

SPEAKER BIOGRAPHIES

“Avian Flu: What Can We Do?”

A Symposium

Friday, January 13, 2006

8:30 AM to 5:00 PM

University of Maryland School of Law

Baltimore, Maryland



SHERRY B. ADAMS

Mrs. Adams currently serves as the Assistant Senior Deputy Director of the Emergency Health and Medical Services Administration (EHMSA) for the District of Columbia Department of Health. In this capacity, Mrs. Adams is responsible for assuring an effective and coordinated system of emergency health and medical services. Her duties include assuring appropriate emergency preparedness, development of emergency response plans for the Department, and coordination of response plans and activities across local, regional and federal government jurisdictions.

During her tenure as the Administrator for the EHMSA, Mrs. Adams was responsible for the development of the Department's first Bioterrorism Response Plan, and the first Department of Health National Pharmaceutical Stockpile (NPS) Plan. She also coordinated all DOH emergency response operations including response to public health emergencies, disasters and weapons of mass destruction (WMD) incidents, and served as the Bioterrorism Coordinator for the Department Health. Mrs. Adams also served as the Department of Health liaison to the District's Emergency Management Agency and was responsible for the development of the Emergency Support Function (ESF) #8, Health and Medical section of the District's Response Plan.

In addition to her accomplishments in planning and coordination of activities, Mrs. Adams is experienced in all aspects of operational medical response. During the Anthrax incidents in the fall of 2001, she coordinated the District's public health operations including the mass prophylaxis dispensing operation and the 24-hour emergency call center. During that time she provided support for more than 100 CDC responders and assisted in the aggressive public information campaign.

Ms. Adams is a Registered Nurse with more than 20 years experience in emergency department and trauma nursing.

JOHN BEIGEL

Dr. John Beigel received his medical training at the Medical College of Ohio. After completing his residency at the University of Cincinnati, he completed a fellowship in Infectious Disease at the Massachusetts General Hospital in Boston, MA, and a second fellowship in Critical Care Medicine at the National Institutes of Health (NIH), Bethesda, MD. Since completing his fellowship, he has been a staff clinician at the NIH. His research interests are primarily focused around clinical research in emerging infectious diseases. During the SARS outbreak, he was the principle investigator of a protocol to develop a SARS hyper-immune globulin (IVIG). In the last two years, his interest has turned to influenza and he has developed protocols for early clinical work on novel influenza therapeutics, as well as developed international clinical protocols in collaboration with the World Health Organization for the study of influenza including avian influenza. Through this effort, Dr. Beigel was the lead author on a paper published in the *New England Journal of Medicine* entitled "Avian influenza A (H5N1) infection in humans" summarizing the clinical cases of avian influenza through September 2005.

BARBARA PFEFFER BILLAUER

Ms. Billauer is the President of the Foundation for Law and Science Centers, Inc., a non-profit educational program dedicated to teaching legal evaluation of scientific evidence to the judiciary and policy decision-makers. An experienced trial lawyer (concentrating on complex scientific cases, such as products liability, medical malpractice, environmental law and toxic torts) and educator (Adjunct Professor, NYU; Faculty and the State University of New York Medical School at Stony Brook), she currently teaches Scientific Evidence at the University of Maryland School of Law. In addition to a B.S. (Biology/Science Education; (Hons. Cornell University) and law degree (J.D., 1975) from Hofstra University, she has a Master's degree in Occupational Health, (N.Y.U.) and has completed doctoral qualifying exams and dissertation research in Public Health at Johns Hopkins University. She has also earned a graduate certificate in Risk Sciences and Public Policy, been certified by the EPA as an Asbestos Inspector and Management Planner, and qualified for membership in the British Society of Occupational Hygiene, the American Society of Microbiology, and the American Society of Safety Engineers. She was elected as a Fellow of the American Bar Foundation, which is limited to 1/3 of 1% of lawyers in each state.

An expert on reconciling scientific evidence with policy imperatives, she lectures frequently on Bioterrorism, integrating scientific, legal, practical, and socially responsible concerns. Noted amongst her presentations are conferences sponsored by Sandia National Laboratories, the Army College of Applied Biostatistics and the American Society of Industrial Security. As founding member of the International Council of Shopping Center's (ICSC) Task Force on the Environment, she has long been involved in the interplay among law, health assessment and protection and responsible ethics in scientific research. She has been a member of the Institutional Review Board (CHR) at Johns Hopkins School of Public Health, and completed a Fellowship in Bioethics at Washington Hospital Center.

