Planning Committee Members

**Fran Berman**  
VP for Research and Professor of Computer Science, Rensselaer Polytechnic Institute

**Thomas Furlani**  
Director, Center for Computational Research and Interim Associate VP for Information Technology, University at Buffalo

**Matthew Jones**  
Associate Director, Center for Computational Research, University at Buffalo

**Kirk Jordan**  
Emerging Solutions Executive, Computational Science Center, IBM T.J. Watson Research

**Michael Henesey**  
VP Business Development, IBM Corporate Headquarters

**John E. Kolb (Chair)**  
VP for Information Services and Technology and CIO, Rensselaer Polytechnic Institute

**Timothy Lance**  
President and CEO, NYSERNet, Inc.

**Reinhold Mann**  
Acting Laboratory Director, Brookhaven National Laboratory

**Michael McGuigan**  
Interim Director, Computational Science Center, Brookhaven National Laboratory

**James Myers**  
Director, Computational Center for Nanotechnology Innovations, Rensselaer Polytechnic Institute

**Michael Ridley**  
Director, NYS HPC Program, Empire State Development Corporation

**Mark Shephard**  
Johnson Professor of Engineering and Director of the Scientific Computation Research Center, Rensselaer Polytechnic Institute
Agenda

7:00 a.m. – 8:00 a.m. | Continental Breakfast
   Location: Experimental Media and Performing Arts Center (EMPAC), Evelyn’s Café
   Panelist’s Breakfast: EMPAC, Green Room, Level 6

8:00 a.m. – 8:05 a.m. | Welcome and Introduction of President Jackson by John E. Kolb, VP for Information Services and Technology and CIO, Rensselaer Polytechnic Institute
   Location: EMPAC, Concert Hall

8:05 a.m. – 8:20 a.m. | Introductory Remarks by President Shirley Ann Jackson
   Location: EMPAC, Concert Hall

8:20 a.m. – 9:30 a.m. | Panel on Competitiveness
   Location: EMPAC, Concert Hall
   Moderator: Dr. Shirley Ann Jackson, President, Rensselaer Polytechnic Institute

8:20 a.m. – 8:50 a.m. | Panel on Competitiveness | Introduction and Panelist Remarks
   • The Honorable Deborah L. Wince-Smith, President & CEO, Council on Competitiveness
   • Dr. John F. McKibben, Technology Section Head, Procter and Gamble
   • Dr. Walter M. Polansky, Senior Advisor to the Associate Director of Advanced Scientific Computing Research, U.S. Department of Energy
   • Dr. Thomas Furlani, Interim CIO and Director, University at Buffalo’s Center for Computational Research

8:50 a.m. – 9:15 a.m. | Panel on Competitiveness | Discussion

9:30 a.m. – 10:00 a.m. | BREAK
   Location: EMPAC, Evelyn’s Café

10:00 a.m. – 11:30 a.m. | Panel on Future Opportunities
   Location: EMPAC, Concert Hall
   Moderator: Dr. Shirley Ann Jackson, President, Rensselaer Polytechnic Institute

10:00 a.m. – 10:10 a.m. | Panel on Future Opportunities | Introductions
   • Dr. Robert F. Brammer, Vice President for Advanced Technology at Northrup Grumman
   • Mr. Ed Reinfurt, Director, Division of Science, Technology and Innovation Empire State Development Corporation
   • Mr. Stanley Young, Chief Executive Officer, NYSE Technologies

10:10 a.m. – 10:30 a.m. | Introductory remarks:
   Dr. John E. Kelly, III, Senior Vice President and Director of IBM Research

10:30 a.m. – 11:30 a.m. | Panel on Future Opportunities | Discussion

11:30 a.m. – 11:45 a.m. | Closing Remarks by John E. Kolb
   Location: EMPAC, Concert Hall
President of Rensselaer Polytechnic Institute, in Troy, New York and Hartford, CT, the Honorable Shirley Ann Jackson, Ph.D. has held senior leadership positions in government, industry, research, and academe. A theoretical physicist, she was chairman of the U.S. Nuclear Regulatory Commission (1995-1999). She serves on the President's Council of Advisors on Science and Technology and the International Security Advisory Board to the United States Department of State.

Her research and policy focus includes energy security and the national capacity for innovation, including addressing the "Quiet Crisis" of looming gaps in the science, technology, and engineering workforce and reduced support for basic research.

