

SCI 09 INTERNATIONAL FEST SCIENCE FESTIVAL OCTOBER 7-11, 2009 ST. LOUIS

GET YOUR BRAIN IN THE GAME

PRESENTER BIOGRAPHIES

To schedule interviews, contact:

Beth McClure, Public Relations Manager
314.289.1455 (o)
314.267.9916 (c)
bmclure@slsc.org

BENJAMIN AKANDE, Ph.D.

*Dean, School of Business & Technology & Professor of Business & Management
Webster University*

As the chief academic officer of the 13,000-student business school, Dean Akande leads a faculty of 2,300 spanning 107 campuses in the U.S., Europe, and Asia. Since joining Webster as dean in 2000, Akande has provided leadership that has elevated the business school to new heights in curriculum innovation and dynamic partnerships with corporations.

Dean Akande holds a Ph.D. in economics from the University of Oklahoma and completed post-doctoral studies at the John F. Kennedy School of Government at Harvard University. His articles have been published in some of the nation's mainstream newspapers and journals. He serves on the boards of the Newberry Group, Xiolink Corporation, and the Private Bank of St. Louis and consults with some of the leading Fortune 500 companies in the areas of strategy, operations, ethics, corporate responsibility, and market positioning. An electrifying speaker who exudes passion and excitement in his delivery, he brings to every presentation and conversation a wealth of experience that spans more than two decades as a professor, leader, and consultant. His understanding of the issues that define our time is thorough and insightful. Dr. Akande has a sense of constructive impatience and affirms that the future belongs to those who can see it.

WENDY APPLEQUIST, Ph.D.

*Assistant Curator, William L. Brown Center
Missouri Botanical Garden*

A native of Illinois who earned her Ph.D. in plant systematics from Iowa State University in 1999, Dr. Applequist has been working at the Missouri Botanical Garden since 2000. As assistant curator in the Brown Center, the Garden's economic botany department, she manages collaborations with institutions researching medicinal plants and plant collections in the U.S., Madagascar, and Vietnam on behalf of drug discovery programs. Wendy is the author of The

Identification of Medicinal Plants: A Handbook of the Morphology of Botanicals in Commerce. She also does traditional taxonomic research on plants native to Madagascar.

JEFFREY P. BONNER, Ph.D.

President & CEO

Saint Louis Zoo

Dr. Bonner received his B.A. in anthropology from the University of Missouri – Columbia in 1975. He received his M.A. and M. Phil. degrees in anthropology from Columbia University in New York in 1977 and 1979, along with his Ph.D. from Columbia in 1982.

Dr. Bonner has served as the President and Chief Executive Officer of the Saint Louis Zoo since April 2002. Prior to his current position, he was the President and CEO of the Indianapolis Zoo and White River Gardens. Dr. Bonner has also held positions at the Saint Louis Science Center.

He recently chaired the Amphibian Ark, a worldwide effort of the World Association of Zoos and Aquariums, the IUCN Conservation Breeding Specialist Group and the IUCN Amphibian Specialist Group. Their mission is to ensure the global survival of amphibians, facing the largest mass extinction since the dinosaurs. He serves on numerous boards, including Association of Zoos and Aquariums (vice-chair elect), the World Association of Zoos and Aquariums, and the Conservation Breeding Specialist Group.

He is the former chair of the International Species Information System and the Madagascar Fauna Group, an international consortium of 39 zoos and related institutions. Dr. Bonner is a Burgess Fellow, Traveling Fellow, Fulbright Scholar, President's Fellow, and a recipient of the National Research Service Award. Dr. Bonner is the author of numerous articles and has written a book based on his doctoral research in northern India. Bonner is also the author of *Sailing with Noah, Stories from the World of Zoos*. The book, published in 2006, is an intensely personal, behind-the-scenes look at modern zoos.

GODFREY R. BOURNE, Ph.D.

