



BARDA INDUSTRY DAY

BARDA Radiological and Nuclear Countermeasures Program

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Radiological and Nuclear Countermeasures Branch
CBRN Division

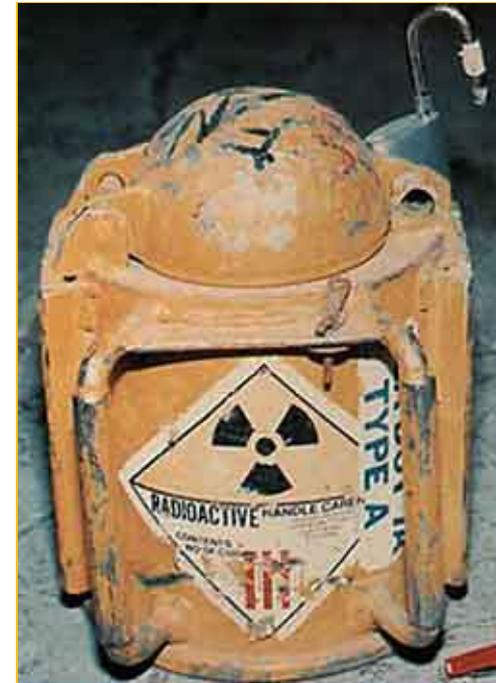
October 29-30, 2018 | Grand Hyatt • Washington, D.C.



Radiological / Nuclear Threat Landscape

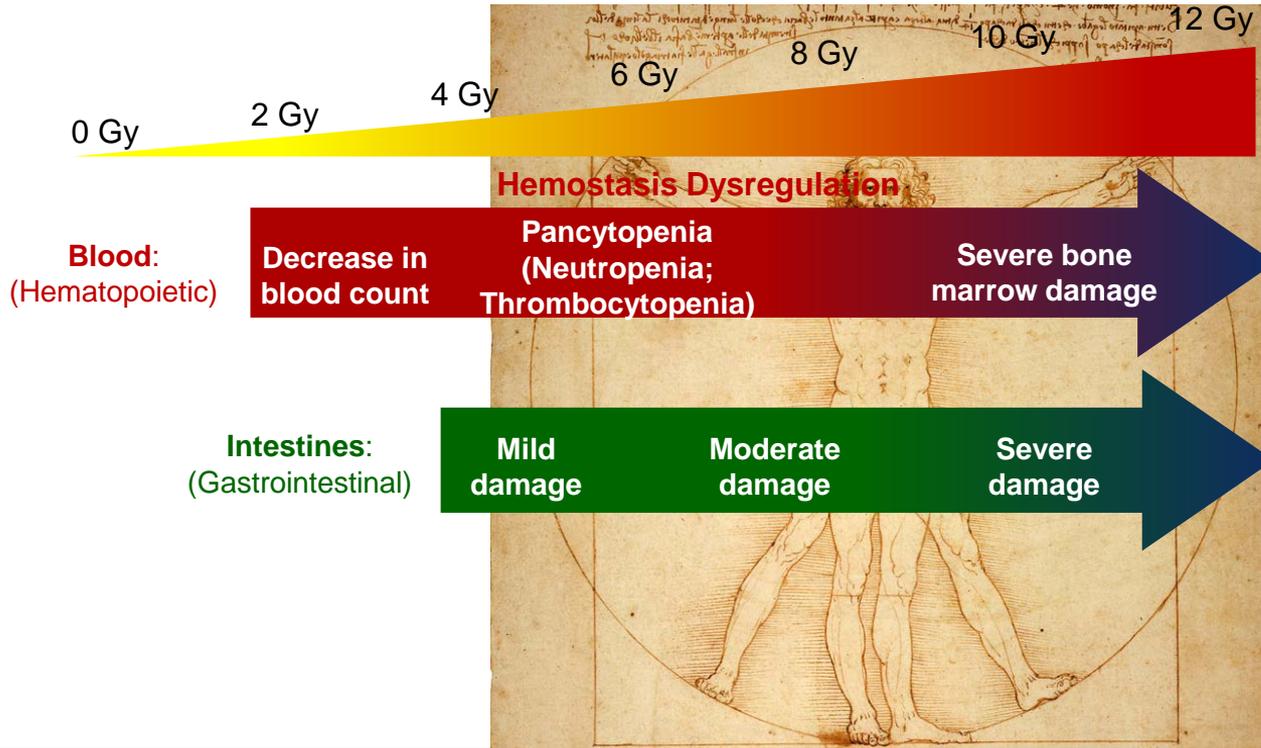


Nuclear Detonation



Radiation Dispersal Device

Systemic Damage Occurs Across Radiation Syndromes



Damage manifests in organ systems

Ablation of the hematopoietic system increases risk for bleeding, infection, and organ damage

