

SAND2013-3758C

# A Biological Threat Prevention Strategy

*Complicating Adversary Acquisition and Misuse of Biological Agents*

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# INTRODUCTION

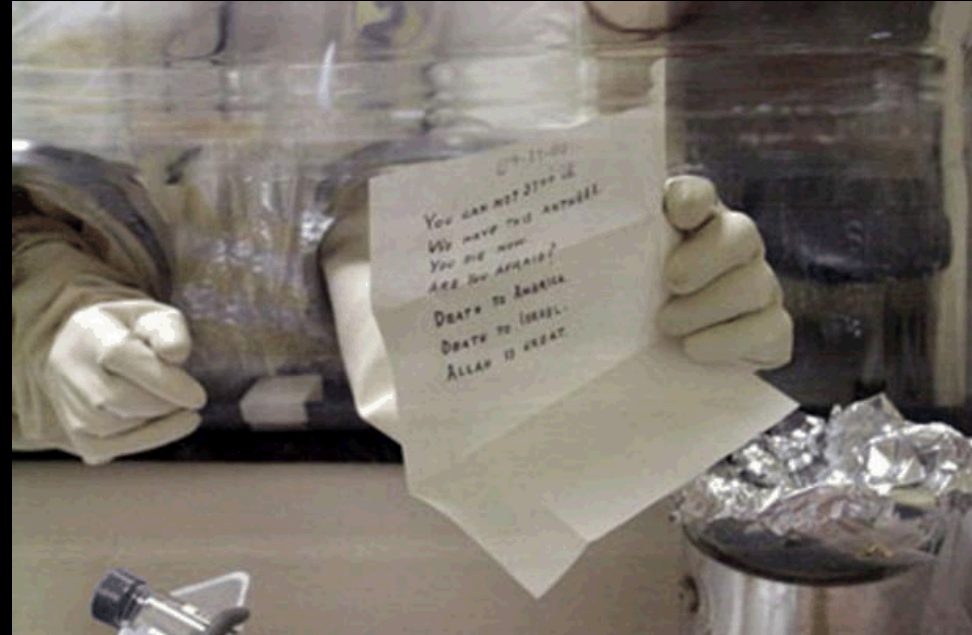
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- » Current U.S. bio threat prevention policy contains a contradiction at its core
- » United States incurs the full cost of implementing an unmatched domestic biosecurity system
- » But remains vulnerable to gaps in international bio threat prevention

# RISK OF A BIOLOGICAL ATTACK IS EVER-PRESENT

- » Relevant knowledge and material are becoming ever more widely available
- » Global dispersion and rapid advances in technology
- » Inherent dual-use nature of biology



# US DOMESTIC CONTROLS

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- » USA PATRIOT Act
- » Select Agent Program
- » Export licenses
- » Import permits
- » Recombinant DNA guidelines
- » Biosafety guidelines
- » Dual-use research of concern

# GROWING INTERNATIONAL CAPACITY







# RISE OF DO IT YOURSELF BIOLOGY

# USG BIO THREAT PREVENTION



- » Department of Defense
- » Department of State
- » Centers for Disease Control and Prevention
- » US Department of Agriculture
- » ...

## GAP IN US POLICIES

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- » Unfortunately, this work is largely bilateral, leaving the majority of countries unengaged
- » Global components of U.S. policy are less well resourced compared to bilateral outreach





# PATCHWORK OF POLICIES & PROGRAMS



- » Canada, Australia, United Kingdom
- » Denmark, Japan, Singapore, South Korea
- » Brazil, China, India
- » Developing world countries

# A BETTER BALANCE?

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- » Significant US domestic biosecurity system
- » Absence of a global framework for bio threat prevention
- » Either relax the domestic biosecurity system or advocate for global adherence to a prevention framework



## ACTION STEP #1

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- » What bio threat prevention efforts are worthwhile?
- » Systematically weigh costs and benefits

## ACTION STEP #2

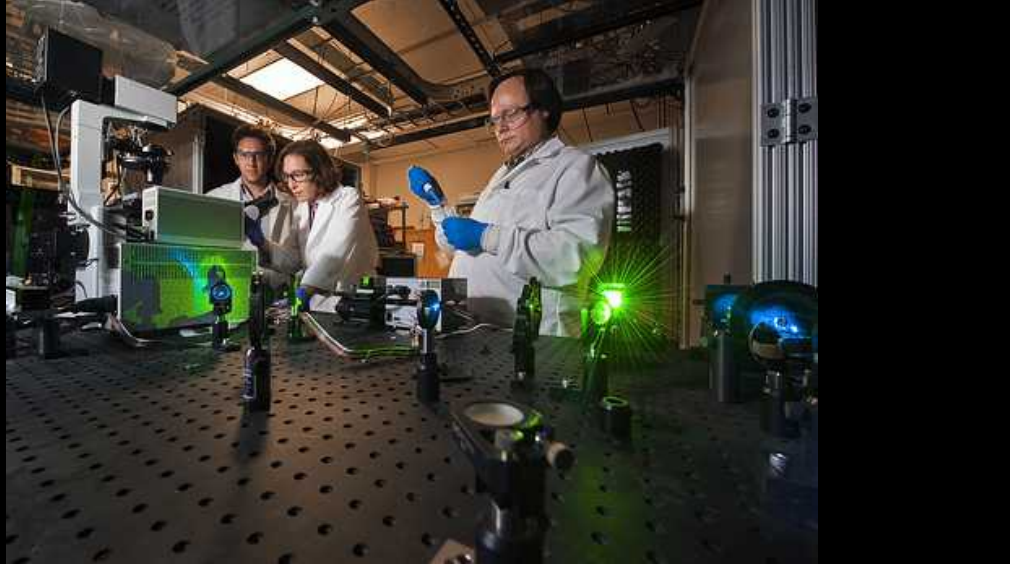
- » What is the optimal set of prevention measures?
- » Consider the number and diversity of relevant actors





