

SCIENTIFIC MANAGEMENT REVIEW BOARD

MEMBER BIOSKETCHES – July 7, 2014

Norman R. Augustine (SMRB Chair) served as president of Lockheed Martin Corporation upon the formation of that company in 1995 and became CEO later that year. He retired as chairman and CEO of Lockheed Martin in August 1997, at which time he became a lecturer with the rank of professor on the faculty of Princeton University, where he served until July 1999.

Mr. Augustine was chairman and principal officer of the American Red Cross for nine years, chairman of the National Academy of Engineering, president and chairman of the Association of the United States Army, chairman of the Aerospace Industries Association, and chairman of the Defense Science Board. He is a former president of the American Institute of Aeronautics and Astronautics and the Boy Scouts of America. He is a current or former member of the Board of Directors of ConocoPhillips, Black & Decker, Proctor & Gamble, and Lockheed Martin, and was a member of the Board of Trustees of Colonial Williamsburg. He is a Regent of the University System of Maryland, Trustee Emeritus of Johns Hopkins, and a former member of the Board of Trustees of Princeton and the Massachusetts Institute of Technology (MIT). He served as a member of the NIH organizational study, as co-chair of the NIH Blue Ribbon Panel on Conflicts of Interest, as co-chair of the National Academies Traumatic Brain Injury Workshop, and as chair of the Scoop Jackson Foundation for Military Medicine. He holds 23 honorary degrees and was awarded the National Medal of Technology by the President of the United States.

Nancy Andrews, M.D., nonvoting, ad hoc, has been vice chancellor for academic affairs and dean of the Duke University School of Medicine since October 2007. She is also a professor of pediatrics and pharmacology & cancer biology.

Dr. Andrews received her B.S. and M.S. degrees in molecular biophysics and biochemistry from Yale University. As a student in the Harvard-MIT M.D.-Ph.D. Program, she earned her Ph.D. from MIT along with her M.D. from Harvard Medical School. She completed her residency and fellowship in pediatrics and hematology/oncology at Children's Hospital Boston and the Dana-Farber Cancer Institute.

Dr. Andrews spent her entire professional career at Harvard before she moved to Duke. She was the George Richards Minot Professor of Pediatrics, Senior Associate in Medicine at Children's Hospital, and a distinguished physician of the Dana-Farber Cancer Institute. Dr. Andrews was director of the Harvard-MIT M.D.-Ph.D. Program from 1999 to 2003 and dean for basic sciences and graduate studies at Harvard Medical School from 2003 to 2007.

Dr. Andrews was also an investigator at the Howard Hughes Medical Institute for 13 years. She maintains an NIH-funded research laboratory that studies mouse models of human diseases. Her laboratory's contributions include discovery of the iron transporter DMT1, establishing the role

of the transferrin receptor *in vivo*, and elucidation of the pathogenesis of hemochromatosis, anemia of chronic disease, and iron-refractory iron deficiency anemia (IRIDA). The lab has developed more than 30 mouse models, many of which have been used by investigators around the world to study iron homeostasis *in vivo*.

Among other honors, Dr. Andrews has received the E. Mead Johnson Award and the Samuel Rosenthal Prize for her research accomplishments. She was the 2010 recipient of the Vanderbilt Prize for Biomedical Science, the 2011 Award for Mentoring in Basic Sciences from the American Society of Hematology, the 2013 Marion Spencer Fay Award from the Institute for Women's Health and Leadership, and the 2013 Henry M. Stratton Medal from the American Society of Hematology. She was profiled by *Newsweek* in 2008 as one of 10 notable women leaders.

Dr. Andrews served as the 2009 president of the American Society of Clinical Investigation and as a founding board member of the Rosalind Franklin Society. She was elected as a fellow of the American Association for the Advancement of Science and to membership in both the Institute of Medicine of the National Academies and the American Academy of Arts and Sciences. She currently serves on the Council of the Institute of Medicine and the board of directors of the American Academy of Arts and Sciences.