Thrombocytopenia
BLEEDING



Anemia
HYPOXIA



Neutropenia

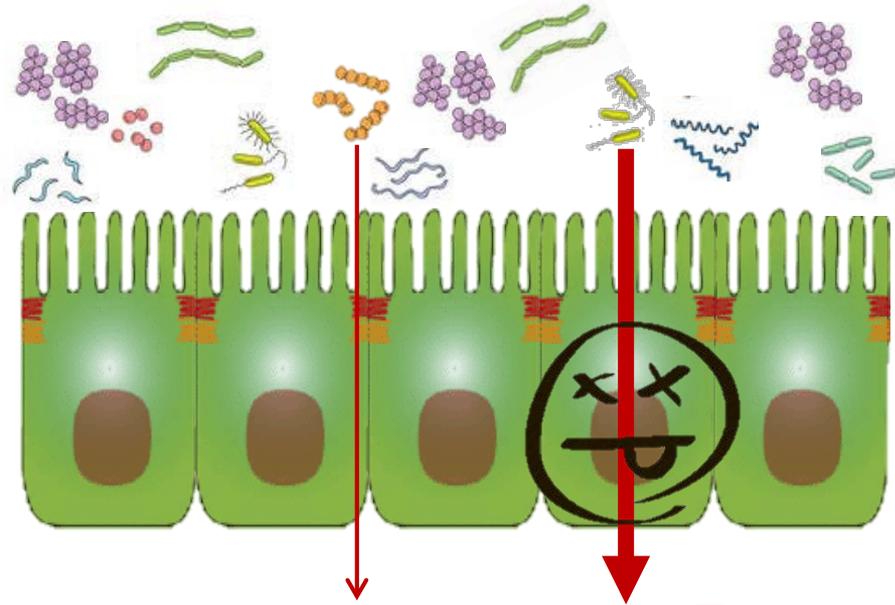


INFECTION

Lymphopenia



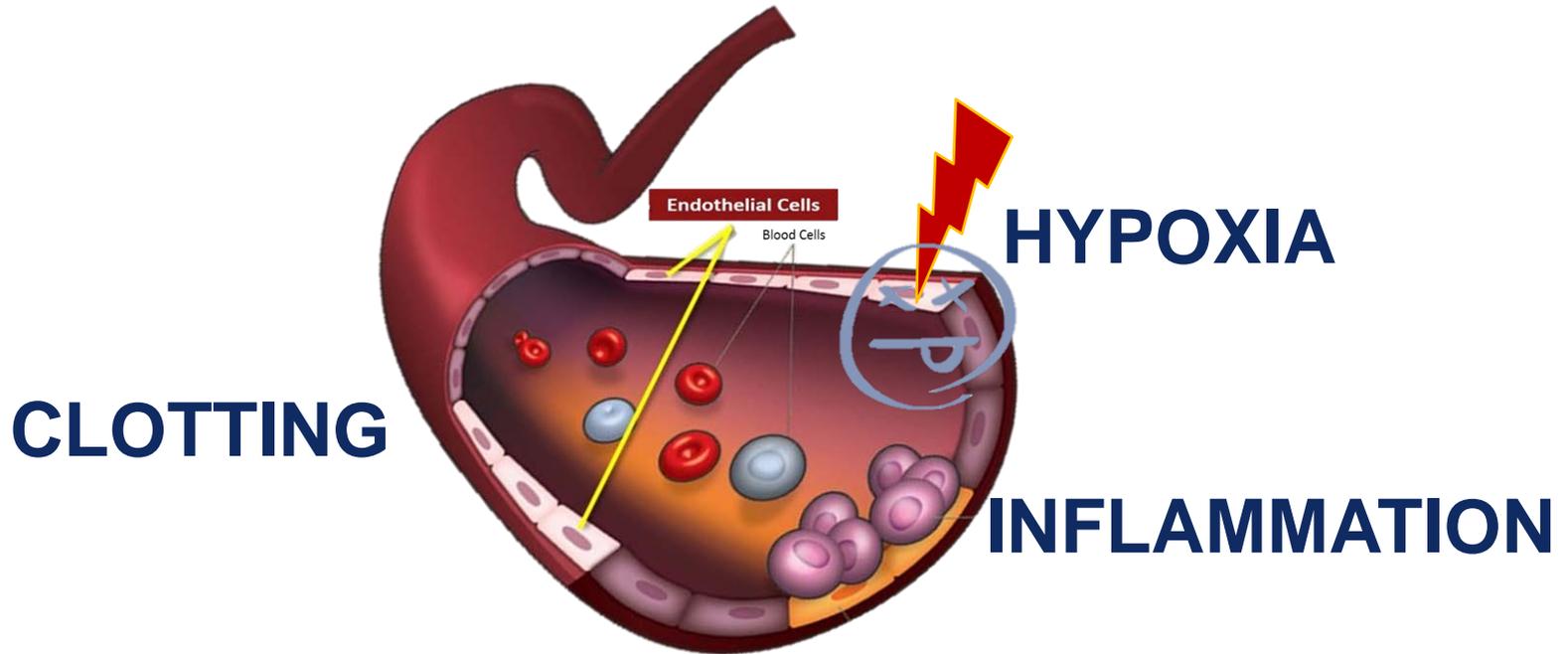
Impaired immune function and loss of epithelial integrity creates conditions for opportunistic infections