President of Rensselaer since 1999, Dr. Jackson has led an extraordinary transformation of the institute with an ambitious strategic effort known as The Rensselaer Plan. Under her leadership, new faculty members have been hired, research awards have doubled and scholarships have increased. There have been innovations in curriculum, expansion of undergraduate research, and new award winning student life initiatives. Nearly $1 billion has been invested in The Rensselaer Plan, including more than $715 million in new construction, renovations, new equipment, technology and infrastructure. In 2004, President Jackson launched a $1 billion Renaissance at Rensselaer capital campaign. The campaign closed in 2009, having surpassed the ambitious goal of $1.4 billion in gifts and gift commitments.

Dr. Jackson is a member of the National Academy of Engineering, the American Philosophical Society, and a Fellow of the American Academy of Arts and Sciences, the American Physical Society, and the American Association for the Advancement of Science (AAAS). She is a Regent of the Smithsonian Institution, and a member of the Board of the Council on Foreign Relations and The Brookings Institution. She is past President (2004) and Chairman of the Board (2005) of the AAAS. She is a vice-chair of the Council on Competitiveness and co-chaired its Energy Security, Innovation and Sustainability initiative. She is a member of the Board of Directors of global companies including IBM and FedEx.

Calling her a “national treasure,” the National Science Board selected her as its 2007 Vannevar Bush Award recipient for “a lifetime of achievements in scientific research, education, and senior statesman-like contributions to public policy.” Dr. Jackson holds a S.B. in physics and a Ph.D. in theoretical elementary particle physics, both from M.I.T.
John E. Kolb, P.E.
Vice President for Information Services and Technology
and Chief Information Officer

John E. Kolb, ’79 received his bachelor’s and master’s degrees in electrical engineering from Rensselaer. A Professional Engineer, licensed in New York State. Kolb’s Rensselaer career spans 30 years. Currently, VP for Information Services and Technology, and CIO. He previously served as Dean of Computing and Information Services, Assistant Dean, Engineering; Head, Core Engineering, and Director of Engineering Computing Services. Kolb has taught courses in Engineering, Science, Management, and IT. He is Vice Chairman, NYSERNet.org Board of Directors; Treasurer, NYSERNet.net Board of Directors, Chair of the Research Advisory Council (RAC) and board member for Internet2, a past member, NYS Universal Broadband Council (Vice Chair, Network Infrastructure Access Action Team); Co-Chair, University of the State of NY Technology Policy and Practices Council; member, Center for Economic Development Digital Connections Council, serves various EDUCAUSE Committees; member, American Society for Engineering Education, and the Institute of Electrical and Electronics Engineers. A former Chair of the CIO Council of The Business-Higher Education Roundtable of the Capital Region, and Board Member, the Children’s Museum of Science and Technology. Kolb has presented at numerous higher education and technology conferences. He was Co-PI, the Boeing Outstanding Engineering Educator Award and has been instrumental in attracting and implementing numerous technology grants at Rensselaer including the $100M Computational Center for Nanotechnology Innovations (CCNI). He is also the lead PI for the High Performance Computing Consortium (HPCC).

The Honorable Deborah L. Wince-Smith
President & CEO, Council on Competitiveness

Deborah L. Wince-Smith is the president & CEO of the Council on Competitiveness, the only place where CEOs, labor leaders and university presidents are working together to ensure that Americans prosper in the global economy. Founded in 1986, this unique business-labor-academia coalition recommends actionable public policy solutions to make America more competitive in the global marketplace.

Ms. Wince-Smith is internationally renowned as a leading voice on competitiveness, innovation strategy, science and technology, and international economic policy. She is frequently called upon to testify in front of the U.S. Congress on these issues and appears regularly on national television networks including Bloomberg, CNBC and Fox News. Since becoming president of the Council on Competitiveness, she has helped recharge the national debate on competitiveness, innovation and resilience.
As president of the Council on Competitiveness, Ms. Wince-Smith spearheaded the groundbreaking 2004 National Innovation Initiative (NII), which played a pivotal role in creating a reinvigorated U.S. competitiveness movement. The NII shaped the bipartisan America COMPETES Act, created state and regional innovation initiatives, and brought a global focus to innovation. Most recently Ms. Wince-Smith led the Council’s 2009 National Energy Summit & International Dialogue and the 2nd US-Brazil Innovation Summit.

Ms. Wince-Smith serves on the board of directors of Fortune 500 companies and leading national and international organizations, as well as U.S. government advisory committees. She is a member of the board of directors of NASDAQ-OMX, Inc., and serves on the Audit, Compensation and Finance Committees. Ms. Wince-Smith is also a Senate-confirmed member of the Oversight Board of the Internal Revenue Service, responsible for administering the Nation’s tax laws. She recently chaired the Secretary of Commerce’s Advisory Committee on Strengthening America’s Communities and currently serves on the U.S. Department of State’s Advisory Committee on International Economic Policy.