Associate Professor of Evolutionary and Tropical Ecology

University of Missouri-St. Louis

Dr. Bourne earned his B.A. degree in zoology at Ohio Wesleyan University, his M.En. degree in wetland ecology at Miami University, and his Ph.D. in avian behavioral ecology at the University of Michigan. Professor Bourne has spent more than 40 years in behavioral and ecological research, and has worked in some of Guyana's most remote locations. He runs an active research laboratory investigating evolutionary aspects of animal behavior in butterflies and other pollinators of rainforest plants, and sexual selection in fishes, frogs, and birds.

Dr. Bourne's primary field site is the CEIBA Biological Center, the only biological station on the white sand formation of the Guiana Shield. Professor Bourne has lived in the USA since 1966. He has served as the Curator of Birds at the Detroit Zoological Park, as a Senior Research Scientist at the South Florida Water Management District in West Palm Beach and taught ecology, behavioral ecology, and evolution at Florida Atlantic University in Boca Raton. Dr. Bourne has been a faculty member at the University of Missouri-St. Louis for 16 years.

Dr. Bourne has also served as a Program Director for the Animal Behavior Program at NSF, is actively involved in rainforest conservation, serving as the Executive Director of CEIBA Biological Center, as a researcher for the International Center for Public Health and

Environmental Research (PHER), and is a member of the Amphibian Specialist Group of IUCN/SSC Brazilian Amazon-Guianas Regional Working Group.

He is also on the editorial board of a scientific journal, *Aquaculture, Aquarium, Conservation and Legislation* (AACL), the *International Journal of the Bioflux Society*, Bucharest, Romania. Professor Bourne is an Elected Member of the American Ornithologists' Union (AOU), member of the American Association for the Advancement of Science (AAAS), Sigma Xi, American Society of Ichthyologists and Herpetologists (ASIH), Animal Behaviour Society, Cooper Ornithological Society (COS), the Society for the Study of Evolution (SSE), and Wilson Ornithological Society (WOS).

CYNTHIA A. BRIGGS, M.M., Psy.D., MT-BC

Director of Music Therapy Programs

Maryville University, St. Louis, MO

Dr. Cynthia Briggs is a licensed psychologist and board certified music therapist. She has worked in a variety of academic and clinical settings over her 30 years as a professional, with emphasis on child development, child psychiatry and the arts. She received her undergraduate degree in music therapy from the University of Kansas and her masters degree in music therapy from the University of Miami. Her doctorate is in clinical psychology from Drexel/Hahnemann University. Dr. Briggs has presented at professional conferences including the American Music Therapy Association, the Canadian Music Therapy Association, the American Psychological Association, and the American Psychiatric Association. She has published in professional journals and books.

Dr. Briggs is a past president of the American Association for Music Therapy (now AMTA) and a past chairperson of the National Coalition of Arts Therapies Association (NCATA, 1991-1993).

ABHILASH K. DESAI, M.D

Associate Professor and Director of Center for Healthy Brain Aging

Department of Neurology & Psychiatry, Division of Geriatric Psychiatry.

Saint Louis University School of Medicine

Dr. Desai completed his Fellowship in Geriatric Psychiatry at Saint Louis University School of Medicine in 1999 and went on to serve as the Medical Director for the Alzheimer's Center of Excellence in Appleton, WI. Prior to that, he was the medical director of the behavioral health unit at Grand View Hospital in Sellersville, PA as well as the medical director of the senior lifestyles unit at Missouri Delta Medical Center in Sikeston, Mo. Under his direction, the Alzheimer's Center of Excellence received the Outstanding Organization Award from the Wisconsin Alzheimer's Association in 2007. He also received an award for Outstanding Excellence in Geriatric Psychiatry from the Missouri Department of Health and Senior Services in 2003.

GIOVANNI G. FAZIO, Ph.D.