Lee Babiss, M.D., nonvoting, ad hoc, is the chief scientific officer, executive vice president of discovery innovation, and chief executive officer of X-Rx for Pharmaceutical Product Development, Inc. (PPD). In these roles, he provides insight and guidance regarding scientific matters across all PPD business units as well as strategic leadership to the company's discovery innovation business.

Dr. Babiss joined PPD in 2010 with more than 21 years of experience in leading R&D efforts in support of drug discovery. He most recently served as president and director of pharmaceutical research for F. Hoffmann-La Roche, Ltd., in Basel, Switzerland, where his responsibilities included leading global laboratory functions in chemistry, discovery technologies, therapeutic proteins, non-clinical safety, and informatics. He supported drug discovery efforts in oncology, neurosciences, inflammation, virology, and metabolism and was a member of the company's pharma executive and strategic portfolios committees.

Prior to joining Hoffmann-La Roche, Dr. Babiss spent seven years with Glaxo, Inc., now GlaxoSmithKline. As vice president of biological sciences and genetics, he had global accountability for developing and implementing the company's corporate genetics strategy and oncology research efforts focused on the cell cycle.

Dr. Babiss earned a doctorate in microbiology from Columbia University and completed his postdoctoral fellowship at The Rockefeller University, where he served as an assistant and associate professor. He has published more than 60 peer-reviewed scientific papers, received numerous fellowship awards and grants, and serves on several scientific advisory committees and boards.

Linda Birnbaum, Ph.D., D.A.B.T., A.T.S., became the director of the National Institute of Environmental Health Sciences (NIEHS) and the National Toxicology Program (NTP) on January 18, 2009. In these roles, Dr. Birnbaum oversees federal funding for biomedical research to discover how the environment influences human health and disease. Several advisory boards and councils provide Dr. Birnbaum and NIEHS/NTP staff with input to accomplish this large task.

Dr. Birnbaum is the first toxicologist and the first woman to lead the NIEHS/NTP. She has spent most of her career as a federal scientist. Dr. Birnbaum has received numerous awards and recognitions, including being elected to the Institute of Medicine of the National Academies in October 2010, one of the highest honors in the fields of medicine and health.

Dr. Birnbaum's own research and many of her publications focus on the pharmacokinetic behavior of environmental chemicals; mechanisms of actions of toxicants, including endocrine disruption; and linking of real-world exposures to health effects. Dr. Birnbaum also finds time to mentor the next generation of environmental health scientists. For example, she serves as adjunct professor in the Gillings School of Global Public Health, the Curriculum in Toxicology, and the Department of Environmental Sciences and Engineering at the University of North Carolina at Chapel Hill, as well as in the Integrated Toxicology Program at Duke University.

A native of New Jersey, Dr. Birnbaum received her M.S. and Ph.D. in microbiology from the University of Illinois at Urbana-Champaign.

Josephine P. Briggs, M.D., is currently director of the National Center for Complementary and Alternative Medicine (NCCAM). Dr. Briggs received her B.A. in biology from Harvard-Radcliffe College and her M.D. from Harvard Medical School. She completed her residency training in internal medicine and nephrology at the Mount Sinai School of Medicine in New York, where she was also chief resident in the Department of Internal Medicine and a fellow in clinical nephrology. She then held a research fellowship in physiology at Yale School of Medicine, working with Dr. Fred Wright and Dr. Gerhard Giebisch. After completing her fellowship at Yale, Dr. Briggs was a research scientist for seven years at the Physiology Institute at the University of Munich in Germany.

In 1985, Dr. Briggs moved to the University of Michigan, Ann Arbor, where she held several academic positions, including associate chair for research in the department of internal medicine and professorships in the division of nephrology, department of internal medicine, and the department of physiology. Dr. Briggs joined NIH in 1997 as director of the Division of Kidney, Urologic, and Hematologic Diseases at the National Institute of Diabetes and Digestive and Kidney Diseases, where she oversaw extramural research activities.

Dr. Briggs has published more than 130 research articles and has served on the editorial boards of several journals. She is an elected member of the American Association of Physicians and the American Society of Clinical Investigation and a fellow of the American Association for the Advancement of Science. She is a recipient of many awards and prizes, including the Volhard Prize of the German Nephrological Society, the Alexander von Humboldt Scientific Exchange Award, and NIH Director's Awards.

