

UMass Dartmouth Botulinum Research Center Introduction Symposium

Program

Thursday, August 21, 2008

1-4 PM Arrival and check-in at hotels

4-5 PM Registration and Welcome, UMass Campus, **Woodland Commons**,
Parking Lot 10

5:00 PM Social and BBQ dinner, UMass Campus, **Woodland Commons**

6:45 PM Travel to Visual and Performing Arts (VPA) Auditorium

7:00 PM Welcome to delegates – **Dr. Emmanuel Ojadi, Chairman**, Department
of Chemistry and Biochemistry

7:05 PM Lab Concert – Graduate Student Alex Chang on Recorder and Piano, High
School cum Undergraduate student Rishi Singh on Guitar, flute and Tabla,
GVPA auditorium, Group VI-153

Session I Session Chair – Keith Foster

7:45 PM **Keynote:** Effects of botulinum neurotoxins in the central nervous system.
Dr. Matteo Caleo, Istituto di Neuroscienze, Consiglio Nazionale delle Ricerche, Italy. VPA
auditorium, Group VI-153

8:15 PM Response – Andy Pickett, IPSEN LTD., UK

8:25 PM Q&A

Friday, August 22, 2008: Woodland Commons Conference Area

8:00 AM Continental breakfast

9:00 *Introduction and Welcome*, Bal Ram Singh, UMass Dartmouth

9:10 AM *Botulinum Center and UMass Dartmouth* – **Dr. Lou Petrovic**, Office of
Research Administration

Session II Session Chair – Shuowei Cai

9:15 AM **Symposium speech 1** - Engineering Clostridial Neurotoxins: New
Therapeutic Opportunities, **Dr. Keith Foster**, Syntaxis
Ltd., UK

10:00 AM *Therapeutic botulinum toxin - factors affecting pharmacological properties*, Andy Pickett, IPSEN LTD., UK

10:30 AM Coffee/Tea break

Session III **Session Chair** – Andrea Stahl

11:00 AM *Natural Synthetic Small Molecular Inhibitors against BoNT/A* – Virinder Parmar, University of Delhi

11:15 AM *Hot" chili pepper keeps neuromuscular junction "cool": Capsaicin preserves functions of mouse neuromuscular junction from the paralytic effects of botulinum neurotoxin A*, Baskaran Thyagarajan, University of Medicine and Dentistry of New Jersey

11:30 AM *Novel Aptamer Inhibitors against BoNT/A*, Shuowei Cai, Botulinum Research Center, UMass Dartmouth

11:45 AM *Project BioShield and Botulism Medical Countermeasures*, Clay Hollaway, BARDA, DHHS

12:00 AM *Current efforts in the CBD group*, David Hodge, DHS

12:15 noon Tour of Center facilities and Group Photo

12:45 PM Lunch. **BRC Quad**

1:15 PM Poster session, **BRC Bridge**

Session IV **Session Chair** – Andy Pickett

2:15 PM Botulinum Research at USAMRIID, LTC Andrea Stahl, US Army Research Institute of Infectious Diseases

2:30 PM **Symposium speech 2 - Medical Solutions for the Prevention and Treatment of Botulism**, **Leonard Smith**, US Army Research Institute of Infectious Diseases

3:15 PM *Immunogenicity of Botulinum Toxin as tested by DNA immunization*, Shan Lu, UMass Medical School

3:30PM *Candidate protein therapeutics and delivery systems for BoNT intoxication*, George Oyler, Synaptic Research, MD

3:45 PM *Database Mining Novel Botulinum Neurotoxin Serotype A Light Chain Inhibitor Chemotypes*, James Burnett, SAIC - NCI

4:00 PM Coffee/Tea break

Session V **Session Chair** – David Hodge

4:30 PM *Neutralization of botulinum neurotoxin by a human monoclonal antibody specific for the catalytic light chain*, Sharad Adekar, Lankenau Institute for Medical Research, Wynnewood, PA