# GLOBAL STANDARDS

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- » International best practices
- » Complement international outreach and assistance
- » If the community desired, they could lead to:
  - » Accreditation or certification systems
  - » Expectations for publication
  - » National regulations

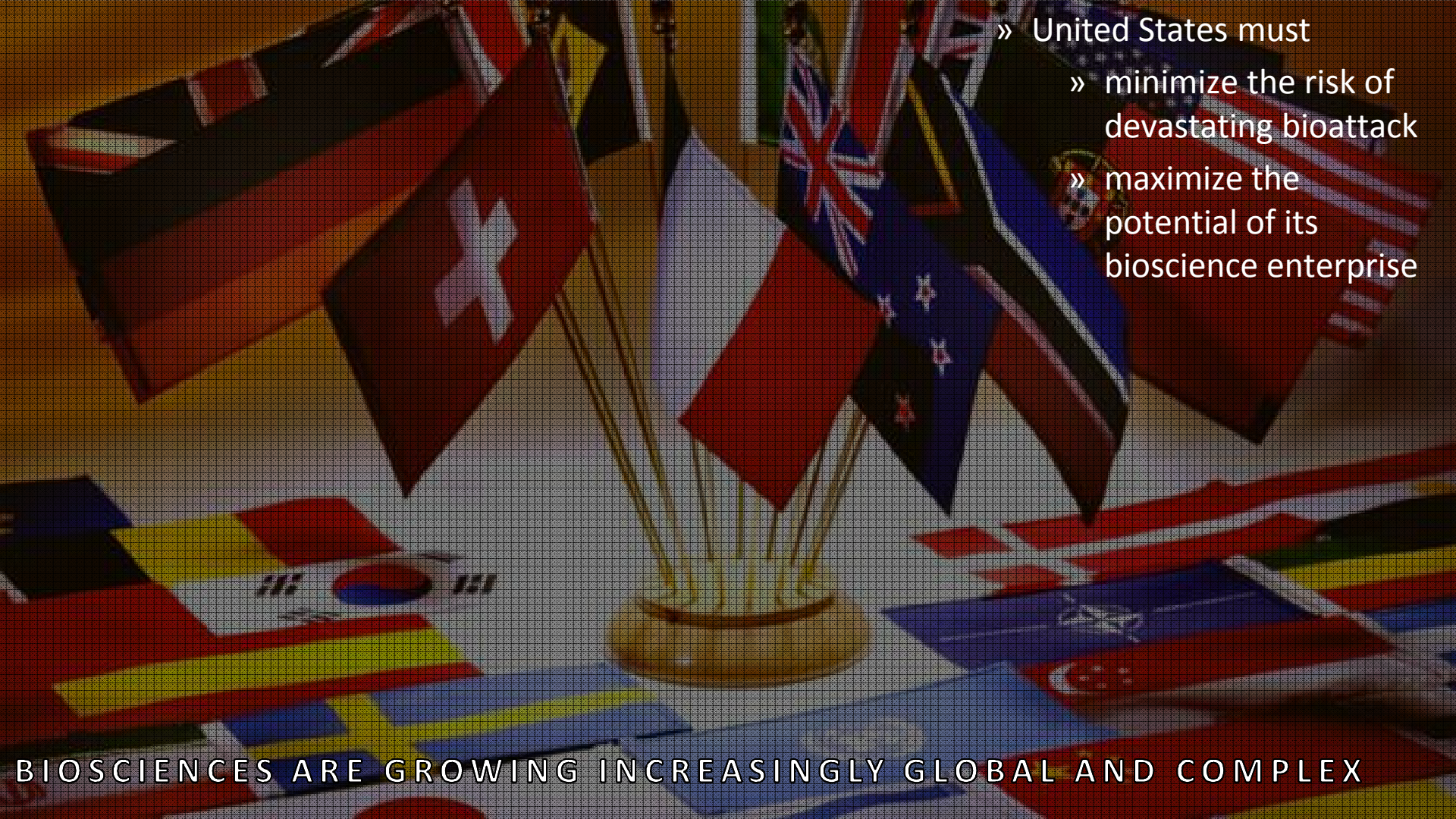


## ACTION STEP #3

- » What is the tactical plan for securing broadest adoption?
- » Knit together and secure commitment from diverse communities





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- » United States must
    - » minimize the risk of devastating bioattack
    - » maximize the potential of its bioscience enterprise

BIOSCIENCES ARE GROWING INCREASINGLY GLOBAL AND COMPLEX



# CONCLUSION

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- » New bio threat prevention policy with three components
  - » High-level assessment of the costs and benefits
  - » Identification of the optimal content of domestic policies and global initiatives
  - » Robust, broadly supported tactical plan to pursue these measures