Anthony S. Fauci, M.D., is director of the National Institute of Allergy and Infectious Diseases (NIAID) at NIH. Since his appointment as NIAID director in 1984, Dr. Fauci has overseen an extensive research portfolio devoted to preventing, diagnosing, and treating infectious and immune-mediated diseases. Dr. Fauci also is chief of the NIAID Laboratory of Immunoregulation, where he has made numerous important discoveries related to HIV/AIDS, and is one of the most-cited scientists in the field. Dr. Fauci has received numerous awards for his scientific accomplishments and public health leadership, including the National Medal of Science, the Mary Woodard Lasker Award for Public Service, and the Presidential Medal of Freedom.

Dr. Fauci is a member of the National Academy of Sciences, the American Academy of Arts and Sciences, the Institute of Medicine (Council Member), the American Philosophical Society, and the Royal Danish Academy of Science and Letters, as well as a number of other professional societies, including the American College of Physicians, the American Society for Clinical Investigation, the Association of American Physicians, the Infectious Diseases Society of America, the American Association of Immunologists, and the American Academy of Allergy, Asthma & Immunology. He is as an editor of *Harrison's Principles of Internal Medicine* as well as an author, co-author, or editor of more than 1,100 scientific publications, including several textbooks.

Gary H. Gibbons, M.D. is director of the National Heart, Lung, and Blood Institute (NHLBI) at NIH, where he oversees the third largest institute at NIH, with an annual budget of more than \$3 billion and a staff of 917 federal employees.

The NHLBI provides global leadership for research, training, and education programs to promote the prevention and treatment of heart, lung, and blood diseases and enhance the health of all individuals so that they can live longer and more fulfilling lives.

Prior to being named director of the NHLBI, Dr. Gibbons served as a member of the National Heart, Lung, and Blood Advisory Council (NHLBAC) from 2009 to 2012. He was also a member of the NHLBI Board of Extramural Experts (BEE), a working group of the NHLBAC.

Before joining the NHLBI, Dr. Gibbons served as the founding director of the Cardiovascular Research Institute, chairperson of the Department of Physiology, and professor of physiology and medicine at the Morehouse School of Medicine in Atlanta.

Under his leadership of the Cardiovascular Research Institute, Dr. Gibbons directed NIH-funded research in the fields of vascular biology, genomic medicine, and the pathogenesis of vascular diseases. During his tenure, the Cardiovascular Research Institute emerged as a center of excellence, leading the way in discoveries related to the cardiovascular health of minority populations. Dr. Gibbons received several patents for innovations derived from his research in the fields of vascular biology and the pathogenesis of vascular diseases.

Dr. Gibbons earned his undergraduate degree from Princeton University in Princeton, N.J., and graduated *magna cum laude* from Harvard Medical School in Boston. He completed his residency and cardiology fellowship at the Harvard-affiliated Brigham and Women's Hospital in

Boston. Prior to joining the Morehouse School of Medicine in 1999, Dr. Gibbons was a member of the faculty at Stanford University from 1990 to 1996 and at Harvard Medical School from 1996 to 1999.

Throughout his career, Dr. Gibbons has received numerous honors, including election to the Institute of Medicine of the National Academies of Sciences; selection as a Robert Wood Johnson Foundation Minority Faculty Development Awardee; selection as a Pew Foundation Biomedical Scholar; and recognition as an Established Investigator of the American Heart Association (AHA).

Alan E. Guttmacher, M.D., is director of the *Eunice Kennedy Shriver* National Institute of Child Health and Human Development (NICHD) at NIH.

NIH Director Francis Collins, M.D., Ph.D., announced Dr. Guttmacher's appointment as the director of NICHD on July 22, 2010.

