



An NSF Integrative Graduate
Education and Research Traineeship in



National Science Foundation
WHERE DISCOVERIES BEGIN

Integrating Nanotechnology with Cell Biology and Neuroscience

INCBN IGERT Seminar

Location:

Room 101, Center for
High Technology
Materials (CHTM)
1313 Goddard SE
SW corner of UNM's
Science and Technology
Park



For additional information,
contact:

Prof. Marek Osinski
INCBN IGERT Program
Director
UNM/CHTM
(505) 272-7812
osinski@chtm.unm.edu
www.chtm.unm.edu/incbnigert/

Monday, 22 August 2011, 2:30 pm

Speaker: James Giordano

*Director, Center for Neurotechnology
Studies, Potomac Institute for Policy
Studies, Arlington, VA*

*Fellow, Oxford Center for Neuroethics,
University of Oxford, UK*



Nanoneurotechnology in National Security, Intelligence, and Defense: Technical Capabilities and Ethical Issues

The convergence of nanotechnology and neuroscience has enabled development and implementation of techniques and tools that allow heretofore unparalleled access to the brain – and by extension, the ability to affect cognitions, emotions, and behaviors. In light of this, nanoneuropharmacologic agents and a variety of nanoneurodevices are being considered for use in ways that impact national security, intelligence, and defense (NSID), and thus are of interest to the military and several government agencies, as well as a variety of foreign states and actors. This lecture presents an overview of nanoneurotechnological applications in NSID, describes the limitations and possible de-limitations of such approaches, and the potential ethico-legal issues that arise in - and from - such research and its applications. To address these possibilities, it is advocated that a stance of preparedness be employed that engages pragmatic evaluation of scientific progress and its ramifications, and from this an ethic of responsibility be developed that informs and guides policy to engage and support research and its applications in NSID.