipient of two DOE Recognition of Excellence Awards and the APS Award of Excellence in Plasma Physics Research. He is a Fellow of the APS. His primary research interests are in theoretical and experimental high energy-density science and the theory of strongly-coupled plasmas.

Arati Dasgupta is an internationally recognized atomic and plasma physicist whose research spans pulsed power radiation sources, inertial confinement fusion, laser-matter interactions, astrophysics and lighting. She leads activities in the modeling and simulation of experimental High Energy Density (HED) laboratory and astrophysical plasmas. She conducts research and reviews proposals related to DOE's OFES and NNSA research activities. She has been widely recognized for her essential contributions to the success of radiation-source development programs. Her benchmark atomic models have had significant impact on the understanding of experiments at major national facilities including nested-wire and gas-puff implosions on the Z facility at the Sandia National Laboratories and the first quantitative X-ray photo-pumping experiments utilizing the LCLS free electron laser. She is an expert in the theory of X-ray spectra and the dynamical behavior of non-local thermodynamic equilibrium High Energy Density Laboratory plasmas. She has also performed atomic calculations to study the formation of hollow atoms and she has developed state-of-the-art atomic models for X-ray generation in Kr and Xe clusters with ultra-short laser pulse interactions. She has performed very complex and detailed structure and collision calculations for many complex atoms. Her atomic models were used for the KrF and Ar-Xe lasers and Molybdenum discharge lamp projects at NRL. Currently she is working on atomic and radiation models for very high Z elements on the NIKE laser in support of the indirect drive campaign on the National Ignition Facility for inertial confinement fusion.

Dr. Dasgupta received her B.S., with honors, in physics, M.S. and doctorate in atomic physics all from the University of Maryland. She is a fellow of American Physical Society and has served on several committees of the APS Division of Atomic, molecular and Optical Physics; she is currently the chair of Women in Plasma Physics committee of the APS Division of Plasma Physics. She has established collaborations with several experimental and theoretical Atomic and Plasma Physics groups in the USA, Europe, and India to help address the Atomic and Plasma Physics needs of the global community.

John E. Foster is an Associate Professor in the Department of Nuclear Engineering and Radiological Sciences at the University of Michigan in Ann Arbor. At Michigan, he serves as the Director of the Plasma Science and Technology Laboratory. He received his B.S. in physics from Jackson State University in 1991 and his PhD in applied physics from the University of Michigan in 1996. As a Research Associate at the National Science Foundation Center for Plasma Aided Manufacturing located at the University of Wisconsin—Madison from 1997 to 1998, he developed plasma diagnostics. Following that appointment, he served as a Senior Research Scientist at NASA's Glenn Research Center (1998-2006) in the area of advanced plasma rocket research. At NASA Glenn, he also served as the Principal Investigator responsible for the high power electric propulsion (HIPEP) on the Jupiter Icy Moon Orbiter project. His current research interests involve the experimental study of low temperature plasmas over regimes ranging from low pressure to well above atmospheric pressure with applications ranging from space propulsion to materials processing to plasma-based environmental mitigation methods such as water purification. He is also interested in plasma-wall interactions as related to fusion plasmas and high power electric propulsion devices. While at NASA, he received the Special Achievement Award for electric propulsion research. In 2003, he received the National Technical Association Physicist of the Year award. In 2004, he was awarded the NASA LERCIP Mentor of the Year. Additionally, in 2005, he received both the Black Engineer of the Year Special Recognition Award and the Emerald Awards Most Promising Engineer Award. In

2008, he received the Nuclear Engineering Faculty Teaching award. In 2010 and 2011, he received the NASA Faculty Fellow Award. In 2013, he received the Department of Nuclear Engineering Outstanding Achievement Award. He currently serves on the National Academies Plasma Committee and was also a member of the IEEE Plasma Science and Applications Technical Committee. He also serves as a member on the NASA Glenn Electric Propulsion and Advanced Concepts Working Group.