SEPSIS

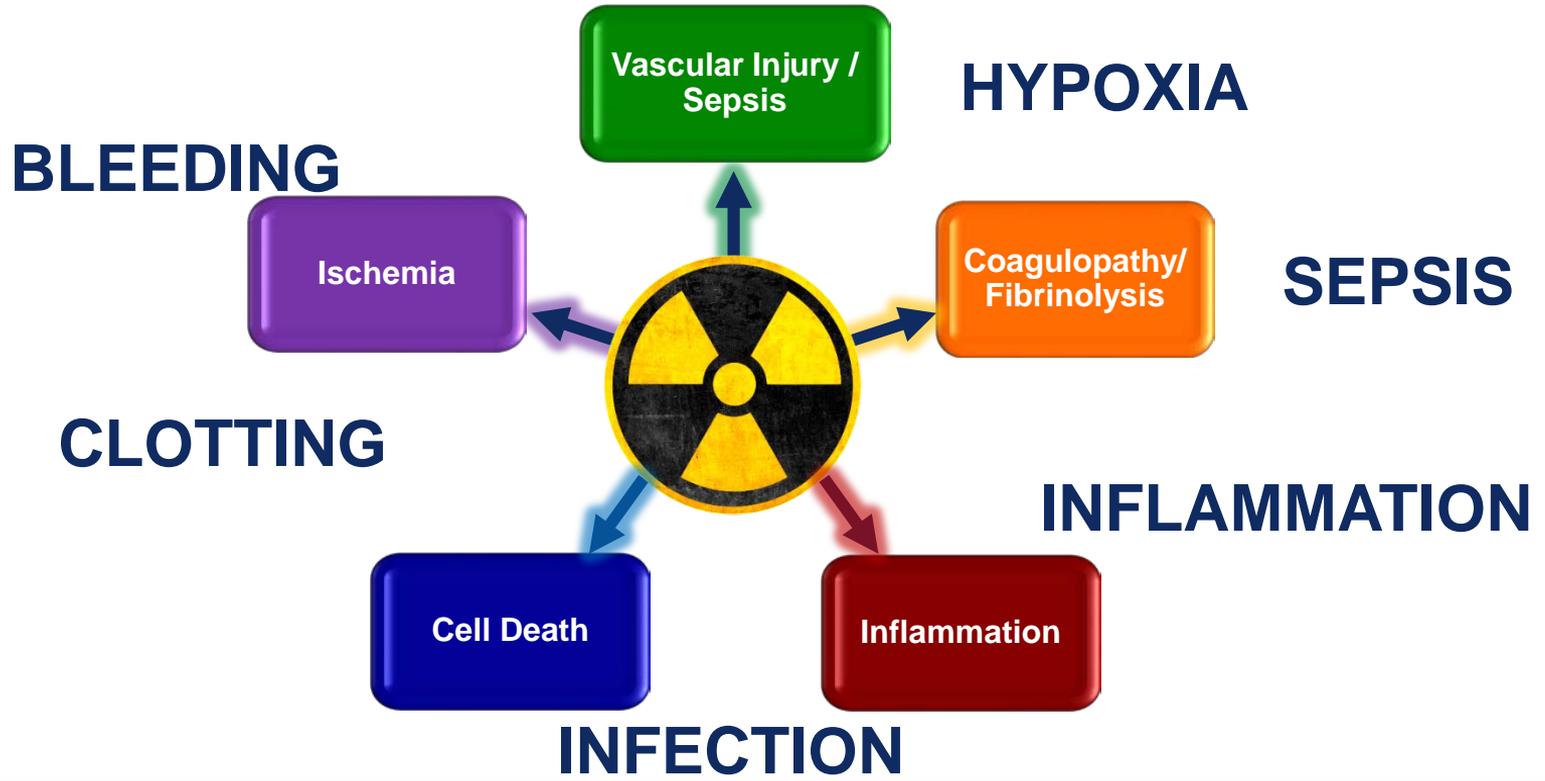
Bacterial Translocation

Damage to the vasculature will impact global organ function





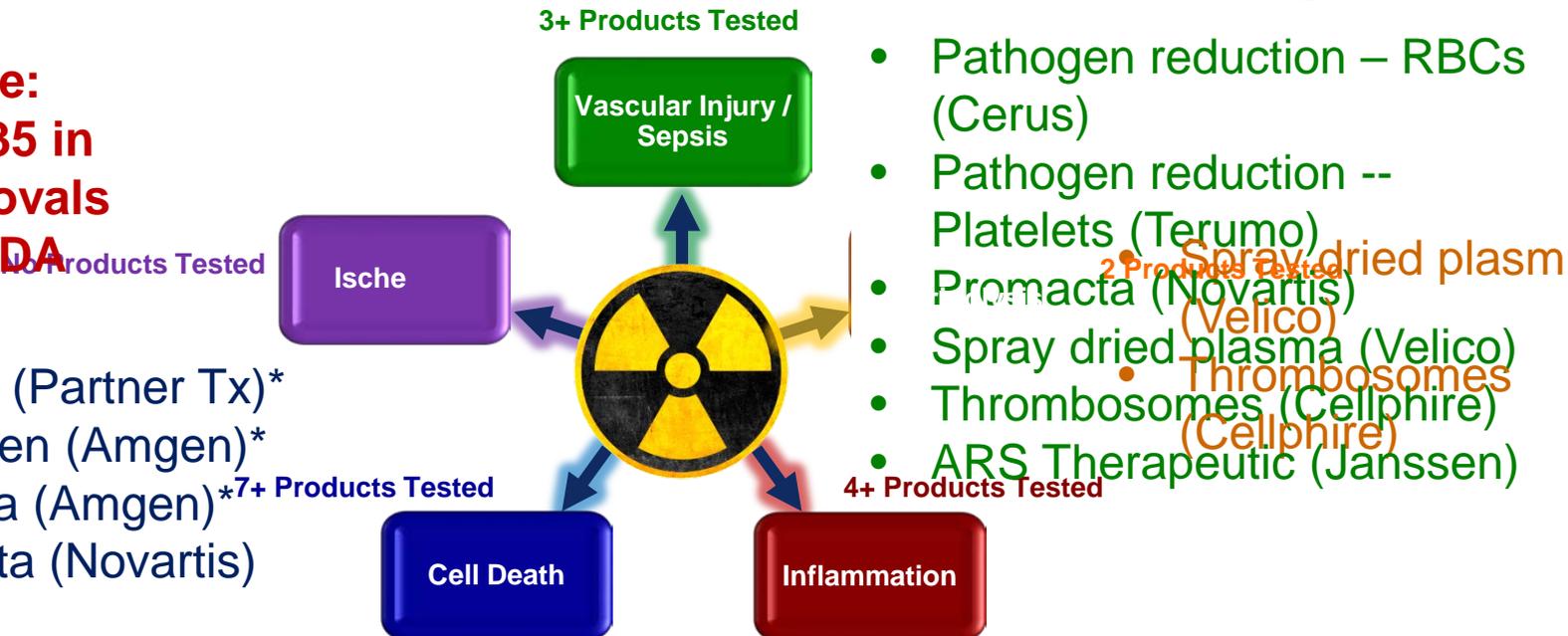
Targeted Natural History for MCM Development



Current Portfolio and Product Testing

**Leukine:
Number 35 in
FDA approvals
for BARDA**

- Leukine (Partner Tx)*
- Neupogen (Amgen)*
- Neulasta (Amgen)*
- Promacta (Novartis)



