NIAID Workshop: Dengue Animal Model Development
September 18-19, 2008

Meeting Contact
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Meeting Sponsor
Office of Rare Diseases

Thursday, September 18, 2008

8:30 AM NIAID Welcome Address
Catherine, Laughlin, Ph.D. (NIAID)
8:35 AM NIAID Resources and Opportunities for Dengue Research
Cristina Cassetti, Ph.D. (NIAID)

Session I: Animal Models to Study Dengue Pathogenesis
Chairs: Eva Harris and Rebeca Rico-Hesse

8:50 AM Human Pathogenesis and Mouse Models
Alan Rothman, M.D. (University of Massachusetts Medical School)
9:30 AM Dengue Disease and Immunity in Humanized Mice
Rebeca Rico-Hesse, Ph.D., M.P.H. (Southwest Foundation for Biomedical Research)
Dengue Viral Pathogenesis and Immune Response in Humanized (RAG-hu) Mice
Ramesh Akkina, Ph.D. (Colorado State University)
10:00 AM Morning Break
11:00 AM The AG129 Mouse Model for Dengue Virus Infection and Disease
Eva Harris, Ph.D. (University of California, Berkeley)

11:30 AM A Mouse Model to Investigate T-cell Response to Dengue Virus
Sujan Shresta, Ph.D. (La Jolla Institute for Allergy and Immunology)

12:00 AM Discussion
12:30 PM Lunch break
2:00 PM The Rhesus Macaque Model of DHF/DSS: How Close Are We to Human Disease?
Anna Durbin, M.D. (Johns Hopkins Bloomberg School of Public Health)

2:30 PM Passive Immunization in Monkeys Using Monoclonal Antibodies Against Dengue Virus
Ana Goncalvez, Ph.D. (Laboratory of Infectious Diseases, NIAID)

3:00 PM Yucatan Miniature Swine as an Immunogenicity and Infection Model for Dengue
3:00 PM Discussion
4:00 PM Afternoon Break

**Session II: Animal Models to Evaluate Dengue Vaccines and Therapeutics**

Chairs: Anna Durbin and Stephen Whitehead

4:30 PM Evaluation of Attenuated Viruses in Mice and Monkeys
Stephen Whitehead, Ph.D. (Laboratory of Infectious Diseases, NIAID)

5:00 PM Dengue Vaccine, Monkey Animal Models and Sanofi Pasteur R&D Experience
Jean Lang, M.D., Ph.D. (Sanofi Pasteur)

5:30 PM Discussion
6:00 PM Adjourn

Friday, September 19, 2008

**Session II, Continued: Animal Models to Evaluate Dengue Vaccines and Therapeutics**

Chairs: Anna Durbin and Steve Whitehead

8:30 AM Evaluation of Reproductive Toxicity of a Dengue Live-attenuated Vaccine Candidate in Mice
Sandra Giannini, Ph.D. (GlaxoSmithKline)

9:00 AM Dengue Vaccine Candidate Characterization Using Monkeys
Kenneth Eckels, Ph.D. (Walter Reed Army Institute of Research)

9:30 AM Evaluation of Anti-viral Drug Candidates in Dengue Mouse Models
Wouter Schul, Ph.D. (Novartis Institute for Tropical Diseases)

10:00 AM FDA Perspective
Lewis Markoff, M.D. (CBER, FDA)

10:15 AM **Morning Break**

10:45 AM Session III: Roundtable Discussion
Chairs: Cristina Cassetti and John Roehrig

11:15 AM Summary of Pathogenesis and Recommendations
Scott Halstead and Alan Rothman

11:45 AM Summary of Murine Models and Recommendations
Eva Harris, Rebeca Rico-Hesse, and Leonard Schultz

12:15 PM Pick Up Box Lunch

12:30 PM Summary of Models for Vaccines and Recommendation
Stephen Whitehead and Anna Durbin

1:00 PM Summary of Models for Therapeutics and Recommendation
Wouter Schul and Michael Diamond

1:30 PM Discussion
2:30 PM Adjourn