



Institute of  
Advanced  
Sciences

Botulinum  
Research  
Center

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## Symposium Coordinators:

**Shuwei Cai**, University of  
Massachusetts Dartmouth

**Raj Kumar**, Institute of  
Advanced Sciences

## Fifth Announcement

### 15<sup>th</sup> Annual Botulinum Research Symposium, August 18-19, 2021

The 15<sup>th</sup> annual symposium organized by the Botulinum Research Center at the Institute of Advanced Sciences, Dartmouth, MA.

**Theme:** Redesigned Botulinum Neurotoxins

#### Program

Wednesday, August 18, 2021 (Time, US Eastern Daylight Saving Time)

#### Session I -Inaugural Session

**Chair: Michael Adler**, US Army Research Institute  
of Chemical Defense

9:00 – 9:30 AM

**Welcome and Introductory Remarks – Bal Ram Singh**, BRC, INADS

9:30 – 10:15 AM

**A chimeric toxin-based delivery platform for post-exposure treatment of botulism- Min Dong**, Harvard Medical School

10:15 – 10:30 AM

Q&A

10:30 – 10:45 AM

**Break**

#### Session II

**Chair: John Bogdan**, Senior Consultant, Joint Project Executive  
Office, CBRN, DoD

10:45 – 11:15 AM

**Local injection of an anti-cholinesterase restores muscle function post BoNT-A impairment – Sameer B. Shah**, DeINova, Inc., USA

11:15 – 11:45 AM

**Treatment of botulism with 3,4-diaminopyridine – Michael Adler**, US Army Research Institute of Chemical Defense, Aberdeen Proving Ground, MD, USA

11:45 – 12:15 PM

**Inhibition of BoNT enzymatic activity with sodium phosphate – Suzy Kalb**, CDC, Atlanta, USA

12:15 – 12:45 PM

**Lunch – cum – Poster breakout session**

#### Session III

**Chair: Brenda Wilson**, Univ of Illinois

12:45 – 1:15 PM

**Redesigned botulinum neurotoxin endopeptidase and its potential use/misuse – Travis Blum**, Harvard University

1:15 – 2:30 PM

**Panel Discussion - Risk and Rewards of Redesigned Botulinum Neurotoxins** – Shuowei Cai,  
Moderator

Suzy Kalb, CDC, Atlanta, USA  
Klaus Fink, Merz, Germany  
Michael Adler, USARICD, USA  
Min Dong, Harvard Medical School, Boston  
David Hodge, Former Program Officer, Homeland Security

Thursday, August 19, 2021

**Session IV**

**Chair: Klaus Fink, Merz Pharma**

9:00 – 9:10 AM

**Introduction to the BR DasGupta Memorial Lecture  
– Bal Ram Singh and V. Sathyamoorthy**

9:10 – 9:55 AM

**Making of IncobotulinumtoxinA (Xeomin™), Dr. Jurgen Frevert,  
Merz Pharma, Germany**

9:55 – 10:10 AM

**Q&A**

**Session V**

**Chair: Terry Bowlin, Microbiotix, Worcester, USA**

10:10 – 10:40 AM

**Further Research Progress on Novel medical applications of  
botulinum neurotoxins – longevity and macular disease, Gary  
Borodic, Harvard Medical School, Boston, USA**

10:40 – 11:10 AM

**Gliosid mediated Action of Isolated and Complete BoNT/A,  
Ghuncha Ambrin, UMass Dartmouth, MA, and Univ of North Carolina  
Charlotte, USA**

11:10 – 11:25 AM

Break

**Session VI**

**Chair: Andy Pickett, Toxin Bioscience**

11:25 AM – 12:25 PM

**Lifetime Achievement Award - Speeches**

**Session VII**

**Chair: John Barr, CDC, Atlanta, USA**

12:25 – 12:55 PM

**Biosimilar Botulinum Neurotoxin Product– Enan Guan, Biologics  
& BoNT Consulting, Washington DC, USA**

12:55 – 1:25 PM

**Antibody-free Detection and Quantitation of Botulinum  
Neurotoxins by Nano LC with Targeted Multistage Mass  
Spectrometry– Markus Kalkum, Beckman Research Institute, USA**

1:25 – 1:55 PM **Conformational Dynamics of Botulinum Toxin  
and its implication on evolution– Raj Kumar, Institute of Advanced  
Sciences, Dartmouth, USA**

1:55 – 2:25 PM **Issues with Redesigned Botulinum  
Neurotoxins, Andy Pickett, Toxin Biosciences, UK, and Botulinum  
Research Center, INADS, Dartmouth, MA**

2:25 – 2:40 PM Closing

**Zoom Conference registration  
- Join Zoom Meeting**

<https://us02web.zoom.us/j/84052256405?pwd=NFZBMzlrRXk3SVhYRFIudVYyRi96UT09>

Meeting ID: 840 5225 6405  
Passcode: 096956