4:45 PM *Multiplex Detection of Botulinum Neurotoxins*, Venkat Kodumudi, Radix Biosolutions, Austin, TX

5:00 PM **RAPIDX: Rapid Automated Portable Infection/Exposure Diagnostics**, Anson Hatch, Sandia National Laboratory, CA

5:15 PM *Reagentless Detection of Botulinum Toxin using a Differential Mobility Spectrometric System*, James Comolli, The Charles Stark Draper Laboratory, Cambridge, MA

5:30 PM Break

August 22, 2008 Evening Program: Woodland Commons

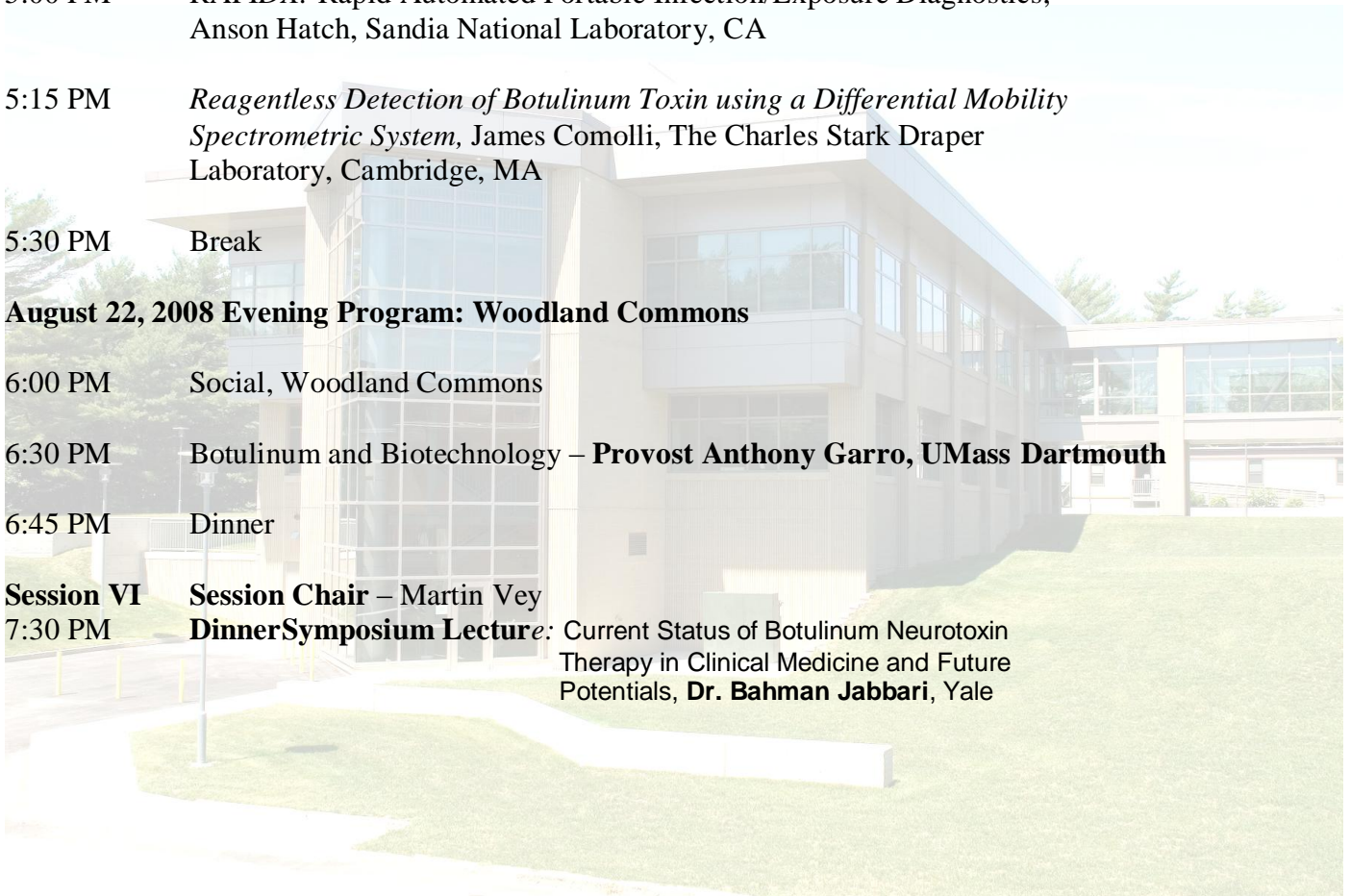
6:00 PM Social, Woodland Commons

6:30 PM Botulinum and Biotechnology – **Provost Anthony Garro, UMass Dartmouth**

6:45 PM Dinner

Session VI **Session Chair** – Martin Vey

7:30 PM **DinnerSymposium Lecture:** Current Status of Botulinum Neurotoxin Therapy in Clinical Medicine and Future Potentials, **Dr. Bahman Jabbari**, Yale



Posters

Novel BoNT/A Inhibitors are Active in Both Enzyme and Cell-Based Assays

Steve Cardinale and Terry Bowlin, Microbiotix, Worcester, MA

Metabolic and Pharmacokinetic Properties of Small Molecule Inhibitors of Botulinum Neurotoxin Serotype A.

Jon Davis, Walter Reed Research Institute, Washington, DC

Screening of synthetic and naturally occurring compounds as inhibitors of endopeptidases (BoNTs) from *Clostridium botulinum*

Vijayendra Kumar¹, Kruti Vasa², Shashwat Malhotra³, Paul Lindo², Shuowei Cai², Bal Ram Singh^{2,*}, Arthur C Watterson¹ and Virinder S Parmar^{1,3,*}¹Institute of Nano-science and Engineering Technology, Department of Chemistry, University of Massachusetts Lowell, Lowell, MA 01854, USA; ²Department of Chemistry and Biochemistry, The Botulinum Research Center, University of Massachusetts Dartmouth, North Dartmouth, MA 02747, USA; ³Bio-organic Laboratory, Department of Chemistry, University of Delhi, Delhi 110 007, India