Senior Physicist, Harvard-Smithsonian Center for Astrophysics; Lecturer, Astronomy

Department

Harvard University

Faculty Member, International Space University

Strasbourg, France

Dr. Fazio received BS (Physics) and BA (Chemistry) degrees from St. Mary's University, San Antonio, Texas in 1954, and a Ph.D. (Physics) from the Massachusetts Institute of Technology in 1959, having done his graduate work in elementary particle physics. The same year, he joined the Physics Department at the University of Rochester where he pioneered the development of gamma-ray astronomy using balloon-borne telescopes and was the Co-Principal Investigator for the gamma-ray detector experiment on NASA's first Orbiting Solar Observatory (1962). He joined the Smithsonian Astrophysical Observatory and the Harvard College Observatory in 1962, where he initiated a program in gamma-ray astronomy using balloon-borne and ground-based detectors. He also initiated the construction of the 10-meter optical reflector at the F. L. Whipple Observatory, Arizona, to search for ultrahigh-energy cosmic gamma-rays. In the early 1970's he pioneered the development of large balloon-borne telescopes for far-infrared astronomical observations above the atmosphere and for twenty years was Principal Investigator for the 1-Meter Balloon-Borne Far-Infrared Telescope. He was also the Principal Investigator for the first infrared astronomical telescope to fly on the Spacelab II flight of the Space Shuttle (1985). In 1984, he was selected as Principal Investigator for the Infrared Array Camera (IRAC) experiment on the Spitzer Space Telescope, one of NASA's Great Observatories. The telescope was launched in August 2003, and since then continues to produce many important discoveries and spectacular new images of the infrared Universe. Dr. Fazio was also a Co-Investigator on the Submillimeter Wave Astronomical Satellite (SWAS; 1998). His current research interests include the development of infrared instrumentation and the use of infrared array cameras on ground-based and space telescopes to observe galaxy formation and evolution in the early Universe, ultraluminous galaxies, star formation and evolution, and brown dwarfs.

Dr. Fazio is a past President of the International Astronomical Union's Division XI and Commission 44 (Space and High Energy Astrophysics); past Chairman, Universities Space Research Association (USRA) Science Council for Astronomy and Space Physics; past Vice-Chairman of the COSPAR Commission on Research in Astrophysics from Space; and currently a member of the Space Telescope Institute Council (STIC).

Dr. Fazio is a Fellow of the American Physical Society and past chairman of its Astrophysics Division, a Fellow of the American Association for the Advancement of Science (AAAS), a member of the American Astronomical Society and past chairman of its High Energy Astrophysics Division. He is also a member of the International Astronomical Union, the Optical Society of America, and a Fellow of the Royal Astronomical Society. He has been a member of numerous national and international advisory committees and is an author on more than 350 publications in scientific journals and books. Dr. Fazio has received four NASA Group Achievement Awards and in 1998, he received the Tsiolkovsky Medal, Russia's State Museum of the History of Cosmonautics. In 2005 he received the UNICO National Marconi Science Medal and the NASA Public Service Medal, and in 2008 the Royal Society of London/COSPAR Massey Award (Gold Medal) for outstanding achievements in space science.

DEAN KAMEN

Inventor, Physicist

Founder, FIRST (For Inspiration and Recognition of Science and Technology)

As an inventor and physicist, Dean Kamen has dedicated his life to developing technologies that help people lead better lives. As an inventor, he holds more than 440 U.S. and foreign patents, many of them for innovative medical devices that have expanded the frontiers of health care worldwide. He invented the automatic, self-contained, ambulatory pump designed to deliver

precise doses of medication to patients with a variety of medical conditions. In 1976, he founded AutoSyringe, Inc., to manufacture and market the pumps.

At age 30, he sold that company to Baxter International Corporation. By then, he had added a number of other infusion devices, including the first wearable insulin pump for diabetics. Following the sale of AutoSyringe, Inc., he founded DEKA Research & Development Corp. The array of products and technologies invented and developed by Mr. Kamen and the engineering team at DEKA include two notable breakthrough medical devices, the HomeChoice™ portable dialysis machine, marketed by Baxter Healthcare, and the iBOT™ Mobility System, a sophisticated mobility aid developed for Johnson & Johnson.

