Infectious Disease Challenges and Threats Outlined at News Conference

The National Foundation for Infectious Diseases (NFID) held its 15th Annual Richard J. Duma/NFID News Conference and Symposium on Infectious Diseases on July 22, 2010. The news conference was presented for the first time via webinar. This activity is named for former NFID president and executive director Richard J. Duma, MD, PhD, currently director of infectious diseases at Halifax Medical Center in Daytona Beach, Florida and director emeritus of NFID.

A panel of renowned presenters provided updates on pandemic H1N1; parents’ attitudes toward immunization; antibiotic resistance in the hospital and community; and progress in prevention and treatment of HIV/AIDS.

Pandemic H1N1 – Lessons Learned

In 2009 H1N1 influenza emerged as a great worldwide infectious diseases threat. The virus contributed to 61 million cases in the United States, causing 275,000 hospitalizations and 12,470 deaths. Overall the H1N1 pandemic had less of an impact than many predicted. Currently the incidence of H1N1 is low and while it is likely that H1N1 activity will pick up this winter, the intensity of each year’s epidemic is difficult to predict. “It’s uncertain what will happen with the virus. We don’t know when the flu season will occur, whether it will be early or late. We don’t know which flu virus will predominate. We will be tracking it very closely,” said Stephen Redd, MD, rear admiral and assistant surgeon general, United States Public Health Service and director of CDC’s Influenza Coordination Unit.

“It is important to maintain our focus and realize that other influenza types could cause a pandemic. We need to ensure that healthcare workers receive an annual influenza vaccine and that efforts to reduce disparities in vaccine coverage are ongoing,” said Dr. Redd.

This year’s influenza vaccine will include strains to protect against H1N1 along with other seasonal strains predicted to be most common. The vaccine should be available in the early fall.

Parents’ Attitudes Toward Immunization: Sorting Out Fact from Fiction

Paul A. Offit, MD, chief of the Division of Infectious Diseases and the Director of the Vaccine Education Center at the Children’s Hospital of Philadelphia provided an update on parents’ attitudes toward vaccines. He presented the facts regarding vaccine safety and described the events that led to the development of many of the anti-vaccine myths circulating today.

The impetus of the anti-vaccine movement began in 1982 with the broadcast of a TV report suggesting that the pertussis vaccine in the trivalent DTP vaccine in use at that time could, in some cases, cause permanent brain damage. Though this report was subsequently refuted, anti vaccine messages continue to this day. Another premise that has been prevalent and proven false is that vaccines cause autism.

Dr. Offit discussed the outbreaks that are prevalent today due to children not being immunized for vaccine preventable diseases including measles, mumps, Haemophilus influenzae infections and pertussis (whooping cough).

Dr. Offit is optimistic that “many of the parents who choose not to vaccinate are concerned and need to have the information communicated in a compelling way, explaining why vaccines are important for preventing disease and in some cases death,” he said. “There will always be resistance as some parents do not trust vaccines and see them as a conspiracy by the government, healthcare providers and pharmaceutical companies to sell vaccine, while others cite religious reasons.”

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Dr. Offit is also the Maurice R. Hilleman Professor of Vaccinology and a Professor of Pediatrics at the University of Pennsylvania School of Medicine.

Antibiotic Resistance: The Hospital and Community

John G. Bartlett, MD, is a professor of medicine in the division of Infectious Diseases at Johns Hopkins University School of Medicine, Baltimore, Maryland. Dr. Bartlett discussed the issues of preventing and controlling antibiotic resistance. He cited antibiotic abuse and the expense and time involved in developing new antimicrobial agents as reasons that few antimicrobials are available for use today. It takes approximately eight years to bring a new drug to market and pharmaceutical companies can’t easily recoup the costs involved in development. These barriers prevent many pharmaceutical companies from developing new products. Dr. Bartlett noted that one of the methods for responding to the crisis is to target new drug development toward some of the most challenging pathogens, including Enterobacter, Staphylococcus aureus, Klebsiella, Acinetobacter, Pseudomonas aeruginosa and Enterococci.

In the coming years the problem of antimicrobial resistance is likely to grow. Dr. Bartlett stated, “what we need is the best use of antibiotics we have available to control infection.” According to Dr. Bartlett we need to offer incentives to pharmaceutical companies for the creation of new antimicrobials. This issue must become a priority involving multiple agencies from around the world in order to develop strategies for combating antibiotic resistance.

