



GRYPHON SCIENTIFIC

Science. Security. Strategy.

Points of Contact:

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Team Members:

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Corporate and Personnel Information

- Specialized small business
- Approximately 50 full-time employees, about half of whom have Ph.D. degrees in the life sciences, including genetics, synthetic biology, and microbiology
- Significant scientific network of academic, industry, nonprofit, and governmental scientists
- Employees skilled in data analysis and computational modelling
- Staff experienced with security, law enforcement, and intelligence
- Staff with experience in developing innovative research methodology and translating scientific results to inform security and policy questions

Relevant Past and Current Projects

- Influenza surveillance, agriculture biosurveillance, and human pathogen surveillance programs
- Evaluation of global biological surveillance platforms and pathogen screening tools
- Comparative risk analysis of genome editing tools and traditional genetic engineering approaches
- Risk analysis of enhanced and advanced biological agents
- Risk and benefit assessment of gain-of-function respiratory pathogens
- User analysis and requirements-setting of pathogen detection systems
- Communications support and development of data standards for the Centers of Excellence for Influenza Research and Surveillance
- Study of mechanisms for attribution of modified organisms

Areas of Interest

- Understanding potential molecular scars that occur repeatedly and in a statistically-significant, predictable manner after editing
- Evaluating the suitability of current genome databases for data analysis and for test and evaluation of detection technologies
- Defining requirements for detection of molecular scars
 - Evaluating the accuracy and reliability of methods for detecting the molecular scars
 - Examining new technology advances that could improve detection capabilities beyond current methods

Seeking Partners with...

- Laboratory facilities and capabilities
- Knowledge and skill in data science tools, such as learning algorithms, image processing, natural language processing, and distributed computing
- Experience with life science datasets, including –omics data
- Complementary capabilities and interest areas

We can...

- Translate policy and security concerns to inform research design
- Analyze scientific and technical information from literature, patent applications, commercial resources, and conference presentations
- Define and validate approaches to enhance computational data analysis
- Conduct data-driven analyses to address complex science, security, and health questions

Kavita M. Berger, Ph.D.

Scientist

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