Her past civic activities include: President of the Metropolitan Women's Bar Association, Vice President of the National Conference of Women's Bar Associations, and member of the Board of Directors of the American Committee of the Weizmann Institute of Science.

Ms. Billauer was an editor of the National Journal of Asbestos-In-Buildings, and co-authored "Environmental Law for Lenders -- Risks & Liabilities," published by Matthew Bender, along with 3 book chapters and numerous articles. She has also authored creative training and original teaching materials used in teaching the judiciary and law students. Her novel method for teaching an understanding of the scientific method, and analyzing scientific evidence to those charged with policy decision-making, is patent pending.

RICHARD A. BISSELL

Dr. Richard Bissell has been an Associate Professor, Emergency Health Services, at the University of Maryland, Baltimore County (UMBC) since 1999 and a Clinical Associate Professor at the University of Maryland School of Medicine, Department of Epidemiology and Preventive Medicine since 2002. He is also the PI on a project to develop a computerized model

of EMS response to disasters to be used as a tool for both planning and research objectives. Dr. Bissell has served as a consultant to the U.S. Centers for Disease Control and Prevention for evaluation of emergency public health preparedness, the Maryland Department of Health and Mental Hygiene for emergency preparedness training and evaluation, and the Federal Emergency Management Agency on disaster medical response guidelines. In addition, Dr. Bissell has published and presented numerous articles and papers on disaster and emergency health preparedness, response, and management. He also serves as a member of the Editorial Board for *Prehospital and Disaster Medicine*, as well as a reviewer for *Annals of Emergency Medicine*. Dr. Bissell received his Ph.D. in 1984 from the University of Denver with a special focus on international public health, an M.S. degree from the University of Colorado Health Sciences Center in Preventive Medicine/Health Administration, and an M.A. degree from the University of Denver in International Studies.

DAVID BLYTHE

David Blythe is a medical epidemiologist at the Maryland Department of Health and Mental Hygiene (DHMH). A native North Carolinian, he received his undergraduate and medical degrees from the University of North Carolina at Chapel Hill and completed training in Internal Medicine and in Public Health and General Preventive Medicine at the University of Washington, where he also obtained a Masters of Public Health degree. He subsequently served as an Epidemic Intelligence Service (EIS) Officer with the Centers for Disease Control and Prevention, assigned to the Maryland DHMH's Epidemiology and Disease Control Program. After completing the EIS program, Dr. Blythe joined the DHMH communicable disease control program, where he currently serves as the State Epidemiologist. Dr. Blythe has been involved in influenza pandemic planning at DHMH since 1999.

JAMES D. CAMPBELL

Dr. Campbell earned his medical degree from Columbia University College of Physicians and Surgeons and then completed his Pediatric residency at the National Naval Medical Center in Bethesda, MD. While in the US Navy, he practiced General Pediatrics at the Guam Naval Hospital, Bethesda Naval Hospital, and Walter Reed Army Medical Center, and served as Assistant Professor in Pediatrics at the Uniformed Services University of the Health Sciences. He then completed his Pediatric Infectious Disease fellowship at the University of Maryland, focusing on the vaccine development. He now serves on the faculty at the University of Maryland School of Medicine within the Department of Pediatrics and the Center for Vaccine Development. He currently practices clinical Pediatric Infectious Diseases, teaches students, residents, and fellows, and performs research. His research focuses on clinical trials of vaccines in development and on the epidemiology of vaccine-preventable diseases among children living in Africa. He is the principal investigator for three avian influenza trials being performed here in Maryland among healthy adults and children.

JULIE CASANI

Dr. Julie Casani is the Director of the Office of Public Health Preparedness and Response at the Maryland Department of Health and Mental Hygiene. Her office was lead on the anthrax events

of 2001, implements a number of enhanced health surveillance systems for Bioterrorism, developed and implemented the Smallpox Preparedness and Response Program, and provides public health emergency preparedness expertise to the various programs in DHMH. Additionally, she was on the design team for the National Capitol Region Syndromic Surveillance Project. She has been a policy and health practice consultant to several national workshops and committees in Weapons of Mass Destruction for Federal and State agencies. Additionally, she has served as an instructor and subject matter expert in many forums across the country.