Ms. Wince-Smith is a member of the University of Chicago’s Board of Governors for Argonne National Laboratory and serves on the board of the Albert Shanker Institute, the Lincoln Center Institute’s Imagination Conversation, the Energy Institute at the University of Texas at Austin, the U.S. Naval Academy Foundation and the Smithsonian National Board. Ms. Wince-Smith is a vice-chairman of the World Economic Forum’s Global Council on Global Competitiveness and is a member of the Science & Technology in Society Forum Council.

Ms. Wince-Smith is the president of the newly formed Global Federation of Competitiveness Councils, whose creation she led. This is the first global network devoted exclusively to the exchange of knowledge and practice related to competitiveness policies and strategies; and, the first global, public-private mechanism to promote global economic growth through collaboration in innovation.

During her 17-year tenure in the federal government, Ms. Wince-Smith held leading positions in the areas of science, technology policy and international economic affairs. She began her career as a program director for the National Science Foundation, where she managed U.S. research programs with Eastern European countries and U.S. universities. Most notably, she served as the nation’s first assistant secretary of commerce for technology policy in the administration of George H.W. Bush, overseeing federal technology transfer policy, implementation of the Bayh-Dole Act, and the White House National Technology Initiative. She was also the first assistant director of international affairs and competitiveness in the White House Office of Science and Technology Policy and the architect of the landmark Head of Government Science and Technology Agreement with Japan.

Ms. Wince-Smith developed President Reagan’s 1988 Competitiveness Initiative, and led the implementation of executive orders and new laws that transformed federal technology transfer policy for U.S. national laboratories and American industry. Following her government tenure, Ms. Wince-Smith became active in governance of various national scientific laboratories and provided strategic counsel to several FORTUNE 100 companies.

Ms. Wince-Smith graduated magna cum laude from Vassar College with a Bachelor of Arts degree. She earned her master’s degree in classical archaeology from King’s College at the University of Cambridge. In 2006, she received an Honorary Doctor of Humanities degree from Michigan State University.
Dr. John F. McKibben  
Technology Section Head, Procter and Gamble

Dr. John F. McKibben leads the Modeling and Simulation efforts in Procter & Gamble’s (P&G) Family Care Business Unit. His group supports product development, process development, engineering and manufacturing, with disciplines including fluid mechanics, structural mechanics, paper physics, process simulation, reliability engineering, and productions system modeling.

Prior to his work in Family Care, he held a similar position in the Fabric and Home Care Business Unit. This global role included significant efforts in building modeling capabilities in Cincinnati, OH; Brussels, Belgium and Newcastle, UK research centers.

Dr. McKibben was one of the pioneers in P&G’s Computational Fluid Dynamics (CFD) efforts, building the corporate CFD organization and training many of its early CFD practitioners. While working in Corporate Engineering he was a lead contributor to P&G’s highly successful collaboration with Los Alamos National Laboratory to develop turbulent multiphase flow simulations of diaper core production processes. He also has fostered extensive external collaborations with organizations including Sandia National Laboratory, North Carolina State University, Miami University, and The University of Cincinnati and Rensselaer Polytechnic Institute.

Dr. McKibben received a Ph.D. and M.S. in Paper Science and Technology (now part of Georgia Tech). He also holds a B.S. in Chemical Engineering from Oregon State University and a B.S. in Chemistry from Southern Oregon University. He lives in Cincinnati with his wife and two sons and enjoys church volunteer work and refereeing soccer.

Dr. Walt Polansky ’70  
Senior Advisor to the Associate Director of Advanced Scientific Computing Research, U.S. Department of Energy (DOE)

Dr. Polansky is a Senior Advisor to the Associate Director for Advanced Scientific Computing Research (ASCR) in the Office of Science. The mission of the ASCR program is to underpin DOE’s world leadership in scientific computation by supporting research in applied mathematics, computer science and high-performance networks and providing the high-performance computational and networking resources that are required for world leadership in science.