Dr. Guttmacher assumed the duties of NICHD acting director on December 1, 2009. A pediatrician and medical geneticist, Dr. Guttmacher came to NIH in 1999 to work at the National Human Genome Research Institute (NHGRI), where he served in a number of roles, including deputy director from 2002 to 2010 and acting director from 2008 to November 30, 2009. In those roles, he oversaw NHGRI's efforts to advance genome research; integrate that research into health care; and explore the ethical, legal, and social implications of human genomics.

Born in Baltimore, Maryland, Dr. Guttmacher explains that he went into medicine because, as a middle school teacher, he became interested in the etiology and treatment of pediatric learning disorders. He received an A.B. degree from Harvard College in 1972 and an M.D. from Harvard Medical School in 1981. After completing his internship and residency in pediatrics at Children's Hospital Boston, Dr. Guttmacher earned a two-year National Research Service Award from the U.S. Public Health Service as a fellow in medical genetics at Children's Hospital Boston and Harvard Medical School.

Dr. Guttmacher became director of the Vermont Regional Genetics Center at the University of Vermont College of Medicine in 1987. While there, he launched a series of public health genetics programs, directed the Vermont Cancer Center's Familial Cancer Program and the Vermont Newborn Screening Program, and founded Vermont's only pediatric intensive care unit. He also directed the nation's first statewide effort to involve the general public in discussion of the Human Genome Project's (HGP's) ethical, legal, and social implications—an initiative funded by NIH. He also developed a busy practice in clinical genetics, conducted research, and was a tenured associate professor of pediatrics and medicine at the University of Vermont.

In 1999, he joined the NHGRI as senior clinical advisor to the director. In that role, Dr. Guttmacher established a dialogue with health professionals and the public about the health and societal implications of the HGP. He played a pivotal role in guiding the establishment of the National Coalition for Health Professional Education in Genetics, a nonprofit coalition that promotes health-professional education and access to information about advances in human genetics. He has given hundreds of talks to physicians, consumer groups, students, and the lay

public about genetics and its impact on health, health care, and society. Among his research interests have been dysmorphology, syndrome identification and delineation, and hereditary hemorrhagic telangiectasia.

Dr. Guttmacher became deputy director of NHGRI in 2002. In 2003, he and Dr. Francis Collins (now director of NIH) co-edited *Genomic Medicine*, a series about the application of advances in genomics to medical care for *The New England Journal of Medicine*. Dr. Guttmacher also oversees NIH's involvement in the U.S. Surgeon General's Family History Initiative, an effort to encourage all Americans to learn about and use their families' health histories to promote personal health and prevent disease. He previously served in volunteer leadership positions for several regional and national nonprofit organizations involved with reproductive health. He is a Fellow of the American Academy of Pediatrics and a member of the Institute of Medicine.

Stephen I. Katz, M.D., Ph.D., has been director of the National Institute of Arthritis and Musculoskeletal and Skin Diseases at NIH since August 1995, and he also serves as a senior investigator in the Dermatology Branch of the National Cancer Institute at NIH. After attending the University of Maryland, where he graduated with honors, he graduated from the Tulane University School of Medicine with honors in 1966. Dr. Katz completed a medical internship at Los Angeles County Hospital and did his dermatology residency at the University of Miami School of Medicine from 1967 to 1970. He served in the U.S. military at the Walter Reed Army Medical Center from 1970 to 1972. From 1972 to 1974, Dr. Katz did a postdoctoral fellowship at the Royal College of Surgeons of England, and he obtained a Ph.D. in immunology from the University of London in 1974. He then became senior investigator in the Dermatology Branch of the National Cancer Institute and assumed the position of acting chief in 1977. In 1980, he became chief of the branch, a position he held until October 2001. Dr. Katz continues to focus his studies on immunology and the skin. He is internationally renowned for his cutting-edge scientific contributions and his training of other scientists who now lead dermatology programs around the world. He has received many honors and awards, including election into the Institute of Medicine of the National Academy of Sciences (USA).

