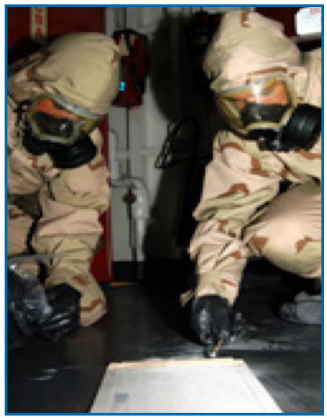
NATIONAL CENTER FOR THE STUDY OF PREPAREDNESS AND CATASTROPHIC EVENT RESPONSE

A consortium of leading universities, premier corporations with extensive research and development infrastructure, and key government and national organizations have joined together to create the *National Center for the Study of Preparedness and Catastrophic Event Response (PACER)*. The consortium, led by Johns Hopkins University and sponsored by the U.S. Department of Homeland Security (DHS), is organized to engage in multi-disciplinary, trans-institutional research to create knowledge directed toward increased national preparedness against weapons of mass destruction and other catastrophic high-consequence events. The mission of PACER is to establish the scientific foundation for and principles of the practice of preparedness and response to catastrophic high-consequence events.



Guiding Principles—The Center will:

- Focus on high impact Chemical, Biological, Radiological, Nuclear, and Explosive events (CBRNE)
- Conduct inquiries that serve the goals of the Department of Homeland Security (DHS) and the National Response Plan (NRP)
- Major clients within DHS are the Preparedness Directorate and the Office of Chief Medical Officer. Our work ultimately is relevant to first responders at all levels
- Engage all levels of government, the public and private sectors for a fully integrated approach
- Leverage the diverse resources of our partners to augment efforts
- Develop educational programs and concepts for broad dissemination to train future leaders, experts, and scholars; and the center members will implement models of these
- Engage in appropriate efforts to achieve sustainability
- Maintain flexibility, given the potential changing threats and the need to be prepared for all hazards.

Specific Research and Educational Goals—PACER has organized its research along four content and expertise domains: Preparedness Theory and Practice; Response Networks; Analysis, Modeling and Simulation; and Science,Technology and Engineering. The Center has highlighted four multidisciplinary, trans-institutional investigations of high priority problems, as identified by DHS. In addition, PACER has domain-specific projects of importance that involve multiple institutions.

The four major “Integrated” projects will be:

1) Develop a robust tool that allows Risk Ready Assessments for appropriate planning and resource allocation at all levels;
2) Determine the best means for formal networks to harness the considerable response and surge capacity of informal networks;
3) Integrate complex modeling and simulation platforms to allow simultaneous modeling of multiple variable effects (e.g. environmental effects, human behavior, decision making) and response strategies; and
4) Identify best means of communications and means for data fusion to promote situational awareness and critical decision making.

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In addition to the four content and expertise areas, PACER's education initiatives represent the culminating element of its efforts. The goal of the education program is to create an infrastructure that develops and cultivates the knowledge leaders of tomorrow in the field of catastrophic high-consequence event preparedness and response. The educational resources of the combined institutions reach through all levels, geographic areas, and social and ethnic groups.

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Major Collaborating Partners and Lead Investigator

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University of Alabama at Birmingham (UAB): Thomas Terndrup, M.D., Director, Center for Emergency Care and Disaster Preparedness, Professor and Chair, Department of Emergency Medicine

University of Buffalo (UB): Michael D. Moskal, M.B.A., Principal Engineer, Calspan-University at Buffalo Research Center (CUBRC)

Florida State Universities Consortium: (represents: **FAMU, FSU, USF, FAU**) Jackie Cattani, Ph.D., Director, Center for Biologic Defense, USF

The Brookings Institution: Joshua Epstein, Ph.D., Senior Fellow, Director, Center on Social and Economic Dynamics

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Chemical, Biological, and Radiological Technology Alliance (CBRTA): K. John Poornour, Ph.D. Chair, CBRTA Alliance

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