In 2006, Dr. Polansky lead a team of program managers from the Office of Science, the National science Foundation and the NNSA that recompeted the Scientific Discovery through Advanced Computing (SciDAC) program, resulted in a portfolio of research partnerships with an annual budget of nearly $67,000,000. The goal of SciDAC is to fully realize the potential of petascale computing for advancing scientific discovery. Earlier this year, Walt restructured the SciDAC program to strengthen the computational collaborations by organizing the SciDAC Institutes under a common set of management guidelines. As a result, the SciDAC Institutes, as an ensemble, can focus on the SciDAC goal while preserving flexibility and agility within each Institute to meet computational challenges posed by all partnering organizations. Three SciDAC Institutes were initiated two months ago and Funding Opportunity Announcements were issued requesting proposals for all SciDAC computational partnerships.
Dr. Polansky also served as the Acting Senior Information Management Executive for the Office of Science, and was responsible for reporting information technology, in accordance with OMB Circular A-11, the Clinger-Cohen Act and the Federal Information Security Management Act. The Office of Science information technology portfolio is comprised of over 275 investments, ranging in complexity from desktop systems through Leadership Computing resources, and at the time, was valued at $335,000,000.

Dr. Polansky has been responsible for the Department of Energy’s SBIR and STTR programs and served as the Director of the Laboratory Technology Research Division, a research program that provided the initial pathway, through research collaborations DOE laboratories and private sector partners, for linking new research results to an energy application with a significant payoff. Just recently, Walt led an effort within the Office of Advanced Scientific Computing Research to strategically re-orient its SBIR and STTR topics to develop and commercialize ASCR-developed scientific software for use by the broad computational community, including industry.

Dr. Polansky received his Ph.D./M.S. in Physics from the University of Cincinnati in 1975 and earned a B.S. in Physics from Rensselaer Polytechnic Institute in 1970.

Dr. Thomas Furlani
Interim CIO and Director
University at Buffalo’s Center for Computational Research

Dr. Furlani is Interim Associate Vice President for Information Technology (CIO) and Director of the University at Buffalo’s Center for Computational Research (CCR). A National Science Foundation Pre-doctoral Fellow, Dr. Furlani has more than 25 years experience in research computing and visualization, including scientific computing, computational chemistry, and grid computing. One of the primary focuses of CCR is to support the recently established New York State Center of Excellence in Bioinformatics & Life Sciences, which includes the University at Buffalo, the Roswell Park Cancer Institute, and the Hauptman-Woodward Medical Research Institute. Dr. Furlani has been principal investigator on grants from the National Science Foundation, the National Institutes of Health, the Environmental Protection Agency, the New York State Energy Research and Development Authority, and the Federal Highway Administration.
Dr. John E. Kelly, III is IBM senior vice president and director of Research. In this position he directs the worldwide operations of IBM Research, with approximately 3,000 technical employees at nine laboratories, in seven countries around the world, and helps guide IBM’s overall technical strategy.

Dr. Kelly’s top priority as head of IBM Research is to stimulate innovation in key areas of information technology, and quickly bring those innovations into the marketplace to sustain and grow IBM’s existing business, to create the new businesses of IBM’s future, and to apply these innovations to help our clients succeed.

Dr. Kelly also leads IBM’s worldwide intellectual property efforts. IBM has led the world in U.S. patents for 18 consecutive years, generating nearly 6,000 patents in 2010 and delivering more than $1B per year in income from its intellectual property.

Prior to beginning his current assignment in July of 2007, Dr. Kelly was senior vice president of Technology and Intellectual Property, responsible for IBM’s technical and innovation strategies.

Dr. Kelly joined IBM in 1980. Between 1980 and 1990, he held numerous management and technical positions related to the development and manufacturing of IBM’s advanced semiconductor technologies. In 1990, he was named director of IBM’s Semiconductor Research and Development Center. Between 1994 and 2000, Dr. Kelly held several VP and GM positions across IBM’s businesses. In 2000, Dr. Kelly was named senior vice president and group executive for IBM’s Technology Group, where he was responsible for developing, manufacturing and marketing IBM’s microelectronics and storage technologies, products and services.

Dr. Kelly received a Bachelor of Science degree in physics from Union College in 1976. He received a Master of Science degree in physics from the Rensselaer Polytechnic Institute in 1978 and his Doctorate in materials engineering from RPI in 1980. In 2004, he received an Honorary Doctorate of Science from The Graduate School at Union College.

Dr. Kelly is on the Board of Governors of The IBM Academy of Technology; a board member and former chairman of the Semiconductor Industry Association; a Fellow of the Institute of Electrical and Electronics Engineers, and on The Board of Trustees of Union College.