Charles M. Greenfield is a Sciences Manager IV at General Atomics. He received his B.A. in physics from the University of California in 1980. While earning his B.A., he was a Teaching Assistant and Quality Assurance Technician in the AVX Materials Division from 1978 to 1980. He then moved to Washington State to become a Teaching Assistant where he received his M.S. and PhD in Nuclear Engineering (plasma physics) from the University of Washington in 1983 and 1988 respectively. Not only was he a Teaching Assistant, but he wrote and implemented the data acquisition system used for all University of Washington fusion experiments in the 1980's. Before receiving his doctorate, Dr. Greenfield was a Pre-Doctoral Research Associate for seven years. In 1987, he began his career as a Senior Scientist. He is a recognized leader in experimental studies of tokamak energy transport and anomalous energy transport via the electron component of the plasma. He was also a member of the group that first identified and characterized the VH-mode regime of very high energy confinement in tokamaks. He also assisted in developing advanced operating scenarios toward high fusion performance and steady-state operation. This type of research integrates a broad range of expertise in transport, stability and control, and relies heavily on integrated modeling. Before becoming Assistant Director for ITER Research for the Experimental Science Division in 2012, Dr. Greenfield was the Deputy Director from 2006 to 2012. He has over 25 years of experience in plasma physics research while exemplifying extensive leadership with the D-III-D program and in the fusion/plasma physics community. He was an American Physical Society/Division of Plasma Physics Distinguished Lecturer in Plasma Physics from 2005-2007. He also founded the educational website http://FusionEd.gat.com. His research interests include transport processes in fusion plasmas and high gain and steady-state integrated operating scenarios.

Richard J. Groebner is a Scientist at General Atomics in San Diego, California. He received his B.S. in physics at St. John's University (Collegeville) in 1971. He served in the United States Army as a Physical Sciences Assistant at Ft. Belvoir, VA from 1972-1974. Subsequently, he received his M.S. and PhD in physics, both from the University of Wisconsin-Madison in 1976 and 1979. From 1979 to the present, Dr. Groebner has been employed by General Atomics as an experimental scientist in magnetic fusion energy, working on the Doublet III and DIII-D tokamaks. His current research interests include transport in H-mode plasmas, physics of edge transport barriers, and measurements of ion temperature, rotation, and density in high temperature fusion plasmas. Dr. Groebner has held various leadership positions within the DIII-D team, particularly in planning and executing the pedestal physics program on the machine. Currently, he is the Deputy Leader of the DIII-D Boundary and Pedestal Physics Group. Throughout his career, he has been actively engaged with the wider fusion community in scientific studies and in various leadership roles. He was the scientific leader of the US-DOE FY2011 Joint Research Target on Pedestal Physics. Dr. Groebner was a member of the C-Mod Program Advisory Committee for four years and chaired the committee for two years. He has participated in and helped to lead pedestal studies under the auspices of the International

Tokamak Physics Activity. He has been a leader of the Edge Physics Working Group of the U.S. Transport Task Force and was a member of the International Program Committee for the Workshop on H-mode Physics and Transport Barriers, retiring from that position at the end of 2013. As a personal research interest, he is actively engaged with the U.S. theory and modeling communities in testing theoretical models against experimental data. Dr. Groebner became a Fellow of the American Physical Society in 1994. He was a recipient of the John Dawson Award for Excellence in Plasma Physics in 2001 for research showing that radial electric fields could suppress turbulence in plasmas.

