

## Seventh Annual Botulinum Research Symposium, 2013

### Final Program

**Wednesday, August 14, 2013**

- 1- 4 PM      Arrival and check-in at hotels
- 4:00-5:00 PM      Registration and Welcome, UMass Campus, **Outside the BRC Building**,  
Parking Lot 15
- 5:00 PM      Social and BBQ dinner, UMass Campus, **Outside the BRC Building**
- 6:45 PM      Travel to CVPA Auditorium
- 7:00 PM      Welcome to the evening program, **Dr. Emmanuel Ojadi**, Chairman,  
Department of Chemistry and Biochemistry, UMass Dartmouth
- 7:05 PM      Lab Concert – Koyel Ghosal, Gowri Chellappan, Anuradha Tata, Alessandra  
Geffner-Smith, others, **CVPA Auditorium (VI-153)**, Parking Lot 9
- Session I      Session Chair** – Keith Foster, Syntaxin Ltd, UK
- 7:45 PM      **Featured Speech** – **Andreas Rummel**, Medizinische Hochschule  
Hannover, Hannover, Germany; *Uptake of the various BoNTs*
- 8:30 PM      Q&A



**Thursday, August 15, 2013**

**Woodland Commons Conference Area (Parking Lot 10)**

- 7:45 AM Registration and Continental breakfast
- 8:30 AM *Introduction*, Dr. Bal Ram Singh, UMass Dartmouth
- 8:40 AM *Welcome*, **Dr. Tesfay Meressi**, Associate Provost for Graduate Studies and Research, UMass Dartmouth
- Session II** **Session Chair** – Michael Adler, US Army Medical Institute of Chemical Defense, Aberdeen Proving Ground, MD
- 8:45 AM **Symposium Speech** – **Min Dong**, Harvard Medical School; *Diversity and Cytotoxicity of Botulinum Neurotoxins*
- 9:30 AM *Molecular Structure of Type E Botulinum M-Complex*, **S. Eswaramoorthy** and **Subramanian Swaminathan**, Brookhaven National Lab, Upton, NY
- 9:55 AM *PRIME Conformation of Optimally Active Botulinum Endopeptidases*, **Raj Kumar**, BRC, UMass Dartmouth
- 10:20 AM *Molecular Dynamics against Botulism: What Can We Learn from Molecular Modeling*, **Valeri Barsegov**, University of Massachusetts Lowell
- 10:45 AM **Coffee/Tea break**
- Session III** **Session Chair** – Brenda Wilson, University of Illinois, Urbana-Champaign
- 11:00 AM *Development and Validation of Mass Spectrometry Based Methods for the Detection and Differentiation of Botulinum Neurotoxins A, B, E, and F in Clinical Samples*, **J.R. Barr**, S.R. Kalb, C. Luquez, J. Baudys, B.H. Raphael, D. Wang, J.C. Krilich, B.A. Parks, and S.E. Maslanka, CDC, Atlanta, GA
- 11:25AM *Clostridium botulinum strain Af84 produces three enzymatically active neurotoxins: BoNT/A2, BoNT/F4, and BoNT/F5*, **Suzanne R. Kalb**, Jakub Baudys, Theresa J. Smith, Leonard A. Smith, and John R. Barr, CDC Atlanta, GA
- 11:50 AM *Genomic Analysis of Clostridium botulinum Subtypes F4 and F5 Strains and MS Analysis of their Associated Neurotoxins*, **Brian Raphael**, CDC, Atlanta, GA



- 12:15 AM Travel to BRC quad
- 12:30 PM Group Photo and Tour of Center facilities
- 12:45 PM **Lunch, BRC Quad**
- Session IV** **Session Chair** – Shuowei Cai, Botulinum Research Center, UMass Dartmouth
- 1:30 PM Poster session, **BRC Bridge**
- Session V** **Session Chair** – Klaus Fink, MERZ, Germany, and Andy Pickett, Toxin Science, Ltd., UK
- 2:45 PM *Interesting! Amazing! Unbelievable! The New World of BoNT Clinical Uses and Discoveries, 2013, **Andy Pickett**, Toxin Science Ltd., Wrexham, UK*
- 3:10 PM *The Storm Before the Calm: Epileptiform Activity Precedes Network Silencing following BoNT/A Intoxication of Central Synapses, **Phillip Beske and Patrick McNutt**, US Army Medical Institute of Chemical Defense, Aberdeen Proving Ground, MD*
- 3:35 PM *Engineering BoNT-based Inhibitor Delivery Platforms against Botulism, **Brenda Wilson**, University of Illinois, Urbana-Champaign*
- 4:00 PM *Advances in Oral and Post-exposure Therapeutics for BoNT and Other Enteric Toxin Based Diseases, **Dr. George Oyler**, Synaptic Research, MD*
- 4:25 PM *Detoxified recombinant Botulinum neurotoxin (DrBoNT) Type A as an Ideal Vaccine, **Easwaran Ravichandran**, Stephen Riding, Pavithra Janardhanan, Kruti Vasa, Shuowei Cai and Bal Ram Singh, BRC and Chemistry and Biochemistry, UMass Dartmouth*
- 4:50 PM *Detection Platforms for Botulinum Toxins, **Venkat Kodumudi**, Omni Array Biotechnology, Rockville, MD*
- 5:15 PM **Break**



## Thursday, August 15, 2013, Evening Program: Woodland Commons

- 5:45 PM Welcome remarks – **Dr. Amy Shapiro**, Associate Dean, College of Arts and Sciences, UMass Dartmouth
- 5:50 PM Social and the Game of BoNTLife©, Students and Staff of the Botulinum Center
- 6:30 PM Dinner
- Session VI** **Session Chair** – Dr. Robert Hall, NIAID, National Institutes of Health
- 7:30 PM **Symposium Banquet Speech** – *Dr. Bahman Jabbari, Yale Medical School; Botulinum Toxin Treatment of Painful Disorders*
- 8:15 PM Q&A

## Friday, August 16, 2013, Woodland Commons

8:00 AM – Breakfast

**Session VII** **Session Chair** – John Barr, CDC, Atlanta, GA

- 8:30 AM *New Approaches to Botulinum Toxin Detection in Foods*, **Shashi Kant Sharma**, USFDA, College Park, MD
- 8:55 AM *10 years of Developing Botulinum Diagnostics at NIAID*, **Robert Hall**, Program Officer, Cholera, other vibrios, Aeromonas, Enteric and Hepatic Disease Diagnostics, Enteric and Hepatic Diseases Branch, Division of Microbiology and Infectious Diseases, NIAID, NIH
- 9:20 AM *10 years of developing Botulinum Neurotoxin (BoNT) Therapeutics at NIAID*, **John A. Bogdan**, Therapeutics Development Program Officer, Office of Biodefense, Research Resources and Translational Research (OBRRTR), Division of Microbiology and Infectious Diseases, NIAID, NIH
- David Hodge**, Department of Homeland Security
- 9:45 AM **Coffee/Tea break**



**Session VIII Session Chair** – John Bogdan, NIAID, NIH

10:00 AM **Panel on Safety and Regulations of Botulinum Research**

Venkat Kodumudi, OmniArray Biotechnology, Inc., **Moderator**

Stephen Morse, CDC

Segeran Pillai, DHS

Shashi Sharma, USFDA

David Hodge, DHS

Michael Adler, USAMRICD

Suzanne Kalb, CDC

Tom O'Brien, Tetracore, Inc.

Joseph McArdle, UMDNJ

Shuowei Cai, UMass Dartmouth

11:30 AM Symposium conclusion, lunch, networking, departure