Dr. Casani practiced clinical Emergency Medicine in the Baltimore from 1983 until 2001, serving on the Disaster Preparedness Committee at three hospitals in the area. She has been actively involved in Emergency Medical Services since the 1970's serving at every level from ambulance provider to an appointed member of the State EMS Board.

Dr. Casani received her Medical Degree from New York University School of Medicine and her Masters in Public Health from Johns Hopkins School of Public Health and Hygiene.

JAMES P. CHAMBERS

James P. Chambers is currently Professor of Biochemistry, Department of Biology, the University of Texas at San Antonio (UTSA). Dr. Chambers holds a doctorate in Biochemistry from the University of Texas Health Science Center at San Antonio (1975). He was an NIH postdoctoral training fellow in the Department of Biochemistry, the University of Pittsburgh School of Medicine (1976-1978) and completed his postdoctoral training in the Department of Biochemical Genetics, Washington University School of Medicine, St. Louis, MO (1978-1979). Prior to his coming to UTSA in 1984, Dr. Chambers was the Director of the Metabolic Disease Laboratory of the Department of Pediatrics, the University of Texas Health Science Center at Houston (1979-1984). Since joining the UTSA faculty, Dr. Chambers has been active in the research laboratory as well as the classroom, teaching Biochemistry at both the undergraduate and graduate level. In 1992, Dr. Chambers implemented the University's first doctoral program, a Ph.D. in Biology with an emphasis in Neurobiology and served as supervising professor for its first two Ph.D. recipients. Dr. Chambers has published widely in peer-reviewed scientific journals and has received numerous awards in recognition of his research work. In 2004, Dr. Chambers was appointed Director, The Center of Excellence in Biotechnology, Bioprocessing, Education and Research.

MICHELLE S. DAVIS

Michelle S. Davis was appointed Deputy Secretary for Health Planning and Assessment for the Pennsylvania Department of Health in August 2003. In this role she serves as a senior advisor to the Secretary of Health and she manages a portfolio that includes the state laboratory, health planning, emergency medical services, epidemiology, community health and public health preparedness. These important statewide programs conduct many activities that include immunizing the community and providing health education, performing diagnostic testing on human specimens for biological and chemical agents, assisting with placement of clinicians in medically underserved areas of the state, conducting surveillance and outbreak investigations,

developing and standardizing training for EMS practitioners, and upgrading local, regional, state and hospital preparedness for and response to bio-terrorism, other outbreaks of infectious diseases and other public health threats and emergencies. Deputy Secretary Davis has worked as a public health professional in a variety of positions at the federal, state and municipal levels. Before arriving in Harrisburg she was a deputy health commissioner for the City of Philadelphia for three years, and senior epidemiologist for the Centers for Disease Control and Prevention for over nine years. She has also worked for the states of South Carolina, Indiana and New York and at the municipal level with the City of Detroit and as a federal assignee with the District of Columbia. Her undergraduate education was obtained at the University of Michigan and her Masters' and Doctoral training in epidemiology at the University of South Carolina, Johns Hopkins and University of North Carolina.

JAMES "SEAMUS" P.G. FLYNN

James P.G. Flynn, M.D. (Seamus) is Chair of the Disaster Preparedness Task Force at MedChi, where he is also a member of the Board of Trustees and Secretary of the Society. He is also Vice-President of Medical Affairs at the University Specialty Hospital of the University of Maryland Medical Center. His major interest is healthcare organization, spinal cord rehabilitation, and community epidemiology.

Additionally, Dr. Flynn was activated as a Brigadier General in the Maryland Defense Force/National Guard, and participated in a leadership role in the early phases of the Katrina recovery initiatives in New Orleans. He also places significant emphasis on the coordination of initiatives between community-based practitioners and the academic medical center. In the past, he was the director of the Maryland Institute for Emergency Medical Services Systems (Shock Trauma/EMS). Dr. Flynn has a major track record in the management of chronic lung disease during its acute phase and in the epidemiology of the transmission of respiratory illness.

