



**Homeland
Security**

Science and Technology

Criminal Investigations and Network Analysis Center (CINA)

A DHS Center of Excellence

CINA develops strategies and solutions to enhance criminal network analysis, forensics, and investigative processes for on-the-ground use by agents and officers to counteract transnational crime.

LAUNCH ▶

2017

PARTNERS ▶

More than 16 university, nonprofit, and research and development partners

EXPERTISE ▶

Network analysis, forensic science, criminology, multimedia content analysis, data analytics, social media analysis, criminal investigations, voice and video analytics

DHS ALIGNMENT ▶

U.S. Immigration and Customs Enforcement, U.S. Customs and Border Protection, U.S. Coast Guard, Federal Law Enforcement Training Center, U.S. Secret Service, DHS Office of Policy, Transportation Security Administration

Research and Education Capabilities

- Criminal network analysis and predictive analytics
- Dynamic patterns of criminal activity analysis
- Voice and video forensics
- Education and training for the current and future homeland security workforce



**Criminal Investigations
and Network Analysis**
A DHS CENTER OF EXCELLENCE

A nationwide consortium led by:

George Mason University

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Fairfax, VA 22030



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cina.gmu.edu



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Feedback from Our Partners

*"By partnering with George Mason University and other institutions, our agents will be able to work with **cutting-edge tools and research that will shape how we combat the growing threat of transnational crime.**"*

Derek N. Benner, Acting Executive Associate Director
Homeland Security Investigations, U.S. Immigration and Customs Enforcement, 2017

*"Our selection committee tapped Mason to lead the center **due to its researchers' tremendous scientific expertise to analyze criminal activity across multiple domains**—physical, cyber, social media—and their ability to act quickly and efficiently."*

Dr. Matthew Clark, Former Director
DHS S&T Office of University Programs, 2017

University Partners

Baruch College (CUNY), NY*
Carnegie Mellon University, PA
Diné College, AZ *
Eastern Carolina University, NC
Eastern New Mexico University, NM*
Michigan State University, MI
Purdue University, IN
Rensselaer Polytechnic Institute, NY
Rutgers University, NJ
Temple University, PA
Trinity Washington University, DC*
University of Notre Dame, IN
University of Texas, San Antonio, TX
Virginia Tech University, VA

**Minority Serving Institution (MSI)*

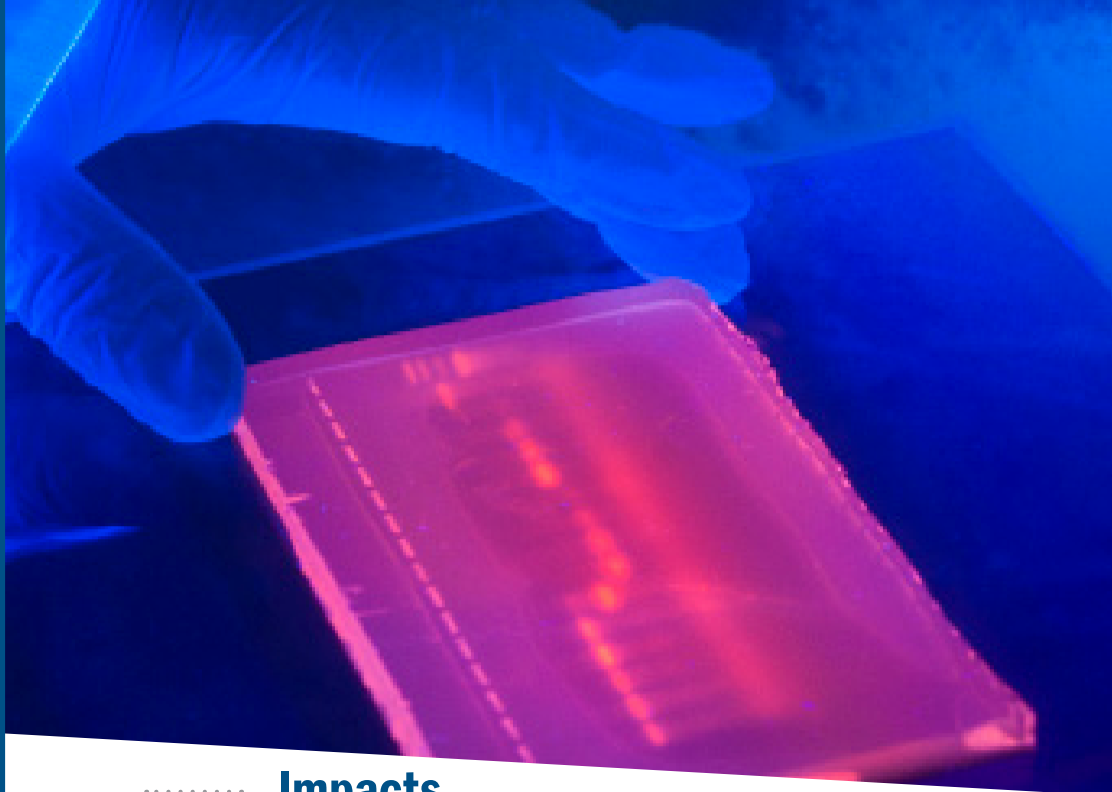
Enterprise Partners

MIT Lincoln Laboratory
Polaris



For a complete list of partners
and more information, please visit
cina.gmu.edu

For more information on DHS
Centers of Excellence, please visit
www.dhs.gov/science-and-technology/centers-excellence



Impacts



Advancing our understanding of the structure and operations of criminal networks

Transnational criminal organizations operate across the nexus of physical, cyber, and social space. CINA researchers are developing innovative approaches to understanding the complex structure and operations of such networks and how to counter criminal activity.



Harvesting actionable knowledge through social media and open source analytics

CINA researchers are using open worldwide sources such as news feeds, social media, and crowd-harvested content to complement authoritative data to monitor criminal activities and identify complex patterns across time and place.



Developing multimedia analytics to support investigations

CINA investigators are developing innovative audio and video analytics solutions to support a broad array of operations, ranging from assessing the veracity of distress calls received by the U.S. Coast Guard, to enhancing video surveillance operations.



Disrupting human trafficking

CINA researchers are collaborating with nonprofit organizations and government agencies to better understand the international footprint and complex nature of human trafficking in the United States.



Developing digital forensics solutions

CINA researchers are developing solutions that allow digital forensics operations to rapidly assess whether digital content relevant to an on-going investigation may be present in previously acquired digital media.