Fourth Annual Botulinum Research Symposium

Program Schedule

Thursday, August 19, 2010

1- 4 PM	Arrival and check-in at hotels	
4- 5 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 Visual and Performing Arts (CVPA) Auditorium	
7:00 PM	Welcome to delegates – **Dr. Jean MacCormack,** Chancellor, UMass Dartmouth	
7:05 PM	Lab Concert – Koyel Ghosal, and others, CVPA Auditorium, Parking Lot 9	
Session I	**Session Chair** – Michael Adler, US Army Medical Institute of Chemical Defense	
7:45 PM	**Speech:**	*Discovery of the endopeptidases of Clostridial Neurotoxins* **Giampietro Schiavo**, Cancer Research UK London Research Institute
8:45 PM	Q&A	

Friday, August 20, 2010: Woodland Commons Conference Area

8:00 AM Continental breakfast

8:45 AM *Introduction and Welcome*, Bal Ram Singh, UMass Dartmouth

Session II **Session Chair** – Joe McArdle, University of Medicine and Dentistry of New Jersey

9:00 AM **Symposium speech** – *Process and Mechanism of Trafficking of Clostridial Neurotoxins*, **Giampietro Schiavo,** Cancer Research UK London Research Institute

10:00 AM **Coffee/Tea break**

Session III **Session Chair** – Keith Foster, Syntaxin Ltd., UK

10:30 AM *Near Infrared imaging and Confocal Microscopy for Botulinum Neurotoxin Trafficking*, **Martha Hale,** USAMRIID, Frederick, MD, and **Koyel Ghosal**, BRC, UMass Dartmouth

10:50 AM *Endocytic pits disassembly hits BoNT/A uptake*, **Baskaran Thyagarajan**, University of Medicine and Dentistry of New Jersey

11:10 AM *Insights into Ubiquitin Proteasome regulation of BoNT A, B, and E Lc*, **George Oyler**, Synaptic Research, MD

11:20 AM *Structure and Activity of Botulinum Neurotoxin Serotype A*, **Ashraf Ahmed**, US Army Research Institute of Infectious Disease, Ft. Detrick, MD

11:40 AM *Session for Program Officers and Regulatory Personnel*

12:00 PM	Group Photo and Tour of Center facilities
12:30 PM	**Lunch, BRC Quad**
1:15 PM	Poster session, **BRC Bridge**
Session IV	**Session Chair** – Patrick McNutt, US Army Medical Research Institute of Chemical Defense, APG, MD
2:15 PM	*Origin and Evolution of BoNT, Vintage Sequence Analyses*, **Tzuu-Wang (Alex) Chang**, BRC, UMass Dartmouth
2:35 PM	*New Observations in Neuromuscular BoNT Assays and Reversal of BoNT Intoxication by Aminopyridine analogs* - **Michael Adle**r, US Army Medical Research Institute of Chemical Defense, APG, MD
2:55 PM	*Further Development of Embryonic Stem Cell-Derived Neurons for Botulinum Research*, **CAPT Mariano Mesngon**, US Army Medical Research Institute of Chemical Defense, APG, MD
3:15 PM	*Open Discussion on the need, development and availability of reagents for botulinum research* - ***Moderators*** - Dr. Hodge of DHS, Dr. Pickett of IPSEN, Dr. Venkat Kodumudi, Radix Biosolutions
3:40 PM	**Coffee/Tea break**
Session V	**Session Chair** – Klaus Fink, MERZ, Germany
4:00 PM	*Novel SPR biosensor for BoNT detection*, **Jay Schwarz**, Newton Photonics, Newton, MA
4:20 PM	*Multiplex assays for botulinum neurotoxins*, **Venkat Kodumudi**, BioRadix Solutions, Austin, TX
4:40 PM	*A Microfluidic Platform for Detection of Biotoxins* - **Anup Singh**, Sandia National Lab

5:00 PM **Break**

Friday, August 20, 2010 Evening Program: Woodland Commons

6:00 PM Social, Woodland Commons

6:30 PM Dinner

7:15 PM **Session VI** **Session Chair** – Andy Pickett, IPSEN Ltd., UK

Global picture of botulinum as a therapeutic agent – **Andy Pickett,** IPSEN Ltd.