Selective Entry of Deactivated Recombinant BoNT/A in Neuronal Cells to Demonstrate its Drug Delivery Potential

Koyel J. Ghosal, Dr. Shuowei Cai and Dr. Bal Ram Singh; Botulinum Research Center and Chemistry and Biochemistry Department, UMass Dartmouth

Improving Amplification, Separation and Recovery Yield of DNA Fragments from SELEX Cycle

Pavithra Janardhanan, Tzoo-Wang Chang, Bal Ram Singh and Shuowei Cai; Botulinum Research Center and Chemistry and Biochemistry Department, UMass Dartmouth

Development and Screening of RNA Aptamers for Type A Botulinum Neurotoxin Light Chain by Using Surface Plasmon Resonance

Tzoo-Wang Chang, Charlene M. Mello, Shuowei Cai and Bal Ram Singh; Botulinum Research Center and Chemistry and Biochemistry Department, UMass Dartmouth

Probing the Secondary Structure of a Double Mutated Botulinum Neurotoxin

Michael Morse, Roshan Kukreja, Shuowei Cai and Bal Ram Singh Botulinum Research Center and Chemistry and Biochemistry Department, UMass Dartmouth

HPLC-Based Separation of Different Components of Botulinum Neurotoxin Complex

Shashi Sharma, Steve Riding, Andy Pickett and Bal Ram Singh; Botulinum Research Center and Department of Chemistry and Biochemistry, UMass Dartmouth; IPSEN Ltd., UK

Fluorescence Anisotropy Analysis of the Botulinum Neurotoxin Type A Light Chain Interaction with its Substrate Peptide

