



CETMONS

CONSORTIUM FOR EMERGING TECHNOLOGIES, MILITARY OPERATIONS AND NATIONAL SECURITY

Hosted By: Lincoln Center for Applied Ethics

Date: February 5-6th, 2010

Location: Carefree Resort, Carefree, AZ

Desired Outcomes

1. Identify teams and projects for which funding proposals are being or will be sought, the project teams and PI/coordinators appropriate for each funding initiative, and the funding agencies to be approached in each case.
2. Identify gaps in proposals and funding, and plans for addressing them.
3. Identify utilization of the website and future plans for the dissemination of the Consortium's deliverables and projects.
4. Support planning for McCain Conference at U.S. Naval Academy.

Agenda

Friday, February 5

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| 8:30 – 9:00 | Continental Breakfast (available) |
| 9:00 - 9:15 | Welcome (Brad Allenby) |
| 9:15-10:00 | Talk: George Poste (ASU, National Academy of Sciences Working Group on Biological Weapons) |
| 10:00-11:30 | Refreshment break (provided) and Thrust Group Breakout/Working Sessions |
| 11:30-12:15 | Talk: Margaret Kosal (Georgia Institute of Technology, Co-Director of the Program on Emerging Technology and Security and the Director of the Program on Biological and Chemical Nonproliferation and Counterterrorism) |
| 12:15 - 1:45 | Lunch (provided) and Thrust Group Breakout/Working Sessions |
| 1:45 – 3:15 | <i>Presentations by each of the thrust groups identified in Cleveland.</i>
1. The Military/National Security Roadmap 2025 (Joel Garreau)
2. Enhanced Warfighters (Max Mehlman) |

- 3:15 – 3:30 Break (refreshments provided)
- 3:30 – 4:15 **3. International Law, Ethics and Governance on Robotics and National Security (Gary Marchant)**
- 4:15 – 5:00 **Future Consortium Activities** such as the Washington Policymakers Workshops, Website and Webzine, journal issues, book, etc. (**Brad Allenby, Peter French, Heather Olsen, Zack Goldberg**)
- 5:00 – 6:30 Refreshment break (provided) and **Thrust Group Breakout/Working Sessions**
Dinner on your own

Saturday, February 6

- 8:00 – 9:30 Continental Breakfast and **Thrust Group Breakout/Working Sessions**
- 9:30 – 10:15 Talk – **Sean McFate** (National Defense University)
- 10:15 – 10:30 Break (refreshments provided)
- 10:30 – 12:00 **4. Nonlethal Weapons (Ed Barrett)**
5. Training and Education Regarding Emerging Technologies, Military Operations and National Security (Brian Smith)
- 12:00 – 1:00 Working lunch (provided) & **Presentation on McCain Conference** and role of the Consortium and projects in support (**George Lucas**) and
- 1:00 – 3:15 **6. Emerging Technologies and Moral Boundaries: Psychological, Philosophical and Neuroscientific Perspectives (Tony Jack)**
7. Information and Communication Technology and Cyberwarfare (Panayotis Yannakogeorgos)
8. Implications of the New Military Technologies for Democracy and Civic Society (Clark Miller)

NOTE: Because of the exploratory and highly multidisciplinary nature of these discussions, “Gordon Conference” ground rules apply. Individuals may not be quoted for outside publication or attribution purposes regarding anything said within this conference without obtaining the permission of that individual.

Featured Presenter's Bio's: George Poste, Ph.D.



Dr. Poste assumed Directorship of CASI in March 2009. This program links expertise across the university in research on synthetic biology, ubiquitous sensing, healthcare informatics for personalized medicine and advanced computing for non-linear dynamics

From 2003 to 2009 he was Director of the Biodesign Institute at ASU (<http://www.biodesign.asu.edu/>). In leading this Institute, Dr. Poste designed and built 400,000 sq. ft. of new facilities, achieved cumulative research funding of \$225 million and recruited over 60 faculty, including three members of the National Academies of Science and Engineering.