7:40 PM **Dinner Speech***: Botulinum Aesthetics,* **Alejandro Gonzalez**, Derm Medica, Mexico City, Mexico

Additional Attendees

1. Luis Alverez, Natick Army Lab, Natick, MA
2. Terry Bowlin, Microbiotix, Worcester, MA
4. Steven Cardinale, Microbiotix, Worcester, MA
5. Bill Checovich, BioSentinel Pharma, Madison, WI
6. Dina Deresa, Natick Army Lab, Natick, MA
7. Jigar Desai, Allergan Inc, Boston, MA
8. David Duffy, Quanterix, Cambride, MA
8. William Eicher, Natick Army Lab, Natick, MA
9. Ellen Goldman, US Naval Research Lab, Washington, DC
10. Andrew Hayhurst, US Army Medical Research Institute of Infectious Disease, Ft. Detrick, MD
11. Amanda Horstman, Office Defense Threat Reduction Agency, Fort Belvoir, VA
12. Mark Johansen, Jacobs Dugway Proving Ground
13. Hyuk Kim, AMORE PACIFIC
14. Jonathan Nuss, US Army Medical Research Institute of Infectious Disease, Ft. Detrick, MD
15. Karen Perrow, IPSEN Ltd.
16. Joseph Potian, UMDNJ - New Jersey
17. Brian Raphael, Centers for Disease Control, Atlanta, GA
18. Nancy Stover, Mentor, Santa Barbara, CA
19. Stephen Toth, Mentor Biologics, Middleton, WI
20. Ward Tucker, BioSentinel Pharma, Madison, WI
21. Claudia Vilo, Port Jefferson Station, NY
22. Naomi F. Zeytin, BioSentinel Pharma, Madison, WI
23. Boke Zhang, Anterios Inc., Brighton, MA

BRC attendees

24. Shuowei Cai, Botulinum Research Center, UMass Dartmouth
25. Charlene Mello, Natick Army Lab, Natick, MA and UMass Dartmouth
26. Ravi Easwaran, Botulinum Research Center, UMass Dartmouth
27. Naga Thirunavukkarasu, Botulinum Research Center, UMass Dartmouth
28. Haihong Wang, Botulinum Research Center, UMass Dartmouth
29. Pingke Fang, Botulinum Research Center, UMass Dartmouth
30. Paul Lindo, Botulinum Research Center, UMass Dartmouth
31. Steve Riding, Botulinum Research Center, UMass Dartmouth
32. Jenny Davis, Botulinum Research Center, UMass Dartmouth
33. Josh Uzarski, Botulinum Research Center, UMass Dartmouth
34. Morris Slutsky, Botulinum Research Center, UMass Dartmouth

35. Alex Tzuu Wang Chang, Botulinum Research Center, UMass Dartmouth
36. Michael Morse, Botulinum Research Center, UMass Dartmouth
37. Mario Oliveira, Botulinum Research Center, UMass Dartmouth
38. Koyel Ghosal, Botulinum Research Center, UMass Dartmouth
39. Raj Kumar, Botulinum Research Center, UMass Dartmouth
40. Pavithra Janardhanan, Botulinum Research Center, UMass Dartmouth
41. Michael Goykham, Botulinum Research Center, UMass Dartmouth
42. Anne Marie Bryant, Botulinum Research Center, UMass Dartmouth
43. Ankit Shah, Botulinum Research Center, UMass Dartmouth
44. Wonsup Choi, Botulinum Research Center, UMass Dartmouth
45. Harkiranpreet Dhaliwal, Botulinum Research Center, UMass Dartmouth
46. Deepti Mehandru, Botulinum Research Center, UMass Dartmouth
47. Maureen Jenning, Botulinum Research Center, UMass Dartmouth
48. Tom Fultrup, Botulinum Research Center, UMass Dartmouth