Chris Hegna is a Professor of Engineering Physics and Physics at the University of Wisconsin-Madison. His primary field is theoretical plasma physics with an emphasis on the area of plasma confinement using magnetic fields. These studies employ analytic and computational techniques to study plasma dynamics and are closely coupled with experimental observations. Particular areas of research interests include nonlinear and noni deal magneto hydrodynamic instabilities, kinetic theory modifications to fluid-like descriptions of plasmas and plasma dynamics in non-symmetric magnetic confinement systems. Professor Hegna serves as the Director of the Center for Plasma Theory and Computation (CPTC) at the University of Wisconsin-Madison. CPTC provides a forum for collaboration on theoretical problems related to the physics of laboratory and natural plasmas with researchers drawn from four academic departments on campus. Professor Hegna is heavily involved in the U. S. fusion science program through his service on a number of professional organizations. Recent activities include: Chair of the Sherwood Fusion Theory Executive Committee, DPP-APS Fellowship Committee, Organizer of the joint US-Japan fusion theory meeting on the theory of 3-D physics in stellarators and RFPs, Theory Coordinating Committee and the US Burning Plasma Organization Council. He received his B.S. in Applied Mathematics, Engineering and Physics from the University of Wisconsin-Madison in 1986, his M.S. in Applied Physics from Columbia University in 1987 and his PhD from Columbia University in 1989. In addition to the University of Wisconsin-Madison, Professor Hegna has held research positions at the National Institute for Fusion Studies in Nagoya, Japan, UKAEA Technologies/Culham Laboratories in Abingdon, England, Columbia University and Princeton Plasma Physics Laboratory.

Valerie Izzo is an Associate Research Scientist in the Center for Energy Research at University of California, San Diego. Dr. Izzo works as part of the General Atomics Fusion Theory group, onsite at GA, and in close collaboration with the DIII-D experimental team. Her research focus is nonlinear MHD modeling, primarily in the area of tokamak disruption mitigation, for which she has developed unique simulation tools, incorporating a range of physics processes relevant to disruptions. Dr. Izzo is a member of the International Tokamak Physics Activity Topical Group on MHD Disruptions & Control, and also leads the Disruption Task Group of the US Burning Plasma Organization. She received her B.A. in Physics and Mathematics at Simon's Rock College in 1999, and Ph.D. in Plasma Physics at the University of Washington in 2004. Before arriving at UCSD she was a DOE Fusion Energy Science Postdoctoral Fellow, working as part of the Alcator C-Mod research team at the MIT Plasma Science and Fusion Center.

Stephen Knowlton is Professor Emeritus from Auburn University in Auburn, Alabama. He received his Ph.D. in experimental plasma physics in 1984 from the Massachusetts Institute of Technology, and joined the Sponsored Research Staff at MIT's Plasma Fusion Center where he worked primarily on radio-frequency heating and current drive experiments on the Alcator C tokamak. While employed by MIT, he was an academic visitor to the JET Joint Undertaking in the United Kingdom for 2 years (1986-1988). In 1989, he joined the Physics Department faculty at Auburn University, ultimately reaching the position of Full Professor. At Auburn, he led the laboratory of experimental fusion energy research, hosting researchers from Ukraine and Japan, and also conducted research in Nagoya, Japan as an invited visitor to the National Institute of Fusion Sciences (1999). While at Auburn, he was active in the University Fusion Association, becoming its treasurer, vice-president and then president, concluding his terms in 2008. He has served on the Program Advisory Committees of the National Compact Stellarator Experiment and Alcator C-Mod, the Executive Board of the American Physical Society's Division of Plasma Physics, and on two recent FESAC planning panels. His research interests include the stability and confinement of plasmas in stellarator devices for magnetic fusion energy research, radio-frequency heating and current-drive in toroidal plasma devices, and plasma diagnostic techniques. Officially retired from Auburn University, he continues to carry out experimental fusion research centered at the stellarator facility at Auburn. He is also a member of the Board of Directors of the Washington Electric Co-operative utility in Vermont.

Kristina Lynch is a Professor of Physics and Astronomy at Dartmouth College. She received her PhD in physics in 1992 from the University of New Hampshire. She remained at UNH as a research scientist and research faculty, moving to Dartmouth in 2002 to join the physics faculty. She spent a sabbatical term in 2007 at KTH in Stockholm; and a sabbatical year (2012-2013) as a Visiting Scientist in the Applied Physics and Mathematics (APAM) department at Columbia University. She has participated in various NRC committees including Plasma Science 2010 and the Heliophysics Performance Assessment from 2008 to 2009. She was a core group editor for the ISSI monograph on Auroral Plasma Physics (2002). Her main research interests include basic plasma physics (plasma sheaths, particle acceleration, thermal plasmas), auroral plasma processes, and low-resource ionospheric measurement including sounding rocket studies of the auroral ionosphere, informed by lab plasma studies of thermal plasmas.