Scott Koenig, M.D., Ph.D., nonvoting, ad hoc, has been president and CEO of MacroGenics, a biotechnology company developing immune-based medicines to treat patients with cancer, autoimmune disorders, and infectious diseases, since September 2001. Prior to MacroGenics, he served as senior vice president of research at MedImmune. While working in the Laboratory of Immunoregulation at the National Institute of Allergy and Infectious Diseases at NIH, he investigated the immune response to retroviruses and studied the pathogenesis of AIDS. Dr. Koenig received his A.B. and Ph.D. from Cornell University and his M.D. from the University of Texas Health Science Center in Houston, where he was elected to Alpha Omega Alpha. He completed his residency in internal medicine at the Hospital of the University of Pennsylvania, and he is board certified in internal medicine and allergy and immunology. Dr. Koenig is the chairman of the board of directors at Applied Genetic Technologies Corporation, a biotech company developing genetic therapies for inherited diseases, and the Children's Research Institute of Children's National Medical Center. He also serves as a member of the MacroGenics board of directors, the Biotechnology Industry Organization board of directors, the board of directors of Children's National Medical Center, and the Cornell University Council.

Cato Laurencin, M.D., Ph.D., is the Albert and Wilda Van Dusen Distinguished Endowed Professor of Orthopaedic Surgery and professor of chemical, materials, and biomedical engineering at the University of Connecticut. In addition, Dr. Laurencin is a university professor at the University of Connecticut (the seventh in the institution's history). He is the director of both the Institute for Regenerative Engineering and the Raymond and Beverly Sackler Center at the University of Connecticut Health Center. Dr. Laurencin serves as the chief executive officer of the Connecticut Institute for Clinical and Translational Science at the University of Connecticut.

Dr. Laurencin earned his undergraduate degree in chemical engineering from Princeton, his medical degree *magna cum laude* from Harvard Medical School, and his Ph.D. in biochemical engineering/biotechnology from MIT.

A board-certified orthopaedic surgeon and shoulder/knee specialist, he won the Nicolas Andry Award from the Association of Bone and Joint Surgeons. His discoveries in research have been highlighted by *Scientific American* and more recently by *National Geographic* in its "100 Scientific Discoveries that Changed the World" edition.

Dr. Laurencin is an outstanding mentor, and he has received the Presidential Award for Excellence in Science, Mathematics, and Engineering Mentoring in ceremonies at the White House. Dr. Laurencin has received the Elizabeth Hurlock Beckman Award for mentoring and the American Association for the Advancement of Science's Mentor Award.

Dr. Laurencin previously served as the University of Connecticut Health Center's vice president for health affairs and dean of the School of Medicine. Prior to that, Dr. Laurencin was the Lillian T. Pratt Distinguished Professor and chair of the Department of Orthopaedic Surgery at the University of Virginia and orthopaedic surgeon-in-chief for the University of Virginia Health System.

Dr. Laurencin is an elected member of the Institute of Medicine of the National Academy of Sciences and an elected member of the National Academy of Engineering. He is also an elected member of the National Academy of Inventors.

Michael A. Marletta, Ph.D., nonvoting, ad hoc, received an A.B. degree in biology and chemistry from the State University of New York at Fredonia in 1973 and a Ph.D. in 1978 from the University of California, San Francisco, followed by a 2-year postdoctoral appointment at MIT. He was a faculty member at MIT and the University of Michigan. While at Michigan, he was appointed to the Howard Hughes Medical Institute. Dr. Marletta moved to the University of California, Berkeley, in 2001 with appointments in chemistry and MCB. In 2002, he was named the Aldo DeBenedictis Distinguished Professor of Chemistry. He served as chair of the Department of Chemistry from 2005 to 2010. In July 2011, he joined the faculty of The Scripps Research Institute and was named president-elect and Cecil and Ida Green Professor of Chemistry. He assumed the presidency on January 1, 2012.

Dr. Marletta has been recognized with a MacArthur Fellowship (1995) and elections to the Institute of Medicine (1999), the American Academy of Arts and Sciences (2001), and the National Academy of Sciences (2006). He received the Harrison Howe Award (2004), the Repligen Award (2006), and the Esselen Award for Chemistry in the Public Interest (2006). Dr. Marletta's primary research interests lie at the interface of chemistry and biology, with an emphasis on the study of protein function and enzyme reaction mechanisms.

