



University of
Massachusetts
Dartmouth

**Botulinum
Research
Center**

285 Old Westport Road
North Dartmouth
MA, 02747-2300

Tele: (508) 999-8588
Fax: (508) 999-8451

Press Release

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UMass Dartmouth Unveils Botulinum Research Center BSL-3 Facility



A special symposium at UMass Dartmouth's Botulinum Research Center was organized on August 23-24, 2007 to introduce its newly established BSL-3 facilities to about 75 collaborators from academia, industry, and government labs. In addition, officers of federal agencies like DARPA (Defense Advanced Research Projects Agency), DTRA (Defense Threat Reduction Agency), and NIH (National Institutes of Health) were on hand to emphasize the importance of the facility and research to biodefense and public health.

The Botulinum Research Center (BRC) was established by The University of Massachusetts Dartmouth in 2003 at the behest of NIH, and promotes research to create an understanding of the botulinum neurotoxins, their applications and the defenses against such toxins as biothreat agents.

In collaboration with many scientists from federal labs, academia, and industry, BRC (www.umassd.edu/brc) has been focusing on botulinum research relevant to national safety and security as well as for developing its therapeutic applications. The university recently built a 22,000 sq ft new building to include a 4,200 sq ft BSL-3

facility to meet Botulinum Center's mission, which comprises making this facility available to researchers working on basic understanding of the mechanism of action of botulinum neurotoxins, developing antidotes against botulism, designing and validating diagnostics against botulinum agents, and developing vaccines.

Dr. Bal Ram Singh, the founding Director of the Center with experience of over 20 years in preparing and characterizing natural as well as recombinant botulinum proteins said, “the facility will allow unique opportunities for fostering collaborations with scientists nationally and internationally.”

To mark the opening of the new facility, when he invited many of his collaborators to introduce them to the new facility, most of them showed up with great enthusiasm.

Botulinum neurotoxins are the most toxic substances known to mankind, placing them the Category A agent list of biothreats. Paradoxically, these toxins are on the top of the list of any toxins being used as medicine and cosmaceutical, amounting to about \$1.5 billion business annually. This was the reason perhaps for over half a dozen CEOs attending the meeting organized by Singh.

A Keynote speech by **Dr. Daniel Drachman** of Johns Hopkins School of Medicine, along with Oscar nominated documentary film, **Two Hands - the Leon Fleisher Story** featuring Dr. Drachman and the renowned pianist Leon Fleisher set the tone of the meeting on August 23 based on the history of botulinum use in neurological disorders.

On August 24, a Symposium Speech by **Dr. Michael Callahan**, a program manager at DARPA who is among the world's most prominent experts on biothreat and bioterror agents, on Global Issues for Biothreats and Bioterrorism provided a background behind US government's high priority in dealing with agents like botulinum.

The evening Symposium Speech by **Dr. Gary Borodic** of Harvard Medical School on *Current Clinical and Future Medical Applications of Botulinum Toxins*, provided a summary of extensive use of botulinum for treating numerous otherwise untreatable neuromuscular disorders, and some very innovative uses in the future, including perhaps for treating mood changes.

In her brief address to the gathering at dinner, Chancellor Jean F. MacCormack, emphasized the importance of Botulinum Center and the facility for a \$1 billion new Life Science Initiative by the Commonwealth of Massachusetts under the new governor Deval Patrick.

She pointed out, “the provision of GMP facility within the BSL-3 facility of the Center, is a unique feature nationally, and is very relevant to the economic development of the South Coast and the Commonwealth.”