Rajesh Maingi is the Division Head of Boundary Physics and PFC Research at the Princeton Plasma Physics Laboratory (PPPL), and also holds the appointment of Adjunct Professor of Nuclear Engineering at the University of Tennessee - Knoxville. From 1997-2012, he worked on the research staff at Oak Ridge National Laboratory (ORNL), culminating with the title of Distinguished R&D Staff. From 1992-1997, he worked on a postdoctoral fellowship, under the supervision of ORNL staff. He received his Ph.D. in Nuclear Engineering in 1992 from North Carolina State University. Dr. Maingi has conducted research on many fusion devices throughout the world, including NSTX, DIII-D, Alcator C-Mod, MAST, ASDEX-Upgrade, and EAST. He is

the first author on more than 30 refereed journal articles, and is a contributing author to more than 700 articles. He received the Distinguished Research Fellow award at PPPL in 2014, and he was inducted as a Fellow of the American Physical Society in 2009. His recent committee service includes Chairman of the 2015 FES Workshop on Plasma-Materials Interactions, Chairman of the International Tokamak Physics Activity (ITPA) Pedestal and Edge Physics Topical Group, member of the ITPA Coordinating Committee (2013-present), member of the International Advisory Committee for the H-mode Workshop (2015-present), participation in the APS Distinguished Lecturer in Plasma Physics Program (2013-2015), and as the technical Program Co-chair, TOFE meeting, Anaheim CA, 2014. His present research interests include H-mode pedestal physics, scrape-off layer and divertor physics, and plasma-materials interactions in fusion devices.

George H. "Hutch" Neilson is a Principal Research Physicist and Head of the Advanced Projects Department at Princeton Plasma Physics Laboratory. Neilson led the founding, with ORNL and LANL, of the U.S. collaboration with Germany's Wendelstein 7-X stellarator program. The collaboration has produced several significant U.S. contributions to W7-X construction, and has begun the transition to U.S. partnership in the W7-X research program. Neilson led a PPPL study of net-electricity generating options for a next-step fusion nuclear facility (FNF), evaluating the pros and cons of different magnetic configurations, and comparing the benefits and risks with other FNF options. Since 2011, he has led the formation of a new international DEMO workshop series, continuing now under IAEA auspices, to promote international information sharing and coordination of DEMO oriented research and development. He managed the NCSX project from inception through fabrication of the major components, and before that served as U.S. team leader for the conceptual design of KSTAR in collaboration with Korea. Neilson is a Fellow of the APS and a Senior Member of the IEEE. He served as an elected member of the IEEE Nuclear and Plasma Sciences Society's Administrative Committee, and was Technical Program Chair for the 2013 IEEE Symposium on Fusion Engineering (SOFE). He has worked in the fusion program since 1974, starting at ORNL and joining the PPPL staff in 1996. He received his Ph.D. in Physics from the University of Tennessee, Knoxville in 1979, and received M.S. and B.S. degrees from the Massachusetts Institute of Technology in 1973.

Gertrude (Gert) Patello is a senior project manager in the Nuclear Sciences Division of the Energy and Environment Directorate at the Pacific Northwest National Laboratory (PNNL). Dr. Patello has a relationship management role for the Nuclear Physics sector at PNNL that includes providing oversight for the projects funded by the DOE Office of Nuclear Physics Isotope Program and interfacing with DOE program staff. She also manages four projects within the PNNL Isotope Program and is responsible for their programmatic execution. Dr. Patello has participated on two programmatic review panels for the DOE Isotope Program. She has had various line management positions at PNNL over the past 12 years, managing radiochemical and material research staff in PNNL's category 2 nuclear facility. Dr. Patello is PNNL's representative on the board of the Actinide Separations Conference and is currently the past chair. As the chair in 2013, she was responsible for the organization and execution of the annual Actinide Separations Conference.