With the Segway™ Human Transporter, Mr. Kamen aspired to improve upon the most basic form of transportation, walking, by allowing people to go farther, move more quickly, and carry more without separating them from their everyday walking environment. DEKA's other projects include: a robotic arm project intended to restore functionality for individuals with upper extremity amputations; a new and improved Stirling engine intended to convert almost any fuel into electrical power and clean heat, a new water purification technology intended to convert almost any source water into safe drinking water; and many others.

Among Mr. Kamen's proudest accomplishments is founding **FIRST** (For Inspiration and Recognition of Science and Technology), an organization dedicated to motivating the next generation to understand, use and enjoy science and technology. In 2009, its flagship program, the FIRST Robotics Competition, will reach more than 42,000 high-school students on close to 1,700 teams in 40 regional competitions, seven district competitions, and one national championship. In 1998, the FIRST LEGO League was created for children ages 9-14 to build a robot and compete in a friendly event designed for their age group. In the 2008/09 season, over 137,000 children are participating in 42 countries.

Mr. Kamen has received numerous awards and accolades including the Heinz Award in Technology, the Economy and Employment in 1998, the National Medal of Technology from President Clinton in 2000, the Lemelson-MIT Prize in 2002 for Invention and Innovation, the United Nations Association of the USA Global Humanitarian Action Award in 2006 and honorary degrees from more than 25 colleges and universities. Mr. Kamen was inducted into The National Inventors Hall of Fame in May 2005.

IRA J. KODNER, M.D.

*Solon and Bettie Gershman Professor of Colon and Rectal Surgery
Director, Center for the Study of Ethics and Human Values
Washington University at St. Louis, School of Medicine*

Dr. Kodner earned both his bachelor's and medical degrees at Washington University. Following his residency in surgery at Jewish Hospital in St. Louis, he served in the US Army for three years and then completed a fellowship in Colon and Rectal Surgery at Cleveland Clinic. He joined the School of Medicine faculty in 1976 as a clinical instructor of surgery and spent 10 years in private practice before joining the full-time academic faculty and rising to Full Professor of Surgery.

After 20 years of teaching medical students ethical and compassionate care of their patients, and dealing with the utilization of recently obtainable genetic information on risk for colorectal cancer, he became a consultant and author for the American College of Surgeons curriculum for

teaching ethics to surgery residents. In 2003, he completed a year-long Fellowship in Clinical Medical Ethics at the University of Chicago, and in 2004, he was appointed Director of the Washington University Center for the Study of Ethics and Human Values. This center is one of only a few comprehensive, truly interdisciplinary programs in ethics and human values at any university in the United States. While other centers study human values, most are located in a particular school and address specific topics. The Center for the Study of Ethics and Human Values supports the study, research, and teaching of ethics in all areas ranging, from medicine to business to law to architecture and encompasses all eight Schools of the University.

Along with his other duties, Dr. Kodner also is the founder of the Section of Colon and Rectal Surgery at the School of Medicine and Barnes-Jewish Hospital, and has published more than 100 scientific articles relating to diseases of the colon and rectum.

Dr. Kodner has received many honors for his accomplishments in medicine and teaching, including the American Cancer Society Award for Leadership and the School of Medicine's Distinguished Alumni Scholarship, the Washington University School of Medicine Distinguished Faculty Award and has just been recognized with the Distinguished Alumni Award from the Washington University School of Arts and Sciences. He is a Past President of the American Board of Colon and Rectal Surgery and the American Society of Colon and Rectal Surgeons and has served as a Director of the American Board of Surgery.

He served from 1968-1971 in Germany in the U.S. Army Medical Corps, achieving the rank of Major. He also served for 4 years as the Chief Medical Consultant for KMOV-TV, the CBS affiliate in St. Louis, and serves as attending in the Surgery Clinic at St. Louis Connect Care, the Safety Net Program for the indigent or uninsured in the Greater St. Louis area.

DIANDRA L. LESLIE-PELECKY, Ph.D.