MICHAEL GREENBERGER

Michael Greenberger is the Director of the Center for Health and Homeland Security (CHHS) at the University of Maryland and a professor at the School of Law. CHHS and the six constituent professional schools which form its core (the University of Maryland Schools of Medicine, Law, Dentistry, Pharmacy, Nursing and Social Work) work on a broad range of legal, policy and scientific issues pertaining to the health policy aspects of counterterrorism. CHHS has a staff of 17 professionals who work on a broad range of homeland security and emergency response issues for federal, state, and local governmental agencies, as well as medical researchers. More information about CHHS can be found at: www.umaryland.edu/healthsecurity.

Professor Greenberger designed and teaches two courses focused on counterterrorism and emergency response: "Homeland Security and The Law of Counterterrorism," which will be taught in the Law School for the sixth time this coming semester; and "Homeland Security: Emergency Response to Natural and Man Made Disasters," bringing students and faculty from the various university professional schools together to study effective governmental policies pertaining to catastrophic public health emergencies. Professor Greenberger also teaches

Constitutional Law at the Law School and is a recognized expert on constitutional issues pertaining to federalism.

In 1999, Professor Greenberger began service as Counselor to the United States Attorney General, and then became the Justice Department's Principal Deputy Associate Attorney General. Included within his portfolio of responsibilities were several counterterrorism projects concerning both law enforcement and public health policy, including organizing a nationwide counter terrorism war game ("TOPOFF I").

Prior to entering government service, Professor Greenberger was a partner for over 20 years in the Washington, D.C. law firm of Shea & Gardner, where he served as lead litigation counsel before courts of law nationwide, including the United States Supreme Court.

In 1997, Professor Greenberger left private practice to become the Director of the Division of Trading and Markets at the Commodity Futures Trading Commission. In that capacity, he was responsible for supervising exchange traded futures and derivatives. He also served on the Steering Committee of the President's Working Group on Financial Markets, and as a member of the International Organization of Securities Commissions' Hedge Fund Task Force. He has frequently been asked to speak both in the media and at academic gatherings about issues pertaining to financial regulation, and has appeared on the ABC Evening News, The Jim Lehrer News Hour, and C-Span to discuss financial issues arising out of the Enron, Arthur Anderson, and WorldCom, and Refco failures.

Professor Greenberger is a Phi Beta Kappa graduate of Lafayette College and the University of Pennsylvania Law School, where he served as editor-in-chief of the Law Review. He is a member of the American Law Institute and he has served on the Board of Governors of the D.C. Bar and as a board member of three nonprofit public interest organizations. Professor Greenberger has also served on the D.C. Circuit Advisory Committee on Procedures and as a mediator for the United States Courts for the District of Columbia.

Professor Greenberger writes about, and appears frequently in the media on, counterterrorism, public health, and constitutional law issues.

ELIN GURSKY

Elin Gursky, Sc.D., is the Principal Deputy for Biodefense in the National Strategies Support Directorate of ANSER/Analytic Services (Arlington, VA) where she focuses on biodefense and health security issues. From 1986 through 1998, Dr. Gursky held senior executive positions in local and state public health agencies in Maryland and New Jersey. In 1999 she accepted the position of Vice President for Public Health for a 10-hospital acute care health system, where she worked to bridge the practice gaps between medicine and public health. Previous to her arrival at ANSER in September 2002, Dr. Gursky completed a one-year fellowship at the Johns Hopkins Center for Civilian Biodefense Strategies.

An epidemiologist, Dr. Gursky received a Doctor of Science degree ('85) from the Johns Hopkins University Bloomberg School of Public Health. She has extensive experience applying

mass population-protection strategies to mitigate large-scale epidemics, including epidemiological investigations and outbreak control, pre- and post-event vaccination, post-exposure prophylaxis, and risk assessment and communication. Dr. Gursky has held faculty positions at Johns Hopkins University, and has developed curriculum, taught courses, and guest lectured in the areas of public health practice and biodefense policy. She has contributed to the development of national health policy, testified before congressional subcommittees, and helped promulgate state health legislation. Dr. Gursky has advised top officials from the Department of Homeland Security, Northern Command (NORTHCOM), and the Joint Task Force–Civil Support on their interface with the civilian sector on issues pertaining to bioterrorism preparedness and response.