Dr. Patello received her B.S in Ceramic Engineering and her PhD in Ceramics from Alfred University in Alfred, New York in 1988 and 1993 respectively.

Thomas Sunn Pedersen was born in Roskilde, Denmark in 1970 and studied applied physics engineering at the Technical University of Denmark (DTU) in Lyngby. He graduated with an M. Sc. degree in 1995 having completed his Master's thesis at Risø National Laboratory in computational plasma physics and spent a semester at JET in England working on the LIDAR Thomson scattering system. He then went to MIT (Cambridge, MA, USA) and graduated with a PhD in plasma physics in 2000. His thesis work focused on soft x-ray measurements and modelling of impurities in the Alcator C-Mod tokamak. After a brief postdoctoral position on the Levitated Dipole Experiment, he started as an assistant professor in the Department of Applied Physics and Applied Mathematics at Columbia University in New York, also in 2000. At Columbia, he designed and built a remarkably-simple stellarator, the Columbia Non-neutral Torus, which he used to study pure electron plasmas and partially-neutralized plasmas. He also taught a number of courses, including plasma physics and quantum mechanics. In 2005, he was promoted to associate professor, and in 2007 he received tenure. In 2011, he relocated to Germany and started as Director of the Stellarator Edge and Divertor Physics Division at the Greifswald branch of the Max-Planck Institute of Plasma Physics.

Juergen Rapp is a Senior R&D Staff member at the Oak Ridge National Laboratory in the Fusion and Materials for Nuclear Systems Division where he has been employed since August 2011 leading the program for the advanced plasma generator MPEX. He received his MS and PhD in Electrical Engineering from the University of Wuppertal, Germany in 1991 and 1995 respectively. He started his early career on the TEXTOR tokamak at the Research Center in Juelich, Germany (1995 to 1999). From 1999 to 2007 he worked mainly at the Joint European Torus (JET) at Culham, U.K. in various activities: Scientific Coordinator of several experiments, as Session Leader of more than 70 experiments, as Physics Officer to the JET enhancement program and as Head of Operations in the European Fusion Development Agreement (EFDA)-JET Close Support Unit. As Head of the Operations Department he also supervised the Fusion Technology Work Program at JET. From 2007 to 2011 he was Program Leader and Head of the Plasma Surface Interactions Division in the FOM Institute for Plasma Physics in Nieuwegein, The Netherlands. Within this PSI Division the Magnum-PSI facility was constructed and its forerunner experiment Pilot-PSI was operated. Magnum-PSI is the world's first linear plasma generator able to meet all the relevant plasma conditions in the ITER divertor. In 2011 he was appointed as Part-time Professor at the Technical University of Eindhoven, The Netherlands. His scientific expertise covers investigations on high-Z material (W, Mo) sources and transport in TEXTOR, the physics of density limits in TEXTOR and JET, power exhaust and divertor physics at JET as well as mitigation of steady-state and transient heat loads by impurity seeding at JET and ASDEX Upgrade. His first demonstration of an integrated ITER operation scenario at JET was acknowledged as one of the most important results of JET in the year 2003. He initiated the design of the carbon Mk-IIHD divertor on JET and was involved in the design of the solid tungsten divertor in JET. Dr. Rapp has many years of management experience of which 5 years were in senior management at world leading fusion facilities (JET, Magnum-PSI). He

served on various committees. Presently he serves on the DIII-D Program Advisory Committee. He served on the ITER Science and Technology Advisory Committee and on the FESAC subcommittee on Facilities for the Future of Science. Dr. Rapp was also member of the EURATOM Fusion Science and Technology Advisory Committee and chairman of the working group for the new programme of the Trilateral Euregio Cluster (a multi-national cluster between the Forschungszentrum Juelich, Germany, the Ecole Royale Militaire, Brussels, Belgium and the FOM Institute for Plasma Physics, Nieuwegein, The Netherlands). He was EU member of the International Tokamak Physics Activity divertor/scrape-off-layer group as well as Deputy Leader of the TEC Topic Group on Plasma Wall Interaction. Dr. Rapp authored and co-authored more than 320 publications, of which more than 125 were in peer-reviewed journals.