B. R. Singh, M. J. Oliveira, G. Ambrin, R. Kukreja and S. Cai; Botulinum Research Center, Department of Chemistry and Biochemistry and UMASS Dartmouth

Endopeptidase Activity of Deactivated Recombinant Botulinum Neurotoxin Type A

Kruti P. Vasa, Shuowei Cai and Bal Ram Singh; Botulinum Research Center and Chemistry and Biochemistry Department, UMass Dartmouth

Phage Display Based Discovery of Botulinum Neurotoxin Binding Peptides

Hai-Hong Wang, Animesh Agrawal, Charlene Mello and Bal Ram Singh; Chemistry and Biochemistry Department, Department of Material and Textiles, Bioscience and Technology Team, US Army Natick Soldier Research

Molecular basis of activation of endopeptidase activity of botulinum neurotoxin type E

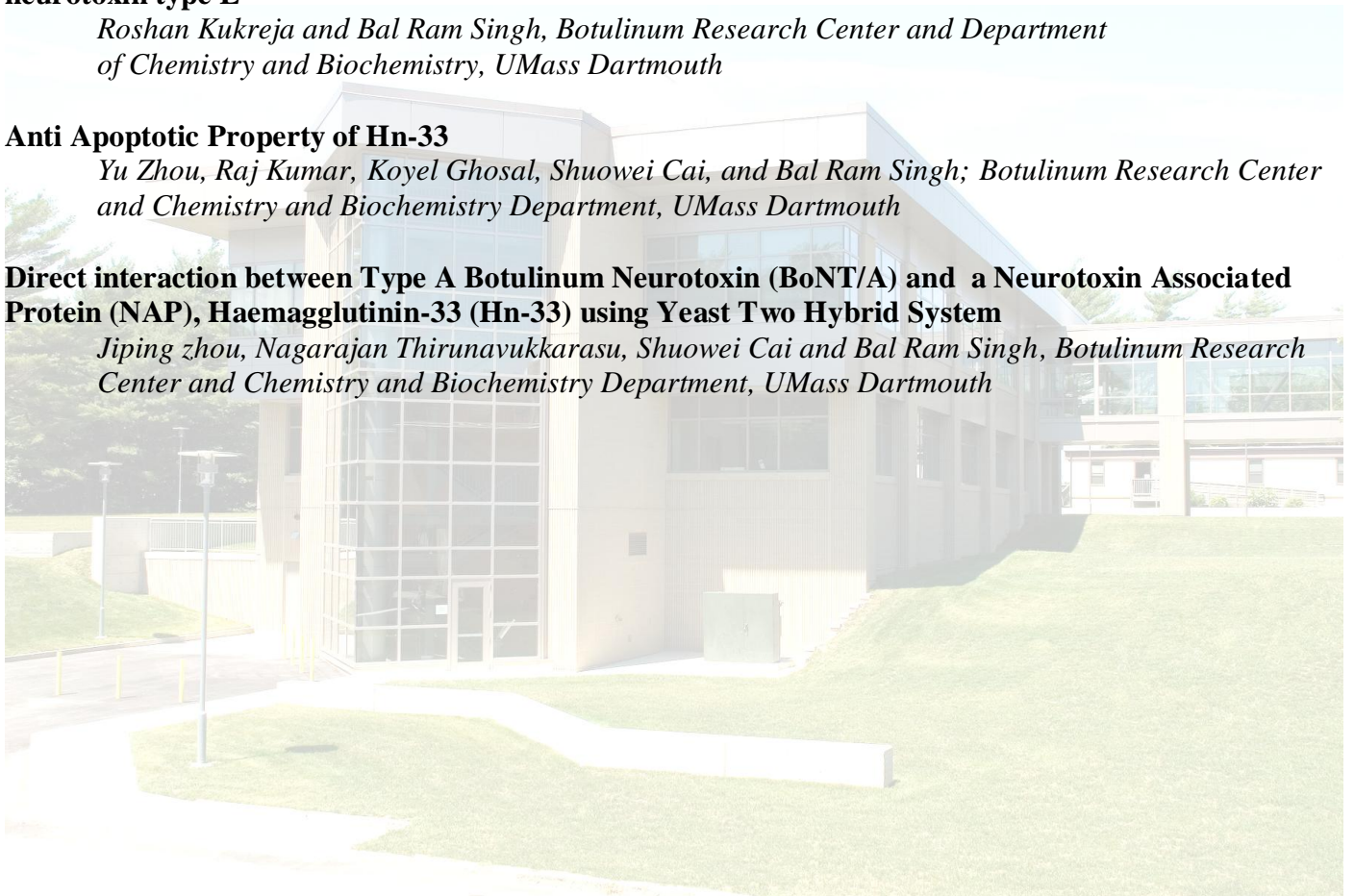
Roshan Kukreja and Bal Ram Singh, Botulinum Research Center and Department of Chemistry and Biochemistry, UMass Dartmouth