Department of Physics

University of Texas at Dallas

A group of racecars piloted by the best drivers in NASCAR is turning a corner. Without warning, one of the cars suddenly hits the outside wall. None of the cars touched, there were no engine failures or flat tires... so what happened? This is the question that sparked physics professor Diandra Leslie-Pelecky's interest in the science of NASCAR.

What she thought would be ten-minute search of the web turned into a book, *The Physics of NASCAR*, that takes NASCAR (and science) fans behind the scenes at top race shops, onto the asphalt at Texas Motor Speedway and into the garage with the Gillett Evernham Motorsports' No. 19 car. Her popular website, www.stockcarscience.com includes a blog with weekly entries about topical science-related happenings in NASCAR.

Diandra Leslie-Pelecky earned undergraduate degrees in physics and philosophy from the University of North Texas and a Ph.D. in condensed matter physics from Michigan State University. She joined the University of Nebraska-Lincoln in 1994, and moved to The University of Texas at Dallas as Professor of Physics in May 2008. Professor Leslie-Pelecky is a nationally recognized researcher in magnetic nanomaterials. Her work, which is funded by the National Science Foundation and the National Institutes of Health, focuses on fundamental understanding of magnetic materials and application of those materials to medical diagnosis and treatment processes such as magnetic resonance imaging and chemotherapy.

Dr. Leslie-Pelecky is also nationally recognized for her work in science education for K-12 schools, future science teachers, and the public. She has directed projects aimed at improving science education at all levels, supported primarily by the National Science Foundation. Educational materials on the science of motorsports are being developed for middle and high schools (www.buildingspeed.org).

Professor Leslie-Pelecky has given numerous presentations for technical and non-technical audiences, including addresses for the public sponsored by the American Association for the Advancement of Science and the American Physical Society. Her book, *The Physics of NASCAR*, was excerpted by *TIME* magazine and has been featured in *Sporting News* magazine. She appears periodically on the *Sirius Speedway* satellite radio program to update listeners on the scientific principles that affect their favorite drivers.

DR. MARK LEWNEY, Ph.D.

*UK Intellectual Property Office
Liverpool, England*

Dr. Lewney has a PhD in acoustics from Cardiff University and now works on new inventions in telecoms at the UK Intellectual Property Office. In 2005, he won an “American-Idol-for-Scientists” competition called FameLab and has since appeared on Radio 4’s Material World as a guitar expert, on BBC’s *Newsnight* as a “physics evangelist”, and on CBBC’s *Xchange!* as the “Rock Doctor”, being introduced as a cross between Einstein and Jimi Hendrix.

In 2007, Mark presented his guitar physics 3 Minute Wonder on UK television and, in 2008; his lecture tour reached over 20,000 school students around the UK. More information on Dr. Lewney can be found on his web site: [**www.doctorlewney.com**](http://www.doctorlewney.com)

BRYCE MOORE

*Web Manager
KMOV, St. Louis, MO*

Bryce graduated with a BS degree in Mass Communications from the University of Southern Illinois-Edwardsville in 1989 and, shortly thereafter, began his career in broadcast communications with KMOV, the CBS affiliate station in St. Louis.

After years of producing local newscasts, Bryce took the plunge into “new media.” Bryce works closely with other regional media outlets and universities to generate new ideas and partnerships to realize the potential for journalism in the 21st century.

He is on the leading edge of television news and what it will look like in the next decade.

MONICA MOORE, Ph.D.

*Professor, Department of Behavioral and Social Sciences
Webster University in St. Louis*

Dr. Moore has been on the faculty at Webster University in St. Louis, Missouri for twenty-three years where she teaches psychology courses in the Department of Behavioral and Social Sciences. Professor Moore received her Ph.D. in Experimental Psychology from the University of Missouri-Columbia. She re-specialized in Clinical Psychology at the University of Missouri-St. Louis and is a licensed Psychologist.