Gilbert S. Omenn, M.D., Ph.D., *nonvoting, ad hoc*, is professor of internal medicine, human genetics, and public health and director of the Center for Computational Medicine & Bioinformatics and the Proteomics Alliance for Cancer Research at the University of Michigan. He served as Executive Vice President for Medical Affairs and as chief executive officer of the University of Michigan Health System from 1997 to 2002. He was dean of the School of Public Health and professor of medicine and environmental health at the University of Washington, Seattle, from 1982 to 1997. His research interests include cancer proteomics, chemoprevention of cancers, public health genetics, computational biology, science-based risk analysis, and health policy. He was principal investigator of the Beta-Carotene and Retinol Efficacy Trial of preventive agents against lung cancer and heart disease; director of the Center for Health Promotion in Older Adults; and creator of a university-wide initiative on Public Health Genetics in Ethical, Legal, and Policy Context while at the University of Washington and Fred Hutchinson Cancer Research Center. He served as associate director, Office of Science and Technology Policy, and associate director, Office of Management and Budget, in the Executive Office of the President in the Carter Administration.

Dr. Omenn was in the intramural program of NIH in the Anfinsen Lab from 1967 to 1969 as a Lieutenant Commander in the U.S. Public Health Service. He has had NIH grants for more than four decades. He served on the National Cancer Advisory Board, the NHLBI Advisory Council, the Society of Fellows for the National Center for Minority Health and Health Disparities, and the Director's Advisory Committee of the Centers for Disease Control and Prevention. He is a director of Amgen, Inc., and Armune Biosciences, Inc. He leads the Plasma Proteome Project for the international Human Proteome Organization and is president of US HUPO. He was president of the American Association for the Advancement of Science (AAAS) in 2006. He was elected an Ambassador of the Research!America Paul G. Rogers Society for Global Health, serves on the advisory board for the Shanghai Jiao Tong University Medical School, and is active in numerous international health and science policy initiatives.

Dr. Omenn is the author of 507 research papers and scientific reviews and author/editor of 18 books. He is a member of the Institute of Medicine of the National Academy of Sciences, the American Academy of Arts and Sciences, the Association of American Physicians, and the American College of Physicians. He chaired the Presidential/Congressional Commission on Risk Assessment and Risk Management ("Omenn Commission"), served on the National Commission on the Environment, and chaired the NAS/NAE/IOM Committee on Science, Engineering and Public Policy. He received the John W. Gardner Legacy of Leadership Award from the White House Fellows Association in 2004 and the Walsh McDermott Medal from the Institute of Medicine in 2008 for long-term contributions to the IOM and the National Academy of Sciences.

He is active in cultural and educational organizations and is a musician and tennis player. Dr. Omenn received his B.A. *summa cum laude* from Princeton, his M.D. *magna cum laude* from Harvard Medical School, and his Ph.D. in genetics from the University of Washington.

Roderic I. Pettigrew, M.D., Ph.D., is the first director of the National Institute of Biomedical Imaging and Bioengineering at NIH. Prior to his appointment at NIH, he was professor of radiology, medicine (cardiology) at Emory University and of bioengineering at the Georgia Institute of Technology, and he was director of the Emory University School of Medicine's Emory Center for MR Research.

Dr. Pettigrew is known for his pioneering work involving four-dimensional imaging of the cardiovascular system using magnetic resonance imaging (MRI). Dr. Pettigrew graduated *cum laude* from Morehouse College, where he was a Merrill Scholar, with a B.S. in physics, and he holds an M.S. in nuclear science and engineering from Rensselaer Polytechnic Institute and a Ph.D. in applied radiation physics from the Massachusetts Institute of Technology, where he was a Whitaker Harvard-MIT Health Sciences Scholar. Subsequently, he received an M.D. from the University of Miami School of Medicine in an accelerated two-year program, did an internship and residency in internal medicine at Emory University, and completed a residency in nuclear medicine at the University of California, San Diego. Dr. Pettigrew spent a year as a clinical research scientist with Picker International, the first manufacturer of MRI equipment, where he helped develop cardiac imaging technology. In 1985, he joined Emory as a Robert Wood Johnson Foundation Fellow with an interest in noninvasive cardiac imaging. His current research focuses on integrated imaging and predictive biomechanical modeling of coronary atherosclerotic disease.

