Filovirus MCM Portfolio

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Viral Hemorrhagic Fever Threats

• Ebola and Marburg viruses, causative agents of viral hemorrhagic fevers, are some of the most virulent pathogens known
• Mortality rates approach 90%
• Natural reservoir is unknown
VHF Threats (cont’d)

- Disease characterized by a sudden onset of fever, headache, myalgias, gastrointestinal symptoms, and severe coagulopathy
- Caused by four families of viruses: arenavirus, bunyavirus, flavivirus, and filovirus
- Threat determination currently limited to filovirus
Marburg and Ebola viruses

- Treatment and post-exposure prophylaxis
- No requirement for vaccines or pre-exposure prophylaxis
- Combination of products may be necessary
# Integrated Filovirus Therapeutic Pipeline (September 2013)

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- **Inhibikase; Gleevec repurposing**
  - **Novartis; SMIPs toolbox**
  - **USAMRIID/Zalicus; screen of FDA approved drugs for filovirus activity**
  - **USAMRIID; IgG Marburg and Ebola**
  - **Drexel; Glucosidase inhibitors Ebola**
    - **Tekmira; Ebola, siRNA platform**
    - **Sarepta; Marburg, phosphorodiamidate morpholino oligomers platform**
    - **Biocryst, RNA polymerase inhibitor; Ebola and Marburg**
    - **Mapp; monoclonals against Ebola Zaire (NIAID & DTRA funded)**
  - **Unither; glycosidase inhibitor, Ebola**
  - **Univ. Washington (Gale) IRF-3 pathway activators for Ebola**
  - **Defyrus, IFN alpha Ad5 vector (Canadian funding)**
  - **PHAC, Zmab antibody cocktail (Canadian funding)**

**Vanilla Funded**
- **NIH Funded**
- **DoD Funded**
- **= Host target**
- **= Viral target**

**ASPR: Resilient People. Healthy Communities. A Nation Prepared.**
BARDA VHF Approach

- Integrated project team to address MCMs, animal models, and diagnostics
- Close cooperation with existing filovirus efforts outside BARDA (e.g., NIAID and DoD)
- Multiple MCM candidates to increase chance of success
- More than one MCM needed for successful treatment
- Pathogen and host targets, immunomodulators
VHF Portfolio

• Call for white papers
  – BAA 13-100-SOL-00013 available at FedBizOpps.gov
  – Area 2.3 Development of antibody treatments and other therapeutic agents for viral hemorrhagic fevers viruses. Programs must be at TRL-5 or higher with a lead candidate identified.

• Proof of concept data required
  – Time after exposure or therapeutic trigger

• Seeking access to products for testing and evaluation of therapeutic value and synergy with other products in animal models
Interacting with BARDA

- [www.phemce.gov](http://www.phemce.gov) — Program description, information, and announcements
- [www.medicalcountermeasures.gov](http://www.medicalcountermeasures.gov) — Portal to BARDA
  — Request a meeting or register for conferences
- [www.fedbizopps.gob](http://www.fedbizopps.gob) — Official announcements and detailed information about all USG contract solicitations
- [stephen.morris@hhs.gov](mailto:stephen.morris@hhs.gov) — Help and clarification