For approximately thirty years, Monica Moore has been investigating the aspect of body language, commonly called flirting, associated with courtship. Her research on nonverbal behavior has resulted in the description of nonverbal courtship and rejection behaviors in women. She has published this work in academic journals such as *Human Ethology and Sociobiology*, *Semiotica*, and *The Journal of Sex Research*. Professor Moore's research has also been detailed in magazines and newspapers such as *Self*, *YM*, *Seventeen*, *Redbook*, *Harper's*, the *Los Angeles Times* and, the *New York Times*.

JOHN E. MORLEY, M.B., B.CH.

Dammert Professor of Gerontology and Director, Division of Geriatric Medicine

Saint Louis University Medical Center

Director of the Geriatric Research, Education, and Clinical Center

St. Louis Veterans Affairs Medical Center

Dr. Morley has been engaged in his present endeavors since moving to St. Louis in July 1989.

He completed his medical degree at the University of Witwatersrand in Johannesburg, South Africa in 1972. After completing his internal medicine residency in South Africa, he completed a fellowship in endocrinology at UCLA. He has subsequently served as a staff endocrinologist at the Minneapolis VA Medical Center and the University of Minnesota, Director of the Geriatric Research, Education, and Clinical Center, Sepulveda, A VA Medical Center and a Professor of Medicine, University of California, Los Angeles. Dr. Morley is board certified in internal medicine, endocrinology, and geriatric medicine. He has edited over 20 books including *Medical Care in the Nursing Home*, *Geriatric Nutrition*, *Endocrinology of Aging*, and *Principles and Practice of Geriatric Medicine*.

His most recent book published in 2008 is *The Science of Staying Young*, which focuses on information for the general public. He has published over 1,000 papers, with a major research emphasis on the role of neuropeptides in the modulation of hormonal responses and behavior as well as nutrition and hormones in older persons. To date, his work has been cited over 20,000 times.

He has served on the editorial boards of nine journals. He was the associate editor of the Journal of American Geriatrics Society. He edits the geriatrics section of Cyberounds. He served as Editor for the Journal of Gerontology: Medical Sciences from January 2000 through December 2005. He is the Editor for the Journal of the American Medical Director's Association.

Dr. Morley has been cited numerous times for his contributions including:

- Mead Johnson Award of the American Institution of Nutrition in 1985 for his work in appetite regulation
- Medical Director of the Year for Life Care Centers of America in 1998
- IPSEN Foundation Longevity Prize in 1998 one of the most prestigious European awards for research in gerontology
- 2001 Gayle and Richard Olson Prize for Most Outstanding Behavioral Paper Published the Previous Year in the Journal *Peptides*
- 2001 Circle Award from the American Dietetic Association
- 2002 American Geriatrics Society's Nascher/Manning Award for his life-long achievements in clinical geriatrics

- 2004 Joseph T. Freeman Award by the Gerontological Society of America for his work in geriatrics both in research and practice
- 2005 Marsha Goodwin-Beck Interdisciplinary Award for Excellence in Geriatric Leadership by the Department of Veterans Affairs National Leadership Board

DAVID PETERS, Ph.D.

*McDonnell Douglas Professor of Engineering
Washington University at St. Louis*

David Peters received his B.S. and M.S. degrees in Applied Mechanics from Washington University in St. Louis in 1969 and 1970, and then his Ph.D. in Aeronautics and Astronautics from Stanford University in 1974. He has worked at McDonnell Douglas, the U.S. Army Research Labs, Georgia Institute of Technology and Washington University. In addition to his professorship, Dr. Peters is the Director of the Center for Computational Mechanics and Associate Director of the Georgia Tech/Washington University Center of Excellence for Rotorcraft. He has served as Editor-in-Chief of the *Journal of the American Helicopter Society* and is presently a Member of the Board of Directors of the American Helicopter Society.