Dr. Pettigrew's awards include membership in Phi Beta Kappa, the Benjamin E. Mays Award for Achievement, and being named the Most Distinguished Alumnus of the University of Miami (1990). He was the Radiological Society of North America's 75th Diamond Jubilee Eugene P. Pendergrass New Horizons Lecturer. He has also received the Association of Black Cardiologists' Herbert Nickens Award, the Biomedical Engineering Society's Distinguished Achievement Award, and the National Medical Association's Distinguished Service Award. He has been elected to membership in two components of the U.S. National Academies: the Institute of Medicine and the National Academy of Engineering.

Griffin P. Rodgers, M.D., M.A.C.P., is the director of the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) at NIH, a position he has held since April 1, 2007. An active researcher, Dr. Rodgers also is chief of the Molecular and Clinical Hematology Branch of NHLBI's Intramural Research Program.

A native of New Orleans, Dr. Rodgers received his undergraduate, graduate, and medical degrees from Brown University in Providence, Rhode Island. He was an intern, resident, and chief resident in internal medicine at Barnes Hospital and the Washington University School of Medicine in St. Louis, Missouri. His fellowship training in hematology was in a joint program of NIH, The George Washington University, and the Washington Veterans Administration Medical Center.

Dr. Rodgers has been honored for his research with numerous awards, including the Public Health Service Physician-Researcher of the Year and Hildrus A. Poindexter Awards, the Richard and Hinda Rosenthal Foundation Award, the Arthur S. Flemming Award, and Mastership in the American College of Physicians.

Dr. Rodgers has served as distinguished lecturer and has delivered several named lectures nationally and internationally. He has published more than 150 original research articles and numerous reviews, book chapters, books, and monographs. He is a member of the editorial boards of several scientific journals.

Larry J. Shapiro, M.D., *non-voting, ad hoc*, is the executive vice chancellor for medical affairs and dean of Washington University School of Medicine in St. Louis. He also is president of Washington University Medical Center, which includes the School of Medicine, Barnes-Jewish Hospital, and St. Louis Children's Hospital.

Dr. Shapiro is a vice chair of the Governing Council of the Institute of Medicine of the National Academy of Sciences. He also serves as a member of the Governing Board of the National Research Council.

An internationally renowned genetics researcher and pediatrician, Dr. Shapiro is recognized for his work in human genetics, molecular biology, and biochemistry. He is the author of more than 130 scientific publications and has extensive experience in teaching and patient care.

Dr. Shapiro is known for research on human molecular genetics and inborn errors of metabolism, specifically lysosomal storage disorders and abnormalities of steroid and oxalate metabolism. He also has studied the structure and function of mammalian sex chromosomes, with a particular focus on mechanisms of sex determination, and his research has made important contributions to the understanding of X chromosome inactivation.

In 2004, Dr. Shapiro and Chancellor Mark S. Wrighton, Ph.D., announced a \$300-million biomedical science initiative to quickly transform genetic research into new medical treatments. BioMed 21 is designed to rapidly bring the new knowledge of the human genetic blueprint to the patient's bedside and to change how illnesses, ranging from diabetes to Alzheimer's disease to various cancers, are understood, diagnosed, and treated. The program includes faculty from the University's Schools of Medicine, Engineering, and Arts & Sciences.

Prior to becoming executive vice chancellor and dean at Washington University School of Medicine, Dr. Shapiro served as the W.H. and Marie Wattis Distinguished Professor and chair of the Department of Pediatrics at the University of California, San Francisco (UCSF), where he directed and expanded one of the leading academic pediatric departments in the country. He also helped establish the UCSF Children's Hospital.

Martha J. Somerman, D.D.S., Ph.D., has been the director of the National Institute of Dental and Craniofacial Research since August 2011. She is also chief of the Laboratory for Oral Connective Tissue Biology at the National Institute of Arthritis and Musculoskeletal and Skin Diseases.