Dr. Gursky's recent publications include *Epidemic Proportions: Building National Public Health Capabilities to meet National Security Threats*; *Drafted to Fight Terror: U.S. Public Health on the Front Lines of Biological Defense*; *The Threat of Smallpox: Eradicated But Not Erased*; *Hometown Hospitals–The Weakest Link? Bioterrorism Readiness in America's Rural Hospitals*; *Progress and Peril: Bioterrorism Preparedness Dollars and Public Health*; and *Anthrax 2001: Observations on the Medical and Public Health Response*.

JAMES KING

James Craig King, Jr., M.D. joined the faculty of the University of Maryland School of Medicine in 1989 and is now a Professor of Pediatrics and Chief of the Division of General Pediatrics at the University of Maryland. In addition, he has a co-appointment in the Center for Vaccine Development at the University of Maryland. Dr. King's primary clinical research interest is in childhood vaccines, especially vaccines against influenza, parainfluenza, and RSV. Over the last three years, Dr. King has been investigating the downstream effect of vaccinating elementary school children against influenza in their schools in cooperation with the Carroll County Health Department and Carroll County public schools and more recently extending this school-based influenza immunization program as the lead investigator in a national multi-center trial. Dr. King received his M.D. from and completed his pediatric residency at the University of Maryland, Baltimore, Maryland. He also completed one year of Adult Infectious Disease at the University of Maryland, three years of Pediatric Infectious Disease training at Vanderbilt University Medical Center, and his first post-fellowship faculty position at the Johns Hopkins University School of Hygiene and Public Health.

ROLAND A. LEVANDOWSKI

Roland A. Levandowski, M.D. is Chief, Influenza, SARS, and Other Viral Respiratory Diseases Section, Respiratory Diseases Branch, Division of Microbiology and Infectious Diseases, NIAID, NIH. Dr. Levandowski received his BS in Medicine and MD degrees from Northwestern University. He completed training in Internal Medicine at Northwestern University and in Infectious Diseases at the University of Illinois at Chicago. He is Board Certified in Internal Medicine and Infectious Diseases. Before joining NIAID in 2005, Dr. Levandowski was a Supervisory Medical Officer in the Division of Viral Products of the Office of Vaccines Research and Review, Center for Biologics Evaluation and Research, FDA, where he directed the influenza laboratory. His areas of expertise and research interest include influenza and other

respiratory viruses, vaccines, antiviral agents and diagnostic methods. Dr. Levandowski has served for many years as a Temporary Advisor to the World Health Organization for matters related to influenza virus surveillance and vaccine preparation, and as a member of Public Health Service committees tasked with preparing plans to meet the challenges of pandemic influenza.

JAMES H. MAGUIRE

James H. Maguire is the Director, Division of International Health, Department of Epidemiology and Preventive Medicine, at the University of Maryland Medical Center. Dr. Maguire is the Section Editor, *American Journal of Tropical Medicine and Hygiene*, and is on the Steering Committee on Chagas Disease, TDR, World Health Organization. Dr. Maguire also served as the Chief, Parasitic Diseases Branch, Division of Parasitic Diseases, National Center for Infectious Diseases (NCID) at the Centers for Disease Control and Prevention (CDC) in Atlanta, GA, the Director, WHO Collaborating Center for Research, Training, and Eradication of Dracunculiasis, NCID, CDC, in Atlanta, GA, and as a member of the WHO Expert Team on SARS, Beijing, Guangdong Province, Shanghai Hebei Province, Henan Province. The recipient of numerous awards, including the Ben Kean Medal from the American Society of Tropical Medicine and Hygiene and teaching awards from Harvard Medical School and Harvard School of Public Health, Dr. Maguire received his M.D. from Harvard Medical School and his M.P.H. from Harvard School of Public Health. Dr. Maguire has published over 135 original reports, reviews, and chapters.

MATTHEW PAYNE

Matthew Payne joined the CNA Corporation as a Senior Advisor on public health emergency preparedness matters in November 2005. Prior to joining CNA, Mr. Payne served as the Deputy Director for Operations within the U.S. Department of Health and Human Service (HHS), Office of Public Health Emergency Preparedness, Office of Emergency Operations and Security Programs.

In this role, Mr. Payne was responsible for the day-to-day oversight and management of the Department's preparedness and response to both natural and man-made disasters, including the operation of the Secretary's Operations Center. During his tenure, Mr. Payne contributed to and managed the development of HHS' input to the National Response Plan (Emergency Support Function #8), the National Incident Management System, the National Preparedness Goal and several major exercises, including the Top Officials series.