Don Rej is currently Program Director at Los Alamos National Laboratory (LANL) for research LANL conducts for the DOE Office of Science. Prior to his current assignment, he has been a Project Director on large DOE scientific construction projects such as the National Compact Stellarator Experiment at the Princeton Plasma Physics Laboratory, and the Los Alamos contribution to the construction of the Spallation Neutron Source at Oak Ridge National Laboratory. His other leadership positions included Program Director for LANL Science & Technology Base Programs, and the Deputy Director and Acting Director of the LANL Physics Division. Dr. Rej received his Ph.D. in Applied Physics from Cornell University. His research career has included work in magnetic fusion, including the design, construction, operation, diagnostic measurements, and theoretical analysis of compact torus plasmas. Dr. Rej also built and managed an interdisciplinary program in advance materials synthesis with plasma and particle beam technologies. He has co-authored over 70 peer-reviewed publications, 3 book chapters, and holds 2 patents. Dr. Rej is the recipient of a LANL Distinguished Performance Award, the Federal Laboratory Consortia Award for Excellence in Technology Transfer, an R&D 100 Award, and a DOE Defense Programs Award of Excellence.

Susana Reyes is a nuclear engineer at Lawrence Livermore National Laboratory (LLNL) in California with over 17 years of experience in international fusion projects. She is currently leading LLNL's fusion energy science efforts for safety and tritium research, as well as supporting the National Ignition Facility (NIF) Directorate in various Project Engineering and Strategic Planning activities. Dr. Reyes earned an M.Sci. in Power Engineering from the Polytechnic University of Madrid in 1998, and a Ph.D. in Nuclear Engineering from the UNED University in Madrid in 2001. Dr. Reyes joined LLNL's Fusion Energy Program in 1999 to work on the safety analysis of inertial fusion energy power plant designs. Since then, she has participated in the design, construction, and operation of a variety of fusion research projects, including the NIF in LLNL, and the ITER Organization in Cadarache (France), where she supported the project through the coordination of safety analyses and associated documentation in preparation for ITER licensing. Her current interests are focused on the safety and environmental aspects of fusion and the fuel cycle challenges for future fusion power plants. Dr. Reyes is the recipient of the 2012 American Nuclear Society (ANS) Mary Jane Oestmann Professional Women's Achievement Award, and the 2015 Fusion Power Associates Excellence

in Fusion Engineering Award, for her contributions to the safety and environmental aspects of both magnetic fusion energy (MFE) and inertial fusion energy (IFE) facilities. She is also recognized for her roles on the National Academy's panel on Prospects for Inertial Confinement Fusion Energy Systems, and as recent Chair of the American Nuclear Society's Fusion Energy Division.