Dr. Kelly has received numerous technical and business leadership awards, including the Semiconductor Industry’s highest honor, the Robert E. Noyce Award.
Dr. Robert F. Brammer  
President and CEO, Brammer Technology, LLC

Dr. Robert F. Brammer is the President and CEO of Brammer Technology, LLC, a consultancy focusing on advanced information technology, environment and climate, and security. He recently retired as vice president for Advanced Technology and chief technology officer (CTO) for Northrop Grumman’s Information Systems (IS) sector. In this role, he was responsible for the overall technology strategy and Independent Research and Development (IRAD) programs, technology and research partnerships, technical talent development and intellectual property management.

Dr. Brammer has a bachelor’s degree in mathematics from the University of Michigan, and master’s and doctoral degrees in mathematics from the University of Maryland. He is a member of Phi Beta Kappa and Phi Kappa Phi and is a Woodrow Wilson Fellow. He received achievement awards for work on the Apollo program and for principal investigator research on NASA and NOAA satellite remote-sensing programs. He is a Fellow of both the Society of Photo-Optical Instrumentation Engineers and the American Meteorological Society. He is also a senior member or member of several other professional societies, including the IEEE, MAA, SIAM, SMPTE, and AGU. Dr. Brammer has published numerous research papers in the journals of these societies.

He has served on advisory boards for the Department of Defense, the National Research Council, the Naval Studies Board, the National Science Foundation, the University Corporation for Atmospheric Research, and NASA. He is also a member of the External Relations Council for the Internet2 Consortium, the Dean’s Council for the College of Engineering at Carnegie Mellon University, and the Board of Visitors for the College of Computer, Mathematical, and Natural Sciences at the University of Maryland. Security Magazine recently named Dr. Brammer as one of the 25 most influential people in the security industry, and ExecutiveBiz named him as one of the top ten CTOs in the Greater Washington DC area.

Ed Reinfurt  
Director, Division of Science, Technology and Innovation  
Empire State Development Corporation

Edward Reinfurt, formerly the Executive Director of the New York State Foundation for Science, Technology, and Innovation (NYSTAR), currently serves as Director of the Division of Science, Technology and Innovation within the Empire State Development Corporation (ESDC).

Uniting the missions and capabilities of NYSTAR and ESDC recognizes that innovation and technology are an integral part of the state’s economic development efforts.

The 2011-2012 state budget for ESDC continued funding for the state’s five Centers of Excellence, fifteen Centers for Advanced Technology and ten Regional Technology Development Corporations (RTDC’s).

Prior to his appointment at NYSTAR, Mr. Reinfurt served as Vice President of the Business Council of New York State, Inc. The Business Council represented more than 3,000 member businesses, chambers of commerce and professional and trade associations.

Mr. Reinfurt is a graduate of the University at Albany of the State University of New York.
Stanley Young is Chief Executive Officer for NYSE Technologies, NYSE Euronext’s commercial
technology business.

NYSE Euronext (NYSE/New York and Euronext/Paris: NYX) operates the world’s largest and most
liquid exchange group and offers the most diverse array of financial products and services. NYSE
Euronext, which brings together six cash equities exchanges in five countries and six derivatives
exchanges, is a world leader for listings, trading in cash equities, equity and interest rate deriv-
atives, bonds and the distribution of market data.

A division of NYSE Euronext (NYX), NYSE Technologies provides comprehensive transaction, data
and infrastructure services and managed solutions for buy-side, sell-side and exchange communi-
ties that require next-generation performance and expertise for mission critical and value-added
client services.

With the acquisition of NYFIX in November 2009, NYSE Technologies now provides a vital and
unique connectivity link between the buy-side and sell-side at the point of origin in the trade
flow process. This includes more than 450 buy-side institutions and more than 600 sell-side
institutions, and connections to exchanges and other electronic trade execution venues around
the world.

From 11th June 2007, Mr. Young was the Chief Executive of AEMS, the leading global provider
of technology solutions for exchanges, clearing houses, banks, brokers, and intermediaries, until
its incorporation into NYSE Euronext on 6th August 2008. As a result of this transaction, NYSE
Euronext acquired ownership of the NSC cash trading and Liffe CONNECT® derivatives trading
platform technology and all of the management and development services surrounding these
platforms as well as AEMS’s third-party exchange technology business. Mr. Young joined AEMS
from Hewlett-Packard where he was Head of the FSI Consulting & Integration business in North
America. Prior to this he was Worldwide Director of Financial Markets.

Mr. Young has held senior partner positions in Capco and Accenture with accountability for the
Global Capital Markets and Market Infrastructure businesses. He also spent more than 11 years
at the London Stock Exchange as Director for New Strategy Development responsible for the
implementation of the Exchange’s trading and trade management systems.