The Global HIV/AIDS Pandemic: A Progress Report 2010

Thomas C. Quinn, MD, MSc is Senior Investigator and Head of the Section on International HIV/AIDS Research in the Laboratory of Immunoregulation at the National Institute of Allergy and Infectious Diseases (NIAID). He also serves as associate director for International Research for the Division of Intramural Research at NIAID. Dr. Quinn stated that globally 33.4 million persons are living with the HIV. He noted the high rate of HIV infection among pregnant women in Swaziland and the rising incidence of HIV in Russia, the Ukraine, Jordan and Southeast Asia. In the US 56,000 new HIV infections are detected annually and 1.1 million persons are living with HIV; of that number 21% of unaware of their infection.

“Communication is key,” said Dr. Quinn, adding that “preventive measures should be taught to all who are at risk, and those who are infected require treatment.” A study recently published in The Lancet found a 92% reduction in transmission among individuals.

Dr. Quinn cited a study published in Science in July which found that the use of microbicides has been effective in offering at-risk women some protection against HIV. The results showed that the rate of HIV infection was 39% lower among women who used tenofovir gel versus a placebo gel. Among men, a key factor in reducing the rate of HIV infection in Africa is circumcision.

In closing Dr. Quinn said “multiple approaches must be employed in the battle against HIV infection. Social justice and human rights measures, behavioral changes, biomedical strategies, and highly active HIV treatments are necessary to reduce the impact of HIV infection and prevent its spread.”

View the Webinar

The Richard J. Duma/NFID News Conference and Symposium webinar has been archived on the NFID website. Log onto www.nfid.org to see additional news conference details.

Supporters of the News Conference

The 15th Richard J. Duma/NFID Annual Press Conference and Symposium on Infectious Diseases, was supported, in part, though unrestricted educational grants from Genentech and sanofi pasteur.
14th Annual Conference on Vaccine Research Scheduled in 2011

The National Foundation for Infectious Diseases (NFID) will sponsor the Fourteenth Annual Conference on Vaccine Research: Basic Science-Product Development-Clinical and Field Studies on May 16 – 18, 2011, at the Baltimore Marriott Waterfront Hotel in Baltimore.

The conference is designed to bring together the diverse disciplines involved in the research and development of vaccines. Expert faculty from various disciplines will present the latest vaccine-related scientific data, results, and issues via symposia and panel discussions. The conference plenary sessions will focus on the following topics:

- One Health Initiatives
- Advances and Challenges in the Development of Herpesvirus Vaccines
- Status of HIV Vaccines
- Genomics
- Special Populations in Immunology
- Alternative Animal Models in Vaccine Discovery

The Keynote Lecture, One Health – One Medicine will be delivered by Martyn Jeggo, PhD, Director, Australian Animal Health Laboratory. Ron Germain, MD, PhD, of the National Institutes of Allergy and Infectious Diseases, will deliver the Mary Lou Clements-Mann Memorial Lecture in Vaccine Sciences, Dynamic In Vivo Visualization of the Initiation and Effector Limbs of Adaptive Immune Responses.

The 14th Annual Conference on Vaccine Research will feature the presentation of the Maurice R. Hilleman Early-stage Career Investigator Award, which memorializes the lifetime achievements of Dr. Maurice R. Hilleman in the field of vaccinology. The award recognizes individuals in the early stages of their careers in any field of vaccinology, from basic research through pre-clinical and clinical studies, manufacturing and production, to related research in public health, agriculture, health delivery, policy and regulatory matters. The conference will also include meet the experts breakfast sessions and the presentation of the Sabin Vaccine Institute’s Gold Medal.

The conference is accepting submissions of abstracts for oral and poster presentations at www.nfid.org/conferences/vaccine11. Abstracts must be received by January 24, 2011. The complete preliminary program and online registration may be found at the conference website link.

The conference was developed for researchers, scientists, epidemiologists, microbiologists, immunologists, molecular biologists, physicians and veterinarians, vaccine manufacturers, and public health officials who have an interest in vaccine research. NFID designates this CME activity for a maximum of 16.75 AMA PRA Category 1 Credit™.

Continuing Education credits will be offered for nurses. This 16.75 contact hour Education Activity is provided by National Foundation for Infectious Diseases. The National Foundation for Infectious Diseases is an approved provider of continuing nursing education by the Maryland Nurses Association, an accredited approver by the American Nurses Credentialing Center’s Commission on Accreditation.

Registration fees are $475 prior to March 15, 2010 and $575 after this date. NFID will offer discounted conference admission to medical students, doctoral students, residents, fellows, physician assistants, nurses, and NFID supporting members. For more information about registration or abstract submission, call NFID at (301) 656-0003 x19, fax: (301) 907-0878, e-mail: vaccine@nfid.org or you may visit the NFID website at www.nfid.org/conferences/vaccine11.