Posters

1. Steven C. Cardinale, Michelle M. Butler, Norton P. Peet, Bing Li, Donald T. Moir, Arnab Basu, Debra M. Mills, and Terry L. Bowlin. **Discovery of Novel Small Molecule Dual Inhibitors of Botulinum Neurotoxins A and B.**

2. Nagarajan Thirunavukkarasu, Koyel J. Ghosal, Luis Alwarez, George A. Oyler, Charlene M. Mello, Shuowei Cai and Bal Ram Singh. **Approaches to study persistence of light chain protease activity and its localization in botulinum neurotoxin poisoning**

3. Dina Deresh, William Eicher, Luis Alvarez, Harkiranpreet Kaur Dhaliwal, Nagarajan Thirunavukkarasu, Bal Ram Singh, Charlene Mello. **Analysis of Post-Entry Modification of Botulinum Neurotoxin Light Chains A & E using Tandem Mass Spectrometry.**

4. Harkiranpreet Kaur Dhaliwal, Koyel J. Ghosal, Raj Kumar, Charlene M. Mello, Shuowei Cai, and Bal Ram Singh. **In vitro studies on effect of phosphorylation on endopeptidase activity and structure of BoNT/A and E LC.**

5. Ping-Ke Fang, Brian H. Raphael, Susan E. Maslanka, Bal Ram Singh, and Shuowei Cai. **Analysis of genetic diversity among Clostridium botulinum type A1 strains.**

6. Raj Kumar, Mario Oliviera, Silvi Agarwal, Artem Zhmurov, Dr. S.Cai, Dr. V.Barsegov and Dr. B. R. Singh. **MD Simulation of type A botulinum neurotoxin light chain polypeptide folding.**

7. Hai-Hong Wang, Stephen Riding, Paul Lindo, Shuowei Cai, and Bal Ram Singh. **Comparison of the endopeptidase activity of different active forms of botulinum neurotoxin type B.**

8. Koyel J. Ghosal, Roshan Kukreja, Shuowei Cai, Martha Hale, and Bal Ram Singh. **Role of NAPs in the transcytosis of botulinum neurotoxin across intestinal epithelial (HT-29) cells.**

9. Nagarajan Thirunavukkarasu, Easwaran Ravichandran, Harkiranpreet K. Dhaliwal, Charlene M. Mello, Shuowei Cai, Bal Ram Singh. **Predictive modeling approaches to understand the translocation dynamics, and catalytic domain survival of Botulinum Neurotoxins (BoNTs) in host cells.**

10. M. J. Oliveira, R. Kukreja, S. Cai, and B. R. Singh. **Fluorescence anisotropy analysis of the botulinum neurotoxin type A light chain interaction with its substrate peptide.**

11. Pavithra Janardhanan, Charlene M. Mello, Bal Ram Singh, and Shuowei Cai. **Optimization of RNA aptamers-light chain BoNT/A binding kinetics.**

12. Ward C. Tucker. **Validation of BoTest™Assay for determination of endopeptidase activity in formulated Botulinum Neurotoxin Serotype A.**

13. Ward C. Tucker. **Comparability of BoTest™ assay with an LD50 potency assay.**

14. George P. Anderson, Richard H. Glaven, Jinny L. Liu, Dan Zabatakis, Rachael D. Bernstein, Marla D. Swain, Ellen R. Goldman. **Llama derived single domain antibodies for the detection of BoNT A, ricin, and abrin.**

15. Tzuu-Wang Chang and Bal Ram Singh. **Ω Ratio Determination & CUF (Codon Usage Frequency) Comparison of BoNTs**