MIKE ROBERTS

*Weathercast-Weather Anchor
KSDK News Channel 5
St. Louis, MO*

Mike graduated from Creighton University with a B.S. degree majoring in Atmospheric Sciences in 1989. He also has a B.A.A. in Broadcast Journalism. Mike joined KSDK News Channel 5 in 1996. Prior to that, he worked at KSHB-TV in Kansas City, KMOV-TV in St. Louis and WOWT-TV in Omaha. In addition to his responsibilities at KSDK he is and adjunct instructor at St. Louis University in the Department of Earth and Atmospheric Sciences. In 2004, 2006, 2007, and 2008 Mike was awarded Emmy's for best Weathercast-Weather Anchor.

Mike is also a hospice volunteer and works with Minds Eye, which is a radio service for those with sight disabilities.

GENE E. ROBINSON, Ph.D.

**Professor of Entomology
University of Illinois at Urbana-Champaign**

Dr. Robinson obtained his Ph.D. in entomology from Cornell University in 1986. He joined the faculty of the University of Illinois at Urbana-Champaign in 1989 and holds a University Swanlund Chair.

In addition, Dr. Robinson is the Director of the University of Illinois Bee Research Facility; Director of the Neuroscience Program; leader of the Neural and Behavioral Plasticity Theme at the Institute for Genomic Biology; and a professor of entomology with affiliate appointments in the Departments of Cell & Developmental Biology, Natural Resources & Environmental Sciences, and Animal Biology and in the Beckman Institute of Science and Technology.

He is the author or co-author of over 200 publications, pioneered the application of genomics to the study of social behavior, led the effort to gain approval from the National Institutes of Health for sequencing the honeybee genome, and heads the Honey Bee Genome Sequencing Consortium. Dr. Robinson has made a wide range of fundamental advances in elucidating the

endocrine, neural, and genetic regulation of behavior at the individual and colony levels in honeybees. He has significantly advanced the understanding of the role of genes, hormones, and neurochemicals in the mechanisms and evolution of social behavior. Dr. Robinson's honors include: University Scholar and member of the Center of Advanced Study at the University of Illinois; Burroughs Wellcome Innovation Award in Functional Genomics; Founders Memorial Award from the Entomological Society of America; Fulbright Senior Research Fellowship; Guggenheim Fellowship; Fellow, Animal Behavior Society; Fellow, American Academy of Arts & Sciences; and member of the US National Academy of Sciences.

RICHARD SAYRE, Ph.D.

Director of the Enterprise Rent-A-Car Institute for Renewable Fuels

Donald Danforth Plant Science Center

St. Louis, MO

Director, Center for Advanced Biofuel Systems

Dr. Sayre received his Ph. D. from the University of Iowa in 1978 and did post-doctoral work at Harvard University. He has served in his current position since 2008 and in 2009, initiated his work with the Center for Advanced Biofuel Systems, a DOE-Energy Frontier Research Center focusing on metabolic engineering of algae and camelina for oil production. Dr. Sayre also serves as the Director of the BioCassava Plus (2005-2010) program funded by the Bill and Melinda Gates Foundation.

Prior to moving to the Danforth Center, Dr. Sayre was a Professor in the Department of Plant Cellular and Molecular Biology at the Ohio State University and served six years as the Chair. Dr. Sayre was the co-founder and past president of Phycotransgenics LLC and is currently Chief Technology Officer for Phycal LLC, a biofuel development company. Dr. Sayre also serves on the editorial board of *Photosynthesis Research*. He spent the spring of 2007, at the University of Sao Paulo as a Fulbright Scholar in the Department of Chemistry and Biochemistry working on microalgal biotechnology. From 2005-2008 he was the College of Biological Sciences Distinguished Professor, and in 2006, Dr Sayre was elected as an honorary member of Phi Beta Kappa. He is the author of over 90 publications in a diverse range of the biological sciences ranging from the biophysics of photosynthesis, to the bioremediation of toxic wastes, quorum sensing, and food crop biofortification. In December 2008, *Nature* identified Dr. Sayre as one of "Five Crop Researchers Who Could Change the World" (*Nature* 456: 563-569, 2008) based on the accomplishments of the BioCassava Plus team.