Recipient of the 2010 Traveling Professorship in Rural Areas Announced

The National Foundation for Infectious Diseases (NFID) has selected Charles C. Bailey, Jr, MD, FIDSA, private practice physician at Communicable Disease Consultants in Aliso Viejo, California as the recipient of the 2010 Traveling Professorship in Rural Areas. The grant is funded through the NFID Steven R. Mostow Endowment for Outreach Programs, and is intended to provide support for the recipient to provide face-to-face infectious disease education to practicing physicians in rural areas in the recipient’s state of residence or primary practice.

NFID created this grant program to honor the tremendous work of the late Steven R. Mostow, MD, former NFID Vice President. Dr. Mostow often traveled to rural communities to help educate doctors and patients on the latest advances in infectious diseases medicine. He enjoyed bringing nationally renowned visiting professors with him to meet with the front line health care workers in remote areas.

Dr. Bailey’s research interests focus on antibiotic resistance and antibiotic stewardship, antimicrobial formulary considerations, new and emerging pathogens, new antimicrobial agents, empiric antibiotic choices, healthcare-associated infections, isolation practices for resistant pathogens, and compliance with new state mandates regarding infection control and resistant pathogens. His research activities will be conducted in community hospitals and healthcare clinics in rural California counties.
Clinical Vaccinology Courses Scheduled

The National Foundation for Infectious Diseases (NFID) announces its Clinical Vaccinology Course. The course, co-sponsored by the NFID, Emory Department of Medicine, Division of Infectious Diseases and the Emory Vaccine Center will be held November 5 – 7, 2010 at the Hyatt Regency Hotel in Bethesda, Maryland. The course will also be held in Chicago, March 4 – 6, 2011 at the Hyatt Regency Chicago in Chicago, Illinois.

Course collaborating organizations include the American Academy of Pediatrics, the American Academy of Physician Assistants, the American College Health Association, American Society of Health-System Pharmacists, Centers for Disease Control and Prevention, the National Association of Pediatric Nurse Practitioners, and the Society of Infectious Diseases Pharmacists.

The course is specifically designed for primary care physicians, nurses, nurse practitioners, pharmacists, physician assistants, public health specialists, infectious disease specialists and other health care professionals involved with clinical aspects of vaccinology.

The Clinical Vaccinology Course will feature sessions addressing:
- How Vaccines Work
- Special Vaccines Issues
- Adult Immunization
- Childhood and Adolescent Immunizations
- Communication Issues
- Special Topics in Vaccination
- Vaccines in Special Populations
- Updates from the Advisory Committee on Immunization Practices
- Clinical Cases in Vaccinology

Keynote presentations include:
- An overview of Vaccinology – Walter A. Orenstein, MD, Bill and Melinda Gates Foundation
- Global Immunization Disparities: Reaching Every Child – Orin Levine, PhD, Johns Hopkins University

In addition, the course will feature Meet the Experts breakfast sessions to allow attendees an opportunity to network with seasoned colleagues specializing in vaccinology.

The Clinical Vaccinology Course has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education (ACCME). NFID designates this educational activity for a maximum of 16.75 AMA PRA Category 1 Credit(s)™. NFID is an approved provider of continuing nursing education by the Maryland Nurses Association, an accredited approver by the American Nurses Credentialing Center’s Commission on Accreditation. This educational activity has been approved for 16.75 contact hours. The course will also offer pharmacy education credits through PharmCon which is accredited by the Accreditation Council for Pharmacy Education as a provider for continuing pharmacy education.

Online registration is now open for the November course. The cost to attend is $550 prior to September 20, 2010 and $650 after this date. Discounted course registration will be offered to medical students, doctoral students, residents, fellows, physician assistants, nurse practitioners and NFID supporting members. Additional information about the course, including full course agenda and faculty listing, is available on the NFID website, www.nfid.org.
Book Review – One Man, One Medicine, One Health: The James H. Steele Story

Anyone who has met Jim Steele knows he is a giant of a man, literally and figuratively. His many accomplishments in veterinary medicine and public health span almost a century, and are of enormous value to humankind, as well as prescient with regard to emerging infectious diseases. Thus, his recently published biography One Man, One Medicine, One Health: The James H. Steele Story by Craig Nash Carter comes as a welcome addition to the contemporary history of infectious diseases and the role of public health as it evolved over the latter half of the 20th century.

