Rapid Development and Deployment of Monoclonal Antibodies for the Prevention and Treatment of Infectious Disease

Global Presence
Our international research expertise will make your project a success anywhere in the world.

Countermeasures for Pathogens of Concern
- HIV
  - Krebs, et al, Immunity, 2019
- Zika, Dengue 1-4
  - Dussupt, et al, Nature Medicine, 2020
- SARS-CoV-2, SARS-CoV-1
  - Dussupt, et al, Nature Immunology, 2021

Monoclonal Antibodies (mAbs)
- Provides immediate prophylactic protection, and protection lasts 6-9 months
- Therapeutic use post-exposure to limit disease; can be combined with antibiotics
- Development from Discovery through Preclinical testing less than 4 months
- Path for FDA approval is generally faster compared to small-drug molecules or vaccines

Monoclonal Antibodies Development Pipelines
1. Samples from sites around the world
2. Isolate mAbs from convalescent patients
3. B cell sorting, sequencing, expression of mAbs, down selection of mAbs
4. Functional and biochemical assays

Monoclonal Antibodies Development Pipelines
- Rapid Prophylaxis and Treatment Development: WRAIR-2125 COVID-19 mAbs
- MAY: Cycles of isolating and characterizing mAbs completed. WRAIR-2125 neutralizes the original strain of SARS-CoV2, all current circulating variants of concern, as well as other human coronaviruses.
- OCTOBER: Start of cGMP process development and manufacturing activities for WRAIR-2125.

HJF Capabilities to enable Innovation Development
- Identify & apply for research funding opportunities
- Identify talent & build research teams/labs
- Administer & manage research programs/projects
- Strategic translation of innovations through existing partnerships/licensing
- Recruitment & execution of clinical trials through network of worldwide sites.
- Communication & Public Relations

HJF Major Research Areas of Interest
- Oncology, Chemical, Biological and Radiological Defense, Clinical/Rehabilitative Research, Combat Casualty Care, Human Performance, Infectious Disease, Precision Medicine, Traumatic Brain Injury/Post-traumatic Stress Disorder/Mental Health

Contact
techtransfer@hjf.org
Dr. Shelly Krebs at Skrebs@HIVResearch.org

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Notes:
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Modified from Sok, et al, Nat Immunology, 2018
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