Mr. Payne continues to work on public health and medical emergency preparedness issues at CNA. His current efforts are focused on the inherent roles, and responsibilities of governmental and non-governmental originations in preparing for and responding to catastrophic disasters.

DANIEL PEREZ

Dr. Daniel Perez obtained his BSc/MS from the National University of Cordoba, Argentina in 1989 and completed his PhD in the Department of Veterinary and Biomedical Sciences at the University of Nebraska, Lincoln, Nebraska in 1995. In March 2000, Dr. Perez joined the laboratory of Dr. Robert Webster at St. Jude Children's Research Hospital. Dr. Perez has been

studying virus-virus and virus-host protein interactions of influenza virus and bovine viral diarrhea virus. His current interests include the interspecies transmission, pathogenesis, and evolution of avian influenza viruses and the role of cross-protective immunity in the spread of highly pathogenic avian influenza viruses to other birds and mammals.

MARY-CLAIRE ROGHMANN

Dr. Roghmann is an infectious disease physician and epidemiologist studying emerging pathogens and healthcare acquired infections. She received her M.D. from the Johns Hopkins University School of Medicine and her M.S. from the Department of Epidemiology and Preventive Medicine at the University of Maryland. Dr. Roghmann is now Head of Division of Health Care Outcomes Research and an Associate Professor in the Department of Epidemiology and Preventive Medicine in University of Maryland School of Medicine. For the past nine years, she has been the Hospital Epidemiologist for the VA Maryland Health Care System. In this role, she has promoted influenza vaccination among patients and staff, provided surveillance for influenza in the long-term care units and managed influenza outbreaks in the healthcare setting.

PHILIP RUSSELL

Retired Major General Philip K. Russell, M.D. served in the U. S. Army Medical Corps from 1959 to 1990 pursuing a career in infectious disease and tropical medicine research. Following his training in internal medicine he served in a succession of research assignments at Walter Reed Army Institute of Research and overseas laboratories in Pakistan, Thailand and Vietnam. Dr. Russell conducted laboratory and clinical research on a variety of viral and parasitic infectious diseases including dengue, malaria, hepatitis and respiratory viruses. His studies of dengue hemorrhagic fever in Thai and Vietnamese children lead to greater understand of the pathogenesis of this severe public health threat. He authored or coauthored over 100 research publications and contributed to the successful development of several vaccines important to the military and to public health including adenovirus vaccine, meningitis vaccine, and hepatitis A and B vaccines. During his assignment as Director of Walter Reed Army Institute of Research he was a leader in research on vaccines against dengue and malaria. In his last military assignment as Commander of the U.S. Army Medical Research and Development Command he led a major effort in to increase the capability of to defend the armed forces against biological agents.

Following his military service, Dr. Russell joined the Johns Hopkins School of Public Health as Professor of International Health and worked closely with the World Health Organization as the Special Advisor for the Children's Vaccine Initiative, an international initiative to improve vaccines for children in the developing world. Recognizing the need for action against AIDS, he was a founding board member of the International AIDS Vaccine Initiative. After becoming Emeritus Professor in 1997, Dr. Russell served as an advisor to the Bill and Melinda Gates Foundation and was instrumental creating the Malaria Vaccine Initiative, and now serves as an advisor for several vaccine programs.

During his career, Dr. Russell has served on numerous advisory boards of national and international agencies. He served on the Board of Scientific Councilors of the Centers for

Disease Control and on several committees and boards for the Institute of Medicine. He currently serves on the Board of Directors of the International Vaccine Institute and the Board of Trustees of the Albert B. Sabin Vaccine Institute.

Following the anthrax attacks in 2001, Dr. Russell was asked by Secretary Thompson to lead an effort at the Department of Health and Human Services to develop and stockpile vaccines and other medical countermeasures against bioterrorism agents. He supervised the program to develop and stockpile smallpox vaccines, botulism antitoxins and anthrax vaccine and directed the initial acquisitions under Project BioShield.