Dr. Somerman was the dean of the University of Washington School of Dentistry and professor in periodontics from 2002 to 2011 and was associate dean for research at the University of Michigan, Ann Arbor, as well as professor in the department of periodontics, prevention, and geriatrics, from 2001 to 2002. She chaired that department from 1990 to 2000 and was concurrently a professor in the department of pharmacology at the University of Michigan Medical School. From 1984 to 1990, she was an assistant professor and later an associate professor at the University of Maryland College of Dentistry in the departments of periodontics and pharmacology. In the early 1980s, she was a staff fellow at the NIH National Institute of Dental Research, where she served first in the Developmental Biology and Anomalies Laboratory and then in the laboratory of the Clinical Investigations and Patient Care Branch.

Dr. Somerman's research focuses on defining the key regulators controlling the development, maintenance, and regeneration of tissues that form the dental-oral-craniofacial complex. In addition, she studies the appropriate cells, genes (factors), and scaffolds needed to rebuild periodontal structures lost through disease.

Dr. Somerman has published more than 120 peer-reviewed articles and has served on several editorial boards, including those of the *Journal of Dental Research* and the *International Journal of Oral and Maxillofacial Implants*. She has reviewed grants submitted to the National Institute of Dental and Craniofacial Research (NIDCR) and the National Center for Research Resources, and she has served on committees for AAAS, the International and American Associations for Dental Research (IADR/AADR), and the American Dental Association. In addition, she has served on the Legislative Advisory Committee of the American Dental Education Association, advising on public policy in the areas of dental and biomedical research, education and training, access and disparities in care, and infrastructure and workforce.

Among Dr. Somerman's awards and honors are the William K. and Mary Anne Najjar Professorship at the University of Michigan, which she held from 1992 to 2002. She was named a diplomate of the American Board of Periodontology in 1990 and was president of AADR in 2001. Dr. Somerman has received the William J. Gies Award from the American Academy of Periodontology (2003) and IADR's Distinguished Scientist Award for Research in Oral Biology (2005). She received the IADR/Straumann Award in Regenerative Periodontal Medicine in 2010 and the Paul Goldhaber Award from the Harvard School of Medicine in 2011. From 1999 to 2002, she was a member of the National Advisory Dental Research Council of NIDCR. Dr. Somerman is also a Fellow of AAAS, the International College of Dentists, and the American College of Dentists.

Dr. Somerman earned her B.A. in biology from New York University (NYU) and a D.D.S. from NYU in 1975. She then specialized in periodontology and pharmacology at the Eastman Dental Center and University in Rochester, New York, earning in a certificate in periodontics (1978) and a Ph.D. in pharmacology (1980).

Clyde W. Yancy, M.D., *nonvoting, ad hoc*, is the chief of cardiology at Northwestern University, Feinberg School of Medicine, and associate director of the Bluhm Cardiovascular Institute at Northwestern Memorial Hospital. He holds the Magerstadt Endowed Professor of Medicine Chair. Formerly he was the medical director at the Baylor Heart and Vascular Institute and chief of cardiothoracic transplantation at Baylor University Medical Center in Dallas, Texas. He is board certified in internal medicine with a subspecialty in cardiovascular disease. He is a fellow of the American College of Cardiology (ACC), a Fellow of the American Heart Association, and a Master of the American College of Physicians. He also is a member of the International Society of Heart and Lung Transplantation, the American Society of Hypertension, the Heart Failure Society of America (HFSA), and the Association of Black Cardiologists. He has served on the executive council of the HFSA, and he is past chair of the education committee of the HFSA and of the Council of Clinical Cardiology's Heart Failure and Transplantation Subcommittee of the AHA. Dr. Yancy has served two terms on the national board of directors for the AHA and was recognized as the AHA National Physician of the Year in 2003. He sits on the ACC/AHA Guideline Writing Committee for chronic heart failure and is a member of the ACC Guideline Taskforce, which oversees all ACC/AHA guidelines. From 2009 to 2010, he served as president of AHA.