- Pathogen reduction – RBCs (Cerus)
- Pathogen reduction -- Platelets (Terumo)
- Promacta (Novartis)
- Spray dried plasma (Velico)
- Thrombosomes (Cellphire)
- ARS Therapeutic (Janssen)

**Breakout session, Tuesday, October 30th 2:15 - 3:15:
Developing Nonclinical Models with Partners**



Examples of Repurposing in BARDA's Rad/Nuc Portfolio

PTX PARTNER THERAPEUTICS



AMGEN
NEUPOGEN[®]
(FILGRASTIM)



AMGEN
Neulasta[®]
(pegfilgrastim) injection



CERUS
INTERCEPT
BLOOD SYSTEM



TERUMOBCT
Unlocking the Potential of Blood



NOVARTIS
PROMACTA[®]
(eltrombopag)
25mg, 50mg, 75mg tablets



ASPR
ASSISTANT SECRETARY FOR
PREPAREDNESS AND RESPONSE



Saving Lives. Protecting Americans.



VELICO MEDICAL
 TRANSFORMING TRANSFUSION MEDICINE
 FrontlineODP (On Demand Plasma)



TERUMOBCT
 Unlocking the Potential of Blood



NIH
 National Institute of Allergy and Infectious Diseases
 National Heart, Lung, and Blood Institute

Platform and Transformative Technologies

Targeted Natural History and Product Testing



Novel Partnerships



Unique Business Models



Enabling Regulatory Strategies



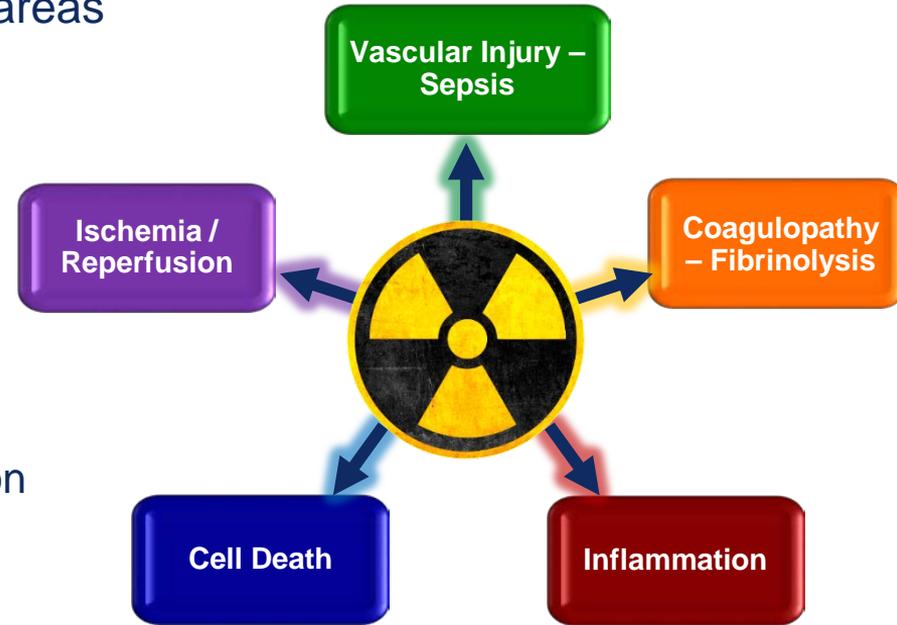
ASPR
 ASSISTANT SECRETARY FOR
 PREPAREDNESS AND RESPONSE



Saving Lives. Protecting Americans.

Looking Forward

- Strategy continues based on polypharmacy and repurposing approaches
- Looking to leverage across other threat areas
 - Mechanical trauma
 - Thermal burn
 - Chemical injury
 - Infectious diseases
- Highest treatment priorities:
 - Neutropenia (cellular therapies)
 - Thrombocytopenia
 - Vascular injury/Sepsis
 - Coagulopathy/Hemostatic dysregulation
 - UPCOMING: Inflammation



BARDA Rad/Nuc Team

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How to Contact BARDA



Medical
Countermeasures.gov

[medicalcountermeasures.gov/home.aspx](https://www.mediccountermeasures.gov/home.aspx)

Portal to BARDA: **Register to request a TechWatch meeting!**



www.fbo.gov/
("FedBizOpps")

Official announcements and
info for all government
contract solicitations



[https://www.phe.gov/about/
BARDA/Pages/default.aspx](https://www.phe.gov/about/BARDA/Pages/default.aspx)

Program description, information,
news, announcements



www.drive.hhs.gov

DRIVE questions

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