STEVEN SALZBERG

Dr. Steven Salzberg is the Director of the Center for Bioinformatics and Computational Biology (CBCB) and the Horvitz Professor of Computer Science at the University of Maryland, College Park. From 1997 to 2005 he was at The Institute for Genomic Research (TIGR) in Rockville, Maryland, where he was the Senior Director of Bioinformatics, and he continues to hold an adjunct appointment there. Dr. Salzberg received his B.A., M.S., and M.Phil. degrees from Yale University, and his Ph.D. in Computer Science from Harvard University. Following his Ph.D. studies, he joined the Computer Science Department at Johns Hopkins as an Assistant Professor in 1989. He was promoted to Associate Professor in 1996 and to Research Professor in 1999. In 1997 he joined TIGR as an Investigator in the Bioinformatics Department, and he assumed the role of Director of Bioinformatics in 1998.

Dr. Salzberg began working in genomics in the early 1990's, when he developed one of the first computational gene-finding systems for the human genome. His initial collaborations with TIGR at that time led to the development of a gene-finding program that was subsequently used in the analysis of the genomes of *Borrelia burgdorferi* (the Lyme disease bacterium), *Treponema pallidum* (the syphilis bacterium), *Mycobacterium tuberculosis*, *Vibrio cholerae*, *Bacillus anthracis* (anthrax), and over 50 more bacterial and viral species. Dr. Salzberg and his research team have developed eukaryotic gene finders for the human genome, *Plasmodium falciparum* (the malaria parasite), the model plant *Arabidopsis thaliana*, rice, *Cryptococcus neoformans*, *Brugia malayi*, and other species. His group has also developed systems for large-scale genome sequence alignment and genome assembly, and they are currently working on an open-source genome assembler, AMOS. Their open-source systems have been distributed to thousands of scientific laboratories around the globe. In addition to his software systems, Salzberg has contributed analyses to many genome sequencing projects, using computational methods to analyze genome duplications, rearrangements, and other evolutionary phenomena in a wide range of organisms. His current genomics projects include sequencing and analysis of multiple strains of *Bacillus anthracis* and of the human and avian influenza viruses.

Dr. Salzberg has authored or co-authored two books and over 130 publications in leading scientific journals. He is a Fellow of the American Association for the Advancement of Science, an Associate Editor for six journals, and a member of the Board of Scientific Councilors of the National Center for Biotechnology Information at NIH.

RAHUL SINGHVI

Dr. Rahul Singhvi was appointed President and CEO of Novavax in August, 2005. He joined the Company in April, 2004 as Vice President, Pharmaceutical Development and Manufacturing Operations and was appointed Senior Vice President and Chief Operating Officer in April, 2005. He is charged with restructuring the company to focus on its core competency of new product development and innovation and drive shareholder value. Prior to joining Novavax, Dr. Singhvi spent 10 years with Merck & Co, most recently serving as Director of Vaccine and Sterile Operations in the Merck Manufacturing Division. In this position Dr. Singhvi was responsible for operating a manufacturing unit producing a new biological product and initiating the start up of a second biological product manufacturing unit. In addition to his functional expertise within process development and manufacturing, Dr. Singhvi was a recognized leader within Merck & Co., Inc. for the depth and breadth of his expertise, and led several cross-functional teams responsible for technology transfer and development of new products

Dr. Singhvi holds several patents in the area of cell culturing systems and has co-authored numerous publications, book chapters, and abstracts on biochemical engineering and cell physiology.

CHRISTA-MARIE SINGLETON

Dr. Christa-Marie Singleton is currently the Chief Medical Director for the Baltimore City Health Department's (BCHD) Office of Public Health Preparedness and Response (OPHPR). She is the executive medical/clinical advisor to the Baltimore City Health Commissioner and Baltimore City's OPHPR, coordinating all emergency preparedness and response operational activities respective to infectious disease outbreak activities. She is the public health liaison for City agency/department heads, Hospital Presidents/CEOs and Emergency Department Directors, Infection Control Department Heads, state and local Health Departments, and Mayoral executive staff. She directs and oversees the Department's Centers for Disease Control and Prevention (CDC) Public Health Emergency Preparedness grant and the Department of Homeland Security's (DHS) Metropolitan Medical Response Team grant, coordinates and implements city/regional public health emergency preparedness exercises, including the nationally recognized "Harbor BASE (Biological Attack Simulated Exercise)" series, supervises the Department's biosurveillance system project and is the appointee for the Mayoral Joint Executive Committee for Homeland Security where she provides public health training and information to the Mayor's Security Council.