In addition to his academic post he serves on the Board of Directors of Monsanto, Exelixis , Caris Dx., and the Scientific Advisory Board of Synthetic Genomics. From 1992 to 1999 he was Chief Science and Technology Officer and President, R&D of SmithKline Beecham (SB). During his tenure at SB he was associated with the successful registration of 31 drug, vaccine and diagnostic products. In 2004 he was named as 'R&D Scientist of the Year' by R&D Magazine, in 2006 he received the Einstein award from the Global Business Leadership Council and in 2009 received the Scrip Lifetime Achievement award voted by the leadership of the global pharmaceutical industry.

He has published over 350 research papers and edited 14 books on pharmaceutical technologies and oncology. He has received honorary degrees in science, law and medicine for his research contributions and was honored in 1999 by HM Queen Elizabeth II as a Commander of the British Empire for his contributions to international security.

He is a Fellow of the Royal Society, the Royal College of Pathologists and the UK Academy of Medicine, a Distinguished Fellow at the Hoover Institution, Stanford University and a member of the Council for Foreign Relations. He is a member of the Defense Science Board and Health Board of the US Department of Defense (DoD) and the US Institute of Medicine Board on Global Health. He is Chair of the DOD Task Force on Bioterrorism and the newly launched DOD Task Force on Synthetic Biology.

Featured Presenter's Bio's: Margaret E. Kosal, Ph.D.



The Sam Nunn School of
International Affairs



Along with her duties as Assistant Professor in the Sam Nunn School of International Affairs at Georgia Institute of Technology, Margaret E. Kosal is currently the Director of the Program on Emerging Technology and Security and the Director of the Program on Biological and Chemical Nonproliferation and Counterterrorism within the Center for International Strategy, Technology, and Policy (CISTP).

Kosal's research explores two interrelated areas: reducing the threat of weapons of mass destruction (WMDs) and understanding the role of emerging technologies for security. Prior to joining Georgia Tech, Kosal was Science and Technology Advisor within the Office of the U.S. Secretary of Defense (OSD).

She also served as the first liaison to the Biological and Chemical Defense Directorate at the Defense Threat Reduction Agency (DTRA). Kosal received her doctoral degree from the University of Illinois at Urbana-Champaign (UIUC) working on biomimetic nano-structured materials and has lectured nationally and internationally on both technical and international security subjects.

In 2000, Kosal co-founded a sensor company, where she led research on biological, chemical, and explosive detection and spearheaded efforts toward the real-world applications of the technology. Previously, Kosal has held positions at Stanford University's Center for International Security and Cooperation (CISAC), Northwestern University's Feinburg School of Medicine, the Monterey Institute of International Studies' (MIIS) Center for Nonproliferation Studies (CNS), and the Naval Postgraduate School (NPS).

She has been recognized across the U.S. federal government for her leadership as part of the interagency Nonproliferation and Arms Control Technology Working Group, as DoD representative to the group charged with leading the National Nanotechnology Initiative, in the NATO Nanotechnology for Defense Working Group, and more recently as an Associate to the National Intelligence Council (NIC).

Dr. Kosal is the author of Nanotechnology for Chemical and Biological Defense (Springer Academic Publishers, 2009), which explores scenarios and strategies regarding the benefits and potential proliferation threats of nanotechnology and other emerging sciences for international security.

Featured Presenter's Bio's: Sean McFate



THE COLLEGE OF INTERNATIONAL SECURITY AFFAIRS



Prior to joining the College, Professor McFate was a Program Director on national security issues at the Bipartisan Policy Center, a Washington DC think tank founded by former senate majority leaders Bob Dole, George Mitchell, Howard Baker, and Tom Daschle.

Professor McFate also helped design and lead several U.S. stabilization programs in Africa, particularly in Liberia and Burundi. Prior to this he was a policy adviser for Amnesty International USA, specializing in foreign security forces training and human rights. He also served as an officer in the U.S. Army, primarily as a paratrooper in the 82nd Airborne Division.

Sean has published in *African Affairs*, *Military Review*, *RUSI Journal*, *Review of African Political Economy* and a *US Institute of Peace Special Report* on security sector reform. He has authored several book chapters in edited volumes on foreign affairs and was a contributor to *The Encyclopedia of Intelligence and Counterintelligence* and also *War Crimes and Trials: A Historical Encyclopedia*.

Sean is an expert in foreign policy and national security strategy. His focus includes privatization of security, security sector reform, sub-Saharan Africa, and future trends in armed conflict.