Linda E. Sugiyama is a Principal Research Scientist at the Massachusetts Institute of Technology, in the Laboratory for Nuclear Physics, part of the Physics department. She has been a founding member of two of the current DOE SciDAC fusion centers, the Center for Magnetohydrodynamic Modeling (CEMM) and the Edge Plasma Simulation project (EPSi) and was also part of the early SciDAC CSWIM project. She received a B.S. in Applied Mathematics, Engineering, Physics (AMEP program) from the University of Wisconsin-Madison in 1975 and a Ph.D. in Applied Mathematics from M.I.T. in 1980, where her final work was in plasma theory. She has been an early developer of numerical simulation for magnetic plasmas, covering a broad range of applications and different types of plasma models and codes. Her main interests are the nonlinear prediction of plasma instabilities in fully electromagnetic, magnetically confined plasmas and the development of general plasma models capable of such prediction, including the combination of fluid (MHD) and particle processes. She pioneered the two-fluid or "extended MHD" model for nonlinear simulation that motivated the creation of the SciDAC CEMM center and is now widely used around the world. She became a Fellow of the American Physical Society (APS) Division of Plasma Physics (DPP) in 2005. She has served on the International Sherwood Fusion Theory Executive Committee, including as Chair (2002-2003), and on the APS-DPP Executive Committee (2007-2009) and the IEEE Plasma Science Executive committee, as well as a number of other APS committees and meeting program committees. She was Chair of the APS-DPP Committee on Women in Physics and a member of the APS-DPP Program Committee in 2010. She has participated in a number of DOE and NSF proposal review panels. She serves (2010-present) on the NERSC Users Group Executive Committee (NUGEX).

Amy Wendt is a Professor of Electrical and Computer Engineering at the University of Wisconsin-Madison, where she has been a faculty member since 1990. Her research focus is ionized gas discharges for technological applications. Understanding the behavior of low-temperature plasmas, how they interact with materials substrates, and implications for process and system design are the primary goals of her research. Her research group conducts experimental studies with activities including diagnostic development, plasma source design, and process development. She was also principal investigator for "Society's Grand Challenges for Engineering as a Context for Middle School STEM Instruction," an NSF-supported research effort to develop a core math and science curriculum with the goal of increasing interest and awareness of engineering, especially among girls and other under-represented groups. She is the co-Director of the Women in Science and Engineering Leadership Institute at UW-Madison, and received the 2015 College of Engineering Equity and Diversity Award. She served on the National Research Council Plasma Science Committee from 2007 to 2014, and as chair of the Gaseous Electronics Conference Executive Committee from 2012 to 2014. She is a former co-

Chair of the UW ECE Department, and is currently a member of the UW-Madison University Committee, the faculty governance committee that guides the development and implementation of institution policies and practices, and will be the Chair for the 2016-17 academic year. Professor Wendt received MS and Ph.D. degrees in Electrical Engineering and Computer Science from UC Berkeley and a B.S. in Engineering from Caltech.

Brian Wirth is Governor's Chair Professor of Computational Nuclear Engineering in the Department of Nuclear Engineering at the University of Tennessee, Knoxville and Oak Ridge National Laboratory. Brian received a BS in nuclear engineering from the Georgia Institute of Technology in 1992 and a PhD in mechanical engineering from the University of California, Santa Barbara in 1998, where he was a Department of Energy Nuclear Engineering Graduate Fellow. Dr. Wirth spent four years in the High Performance Computational Materials Science Group at Lawrence Livermore National Laboratory, where he led efforts to investigate the microstructural stability of structural materials in nuclear environments. In 2002 he joined the faculty at the University of California, Berkeley as an Assistant Professor of Nuclear Engineering and was promoted to Associate Professor in 2006. He has received a number of awards, including the 2011 Hochreiter Distinguished Lecture in the Department of Mechanical and Nuclear Engineering at the Pennsylvania State University, the 2007 Fusion Power Associates David J. Rose Excellence in Fusion Engineering Award, and the 2003 Presidential Early Career Award for Scientists and Engineers (PECASE). He has organized numerous conferences and symposia for the American Nuclear Society, the Minerals, Materials and Mining (TMS) Society, and the Materials Research Society (MRS), including as the General Chair for the 21st Topical Meeting on the Technology of Fusion Energy (TOFE) in November 2014. His research investigates the performance of nuclear fuels and structural materials in nuclear environments, ultimately seeking to improve predictions about the longevity of nuclear reactor components and to develop high-performance, radiation resistant materials for advanced nuclear fission and fusion energy power plants. His research approach involves an integrated and multi-disciplinary combination of computational multiscale materials modeling with experiments to characterize materials structure and properties from the nanometer to component length scale.