

# HEALTH SECURITY INNOVATION CHALLENGE

JANUARY – JULY 2025

## COMPANY DESCRIPTION & MISSION STATEMENT:

TechConnect, in partnership with ATI and federal sponsors, launched the Health Security Innovation Challenge to identify breakthrough technologies that strengthen U.S. preparedness and response against biological, chemical, and radiological threats. The program sought to engage a broad community of startups, academic labs, and non-traditional defense contractors to surface solutions that could transition quickly into the nation's health security ecosystem.

The challenge aligned with U.S. government priorities in countering weapons of mass destruction (CWMD) and medical countermeasure development (MCDC), while also offering innovators a platform to access federal partners, investors, and commercialization pathways.

## THE CHALLENGE:

The motivation for this challenge was three-fold:

### Rapidly Evolving Threats:

From emerging viruses to synthetic biology risks, the health security landscape is dynamic and requires proactive innovation.

### Critical Gaps in Preparedness:

From emerging viruses to synthetic biology risks, the health security landscape is dynamic and requires proactive innovation.

### Need for Dual-Use Solutions:

From emerging viruses to synthetic biology risks, the health security landscape is dynamic and requires proactive innovation.

**\$200K**

IN PRIZES  
AWARDED

**6**

WINNERS

**62%**

INTERESTED IN BECOMING A MEMBER  
OF CWMD AND MCDC CONSORTIUMS

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## THE OPPORTUNITY:

The Health Security Innovation Challenge represented a unique entry point for innovators to showcase solutions to consortia with a direct line to JPEO-CBRND, BARDA, DTRA, and other agencies. Applicants were encouraged to demonstrate solutions across six critical areas:

- Adaptive & Autonomous Systems
- Advanced Treatments
- Integrated Protection & Response
- Next-Gen Prevention
- Smart Diagnostics
- Threat Detection

This wide aperture created opportunities for solutions at all technology readiness levels, from early prototypes to near-commercial products.

## THE SOLUTION:

TechConnect designed and executed a multi-channel outreach and evaluation campaign to identify, recruit, and vet participants.

### Marketing Reach:

Targeted email campaigns reached an average of 143,494 recipients per send, generating an average open rate of 29.7% and click-through of 2.7%. Ten LinkedIn posts further boosted visibility, earning 3,263 impressions with a 9.1% engagement rate.

### Applicant Pool:

The challenge attracted dozens of submissions from across the U.S. and internationally, with strong representation in Adaptive & Autonomous Systems (33.7%), Advanced Treatments (27.1%), and Smart Diagnostics (9.6%)

### Diversity of Development Stages:

50% of applicants submitted prototypes, while 20.5% were at proven manufacturability and nearly 10% were ready-to-market solutions, ensuring a balance of near-term and long-term opportunities.

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## THE PROGRAM:

### *Challenge Design*

As is standard operating procedure, all public-facing Sprint content was developed by TechConnect with editorial insight and approval by the client to ensure correct messaging and intent. The TechConnect team primarily consisted of project and program management experts while the client was represented by the technical point of contact for the project.

### *Challenge Design & Outreach*

TechConnect crafted public-facing materials and executed targeted outreach campaigns, leveraging its global network and innovation platforms to recruit both established and non-traditional defense participants.

### *Submissions & Evaluations*

Applicants were reviewed against technical criteria and alignment with sponsor priorities. Finalists were invited to present during a dedicated session at the CWMD/MCDC member meeting in Baltimore on July 23 where six winners were named and \$200K in prizes were awarded by a review panel including technical experts, investors, and representatives from the consortium:

- **First Place: Humanetics Corporation:** BIO 300, a Pre-Exposure Radioprotectant
- **First Place: Matregenix:** Next-Generation PFAS-Free Protective Materials for CBRN Defense
- **Second Place: PercuSense, Inc:** The ChemWatch Monitoring System
- **Second Place: Rapidly Emerging Antiviral Drug Development Initiative (READDI):** Iron-Dome-like portfolio of broad-spectrum, small-molecule antiviral therapeutics intended to combat any catastrophic viral threat.
- **Third Place: Inhance Digital Corporation:** Virtual Health Platform (VHP)
- **Third Place: Signature Science, LLC:** SEQ-OUT: Universal Biothreat Detection

## RESULTS & BENEFITS:

Pipeline of Solutions: The challenge surfaced over 60 high-potential innovations, including early-stage research and near-commercial systems ready for pilot testing.

- **Government & Industry Engagement:** Finalists gained exposure to expert evaluators, consortium pathways, and contracting opportunities, accelerating their commercialization potential.
- **Community Impact:** With 62% of applicants expressing interest in joining CWMD and MCDC consortia, the challenge successfully expanded the pipeline of non-traditional innovators into federally funded programs

By the conclusion of the Health Security Innovation Challenge, TechConnect had delivered on its mission: connecting innovators with government and industry partners, while providing sponsors with a menu of vetted solutions that directly address critical health security gaps.