



Academic COVID-19 Responses

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COVID-19 Priorities at Inception

- **Understand the rules of infection... URGENTLY**
 - transmission
 - pathogenesis
- 1. Prevent infection (**HOW?**)
 - lessons from HIV
- 2. Treat infections (**HOW**)
 - small molecules (and their love affair with ID)
 - convalescent plasma (??)
 - mAbs enter the ID “space” with a bang
 - repurposed drugs (massive misdirection)
- 3. Cure infection (PASCU was NOT anticipated)

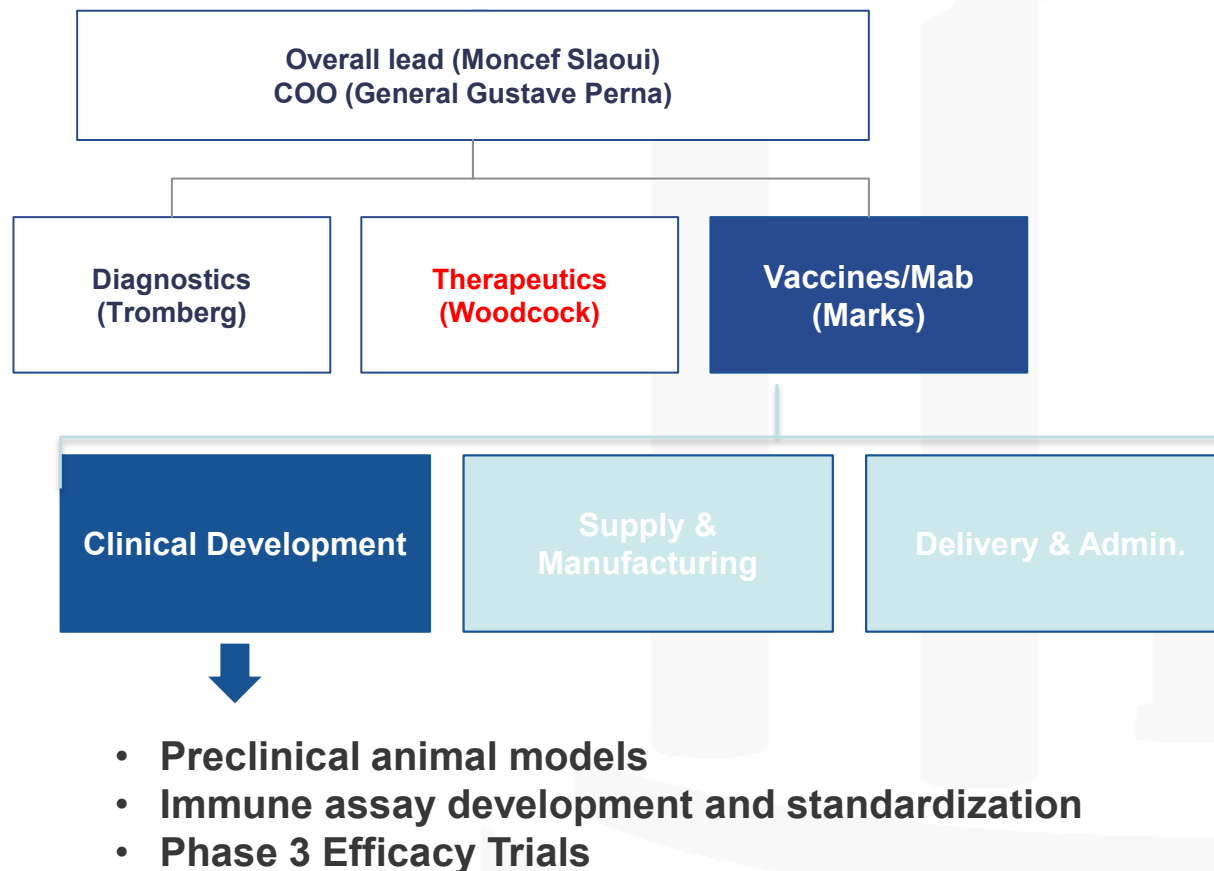


COVID-19: What Went Right





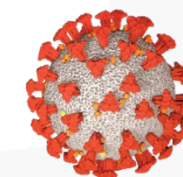
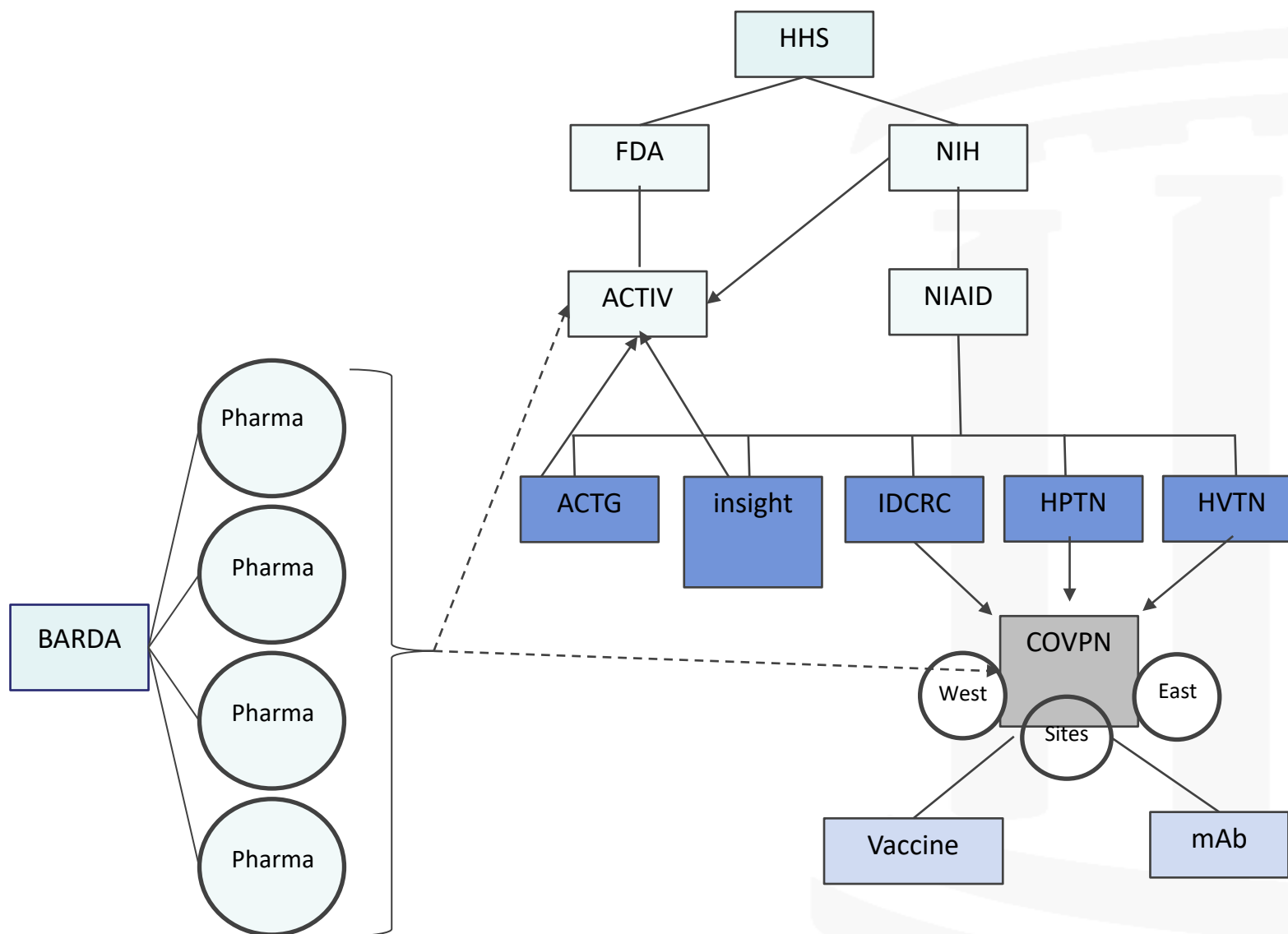
Operation Warp Speed Organizational Structure