Anyone interested in pursuing an infectious diseases and/or a public health career should read Dr. Steele’s book. It is rich with personal recollections and anecdotes concerning everything from a laboratory accident resulting in an outbreak of brucellosis among his fellow classmates at Michigan State University to his early US Public Health Service years exploring Eastern equine encephalitis (EEE) in horses in Panama. Mr. Carter describes the concurrent epidemic of a strange neurologic syndrome in Panamanian children which turned out not to be EEE, but instead poliomyelitis. Throughout the book, Jim Steele is constantly on the go from one country to another, unraveling the mysteries of both human and veterinary epidemics or enlightening people about the scientific truths important to understanding, controlling and preventing outbreaks of infectious diseases.
What adds spice to this book is the delightful way Dr. Steele’s anecdotes are punctuated with his irrepressible humor. For example, he tells the story of requesting a Western Union message to be sent from Panama to Washington, DC stating Jim Steele and Karl Habel are arriving with two hundred infected sick mice and one man with severe diarrhea. However, the message, somehow scrambled in the process, read: Jim Steele and Karl Habel are bringing back 46 sick men and some sick mice. The tangled up transmission created panic, and when Jim stepped off the airplane in Washington, DC, there were “ambulances as far as the eye could see”.... as Jim put it, “one for each mouse.” (By the way, the “one man with severe diarrhea” was Jim Steele.)

Over the many years that filled Dr. Steele’s fascinating career, the reader is introduced to a plethora of interesting and renowned medical and public health figures, as well as important events that changed the course and direction of today’s public health. Ultimately all of these accomplishments and more contributed to Jim’s concept of “One Medicine” which encourages physicians devoted to human medicine to work closely with those in veterinary medicine to study, understand, and prevent infectious diseases common to all.

The biography of James H. Steele is a “must” read for anyone curious about the events that shaped our current, highly successful, public health programs and ideals. Dr. Steele has left a lasting imprint on our understanding of emerging infectious diseases, and our appreciation for the value of “One Medicine” in this evolving world of never ending medical challenges.

Dr. Steele was an active member of the National Foundation for Infectious Diseases (NFID) Board of Trustees for 18 years, from 1978 through to 1996.

Book review written by Richard J. Duma, MD, PhD, National Foundation for Infectious Diseases (NFID) Director Emeritus and Director of Infectious Diseases at Halifax Health Medical Center in Daytona Beach, Florida.

### Calendar of NFID Events and Meetings

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<tr>
<th>Event</th>
<th>Date</th>
<th>Location</th>
<th>Sponsor</th>
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<tbody>
<tr>
<td><strong>November 5 – 7, 2010</strong> Clinical Vaccinology Course</td>
<td>November 5 – 7, 2010</td>
<td>Hyatt Regency Bethesda</td>
<td>Sponsored by the National Foundation for Infectious Diseases, Emory Department of Medicine, Division of Infectious Diseases and the Emory Vaccine Center</td>
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<tr>
<td><strong>March 4 – 6, 2011</strong> Clinical Vaccinology Course</td>
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<td>Hyatt Regency Chicago</td>
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<td><strong>March 22, 2011</strong> NFID Awards Dinner</td>
<td>March 22, 2011</td>
<td>Ritz Carlton Pentagon City, Arlington, Virginia</td>
<td>Sponsored by the National Foundation for Infectious Diseases</td>
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<td><strong>May 16 – 18, 2011</strong> Fourteenth Annual Conference on Vaccine Research</td>
<td>May 16 – 18, 2011</td>
<td>Baltimore Marriott Waterfront Hotel in Baltimore, Maryland</td>
<td>Sponsored by the National Foundation for Infectious Diseases, Emory Department of Medicine, Division of Infectious Diseases</td>
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<tr>
<td><strong>May 7 – 9, 2012</strong> Fifteenth Annual Conference on Vaccine Research</td>
<td>May 7 – 9, 2012</td>
<td>Hyatt Regency Inner Harbor in Baltimore, Maryland</td>
<td>Sponsored by the National Foundation for Infectious Diseases, Emory Department of Medicine, Division of Infectious Diseases</td>
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For more information about NFID sponsored events and meetings, please contact:

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### Pfizer Young Investigator Award in Vaccine Development

**Wendy W. Yeh, MD** is the recipient of the 2010 Pfizer Young Investigator Award in Vaccine Development. The award provides funding for outstanding research in vaccine development, either through clinical or laboratory investigation, by a candidate who demonstrates commitment to vaccinology as a career.

Dr. Yeh’s research will investigate the development of a SIV/rhesus monkey penile mucosal transmission model. She is a clinical investigator at Beth Israel Deaconess Medical Center.