Prior to this, Dr. Singleton was the Director of Public Health Emergency Preparedness at the Baltimore County Department of Health. In this role, she provided coordination and evaluation of planning and implementation of all public health preparedness and response activities within the Department. Dr. Singleton has also served as the Director of the Bureau of Disease Control at the Baltimore County Department of Health where she oversaw the Divisions of Animal Control, Communicable Diseases, Public Health Dentistry, Medical Environmental Health, Women's Cancer Protection Program, and two programs from the Maryland Tobacco settlement. Before going to Baltimore County, Dr. Singleton was the Senior Analyst for Maternal and Child Health at the Association of State and Territorial Health Officials in Washington, DC. She also

has worked as a Senior Analyst for the AIDS Policy Center for Children, Youth, and Families in Washington, DC.

Dr. Singleton received her BS in Microbiology from the University of Notre Dame in South Bend, IN, her MD from the University of Louisville in Louisville, KY, and her pediatric residency training at the Thomas Jefferson University and the duPont Hospital for Children in Wilmington, DE and Philadelphia, PA. She completed her MPH at Johns Hopkins University School of Hygiene and Public Health by in 1996 while working as a pediatric emergency room physician at St. Agnes Hospital and was an Instructor with the Johns Hopkins University School of Medicine, supervising medical students during their training at a community hospital.

GARY SMITH

Dr. Gary Smith is a native of California and received his Pharm.D. degree from the University of California at San Francisco in 1966. Prior to that he completed his pre-pharmacy requirements at the University of California, Davis and San Francisco State University. Dr. Smith completed a residency in Hospital Pharmacy Practice at the U.S. Public Health Hospital in Seattle, Washington in June 1967. This was followed by serving as Deputy Director of Pharmacy at the U.S. Public Health Indian Hospital at Belcourt, North Dakota. He served as a staff pharmacist at the Mercy General Hospital in Sacramento, California from 1969-1970 (18 months) while also serving as a Clinical Instructor at the University of California School of Pharmacy in San Francisco. In 1970, he joined the faculty at the University of Washington, School of Pharmacy as the first PharmD faculty member. While at Washington he developed and directed the Drug Information Service. In 1982 Dr. Smith joined the faculty at the University of Arizona as an Associate Professor and Director of the Drug Information Center. He was at Arizona for 15 years. At Arizona he also served as manager of clinical pharmacy services at the University Medical Center. Dr. Smith was also a clinical pharmacist for infectious disease and precepted pharmacy students and residents during their infectious disease rotations at University Medical Center. Dr. Smith also served as an Assistant Department Head for Clinical Education at the College of Pharmacy. Dr. Smith left Arizona, where he had attained the rank of Professor with tenure, in 1997 to assume the position of Professor and Chair of the Department of Pharmacy Practice and Science at the University of Maryland, Baltimore, Maryland.

Since 2003, Dr. Smith has returned to teaching and practice. He is currently providing pharmacotherapy consultation and medication management at the University of Maryland's HIV Clinic. Dr. Smith has had extensive involvement with the formulary process including medication use evaluation. He has a special interest in infectious disease and teaches the majority of the infectious disease topics in the professional doctoral curriculum at Maryland. Dr. Smith has over 100 publications in the professional literature and has made numerous presentations at local, state, national and international professional meetings. Dr. Smith has had extensive experience with academic pharmacy over a 30-year period. He has also had a vast experience as a practitioner educator and more recently academic administration. Dr. Smith is currently the President Elect of the American Pharmacists Association Academy of Pharmaceutical Research and Science and will be installed as president in March 2006.

HAROLD STANDIFORD

Harold C. Standiford, MD, MACP is the Medical Director for Infection Control and Antimicrobial Effectiveness at the University of Maryland Medical Center. He is also Professor of Medicine at the University of Maryland School of Medicine. Dr. Standiford has written extensively on Infectious Disease related articles, antimicrobial agents and topics in Infection Control. He is the former Governor of the American College of Physicians in Maryland.

Since 9/11, Dr. Standiford has been involved at the University of Maryland in developing guidelines and procedures for Emergency Preparedness for bioterrorism and bioevents including anthrax, small pox, SARS, and pandemic influenza.