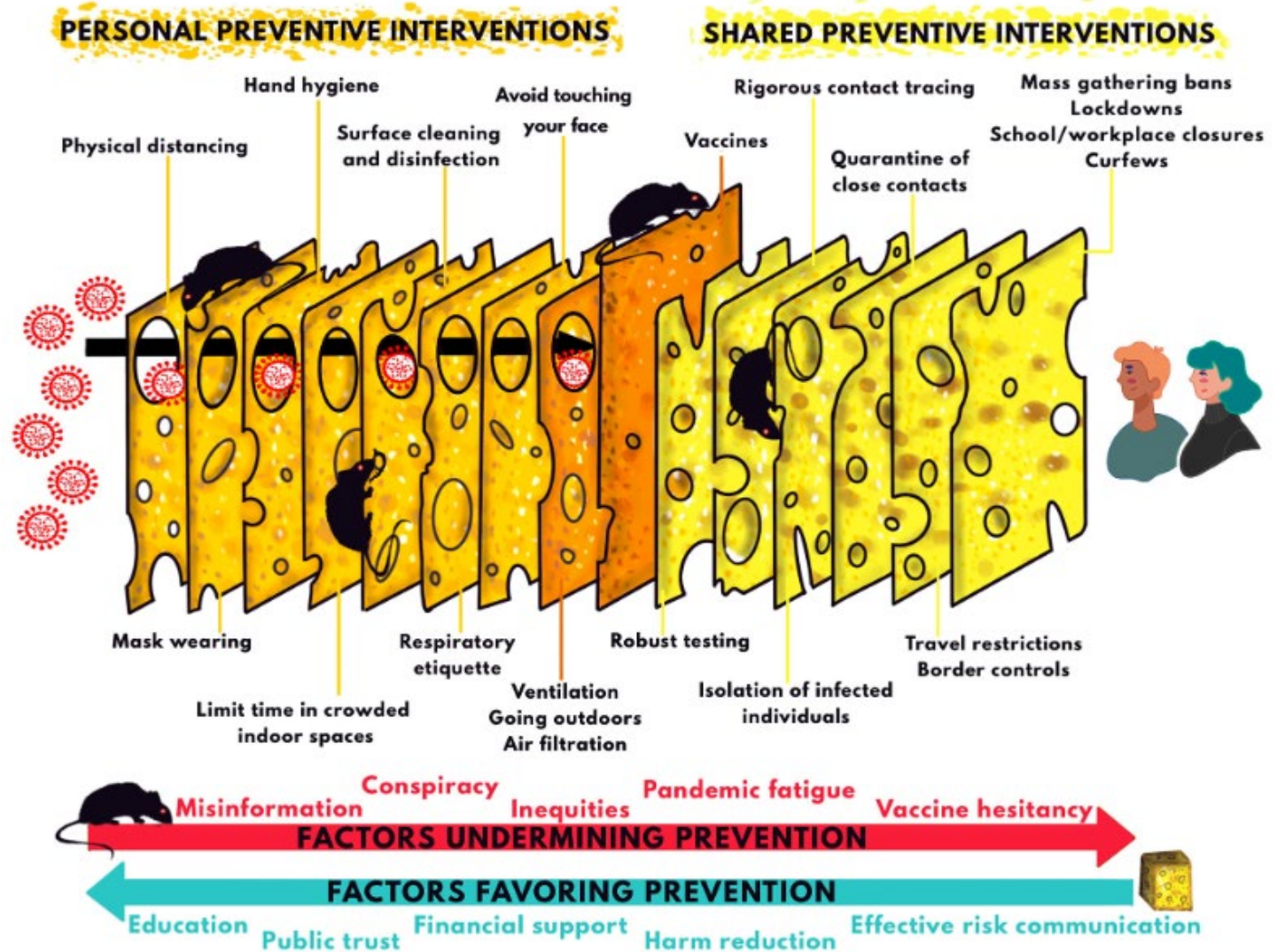
KEY

ACTG: AIDS Clinical Trials Group
ACTIV: Accelerating COVID-19 Therapeutic Interventions and Vaccines
AZ: AstraZeneca
BARDA: Biomedical Advanced Research and Development Authority
CoVPN: COVID-19 Prevention Network
FDA: Food and Drug Administration
HHS: Health and Human Services
HPTN: HIV Prevention Trials Network
HVTN: HIV Vaccine Trials Network
IDCRC: Infectious Disease Clinical Research Consortium
Insight: International Network for Strategic Initiatives in Global HIV Trials
NIAID: National Institute of Allergy and Infectious Diseases
NIH: National Institutes of Health



RATIONALE BEHIND COVID-19 MITIGATION: Lessons from HIV and ESSENTIAL EVOLUTION

EMMENTALER CHEESE RESPIRATORY PANDEMIC DEFENSE MODEL



The New York Times

One-Third of All U.S.
Coronavirus Deaths Are Nursing
Home Residents or Workers

**Covid-19 deaths in
long-term care facilities**

**All other Covid-19
deaths in the U.S.**



35%

The New York Times. [Karen Yourish](#), [K.K. Rebecca Lai](#), [Danielle Ivory](#) and [Mitch Smith](#) Updated May 11, 2020

COVID-19 Responses: What went right

- The incredible energy of the research community
- Remarkable public-private partnerships
- VERY, VERY prepared minds (again the benefits of HIV research)
- (SADLY) High incidence of Wuhan Delta SARS-CoV-2 (...RCTS)
- **Altruism of volunteers in the face of much misinformation**
- **Remarkable and flexible availability of federal funding**
- Don't count out some luck

COVID-19 Responses: What Went Wrong

- Inability to address critical questions, prospectively
- Inequities forcing urgent RCT corrections
- **Lack of prospective communication about RCTS**
- Lack of appreciation of unusual social forces compromising prevention and treatment efforts
- Lack of complete appreciation of pandemic consequences, opportunity costs
 - Biological solutions were not “in a bubble”
- **Precipitous withdrawal of research funding: 60 to 0**
- Challenging, quixotic communications with regulatory agencies
- And...were lessons learned?