Anti Apoptotic Property of Hn-33

Yu Zhou, Raj Kumar, Koyel Ghosal, Shuowei Cai, and Bal Ram Singh; Botulinum Research Center and Chemistry and Biochemistry Department, UMass Dartmouth

Direct interaction between Type A Botulinum Neurotoxin (BoNT/A) and a Neurotoxin Associated Protein (NAP), Haemagglutinin-33 (Hn-33) using Yeast Two Hybrid System

Jiping zhou, Nagarajan Thirunavukkarasu, Shuowei Cai and Bal Ram Singh, Botulinum Research Center and Chemistry and Biochemistry Department, UMass Dartmouth



List of other attendees/potential presenters of posters or brief introductory talks

Dr. John R. Barr, CDC, Atlanta, GA
Dr. Brian Blanchette, CEO, Dakota Laboratories, MA
Dr. Terry Bowlin, CEO, Microbiotix, MA
Dr. Christopher deFiebre, Allergan, Inc., CA
Dr. Klaus Fink, Merz, Frankfurt, Germany
Mrs. Foster, Syntaxin Ltd.
Dr. Martha Hale, USAMRIID, MD
Dr. Shmuel Halevi, CEO, BioTell, MA
Dr. Anson Hatch, Sandia National Lab, CA
Dr. (Mrs.) Jabbari, New Haven, CT
Dr. Amy Johnson, Penn State Botulism Lab, PA
Dr. Suzanne R. Kalb, CDC, Atlanta, GA
Dr. Warren Kalina, NBACC
Dr. Markus Kalkum, Beckman Research Institute, CA
Dr. Roshan Kukreja, Anterios, Inc, MA
Dr. Carmine Lanni, Director, Allergan Inc., CA
Dr. Andrea Masi, Cangene Corp.
Dr. Daniel McAuliffe, Senior Administration Director, CIMIT, MA
Dr. Charlene Mello, U. S. Army Natick Soldier Research, MA
Dr. Paul Melman, CEO, Newton Photonics, MA
Dr. Benjamin M. Rowe, USAMRIID, Fort Detrick, MD
Dr. Mohan Natesan, USAMRIID, MD
Dr. Kerry Oliver, Radix BioSolution, Austin, TX
Dr. Andrew Ress, BB Scientific and Ress Institute, FL
Dr. Victor Rivera, USAMRIID, MD
Dr. Theresa J. Smith, USAMRIID, Fort Detrick, MD
Dr. Greg Sommer, Sandia National Lab, CA
Dr. Larry Stanker, WRRRC, USDA, CA
Dr. Stephen Toth, Mentor Biologics, Madison, WI
Dr. Archie Stone, Allergan, Inc., CA
Dr. Nancy Stover, Director, Mentor Biologics, Madison, WI
Dr. Martin Vey, MERZ, Frankfurt, Germany
Dr. Boke Zhang, VP, Anterios, Inc., MA

