UNIVERSITY OF KENTUCKY BOARD OF TRUSTEES

Lisa Cassis, Vice President for Research

University of Kentucky

AN EQUAL OPPORTUNITY UNIVERSITY

RESEARCH AND COVID-19

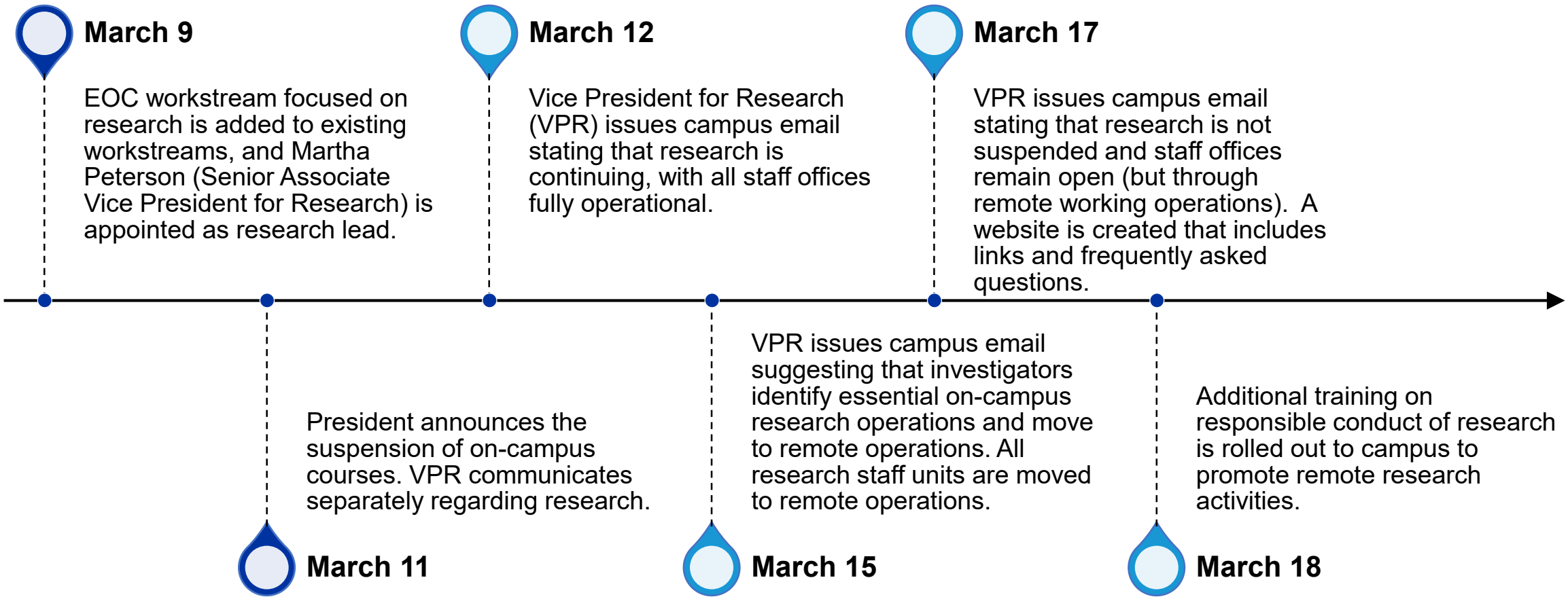
Timeline of events



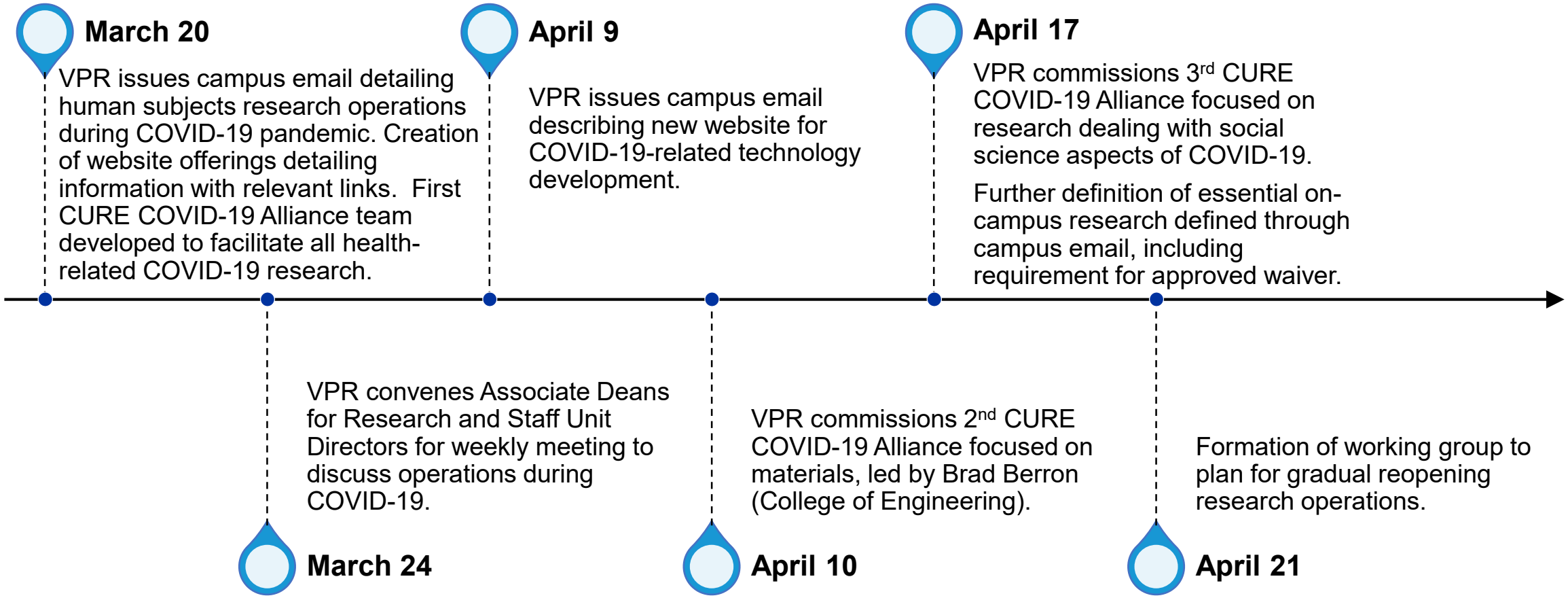
University of Kentucky

AN EQUAL OPPORTUNITY UNIVERSITY

Timeline of Events



Timeline of Events



RESEARCH AND COVID-19

Impact: Finances and Personnel



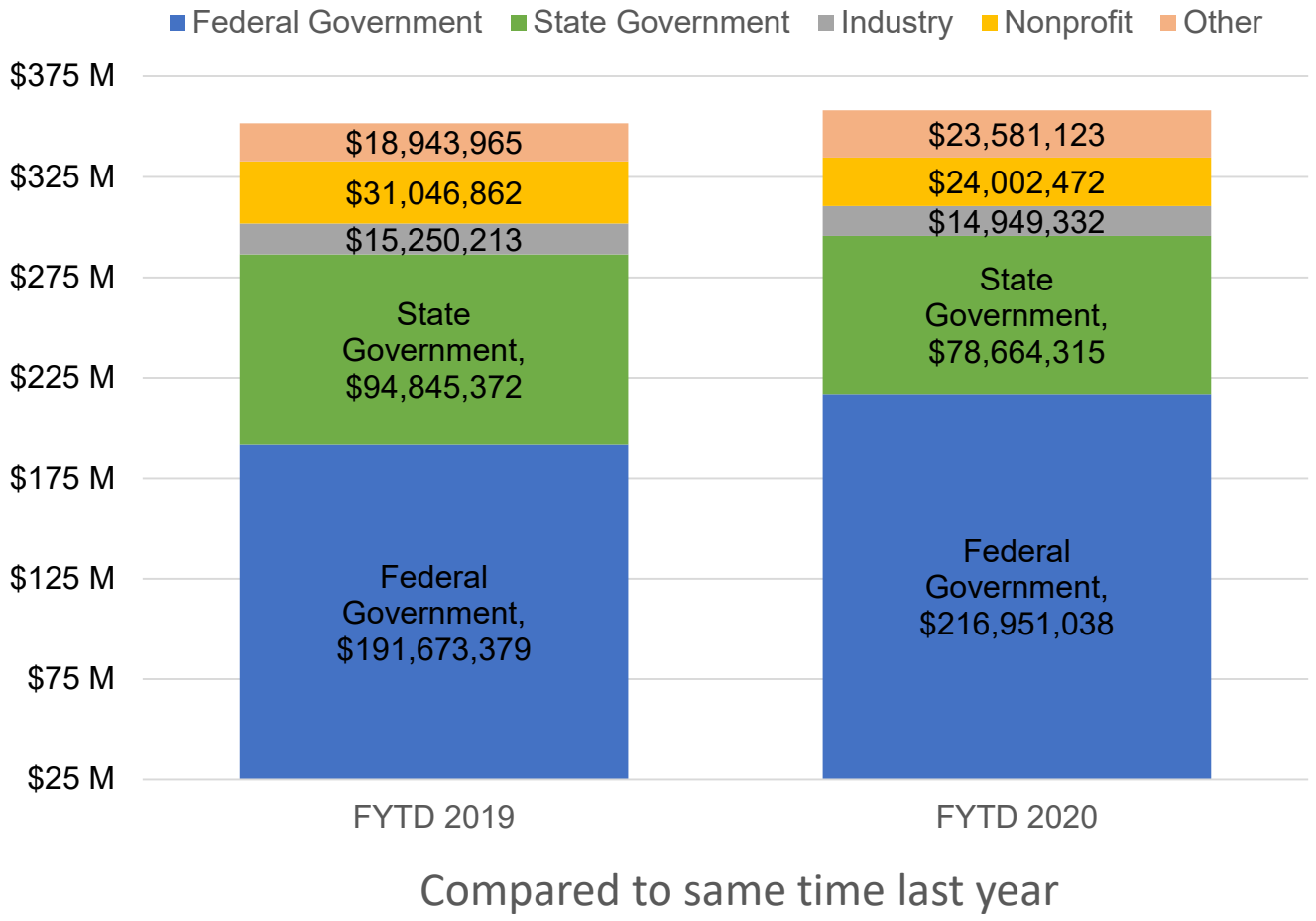
University of Kentucky

AN EQUAL OPPORTUNITY UNIVERSITY

COVID-19 Impact on Research Finances:

- Salaries plus benefits paid from extramural grants and contracts to research personnel, working remotely, are approximately **$17.3M/month**, totaling **$52M** through the end of FY2019-20. While these salaries are still being paid, much of the funded research cannot be performed as described.
- Research and development (R&D) expenditures on grants and contracts declined by 12% in March. As a result, facilities and administrative (F&A) costs that are reimbursed by funding agencies have also declined, representing a **$4.2M** reduction in this income source through the end of FY2019-20.
- However, our research enterprise continues to flourish and will be needed more than ever to develop solutions to the pandemic.

Awarded Sponsored Grants and Contracts (through April 30th): Grant Funding Continues to Grow



Compared to same time last year

Total Awards + 1.8%

Federal Awards + 13.2%

A continued increase in grant awards is on top of a 25% increase last year alone

RESEARCH AND COVID-19

Our Response



University of Kentucky

AN EQUAL OPPORTUNITY UNIVERSITY

COVID-19 and Research: Our Response, Website Materials, Policies and Procedures

- We have developed website materials to guide and instruct investigators on research activities during the pandemic:
  - General information related to COVID-19, including information on humans subjects and animal research, frequently asked questions, and links to national resources related to the pandemic (https://www.research.uky.edu/resources/covid-19-guidance-researchers)
  - Innovation and discovery related to COVID-19 (https://www.research.uky.edu/otc/covid19)
  - Information for operations on grants and contracts (https://www.research.uky.edu/office-sponsored-projects-administration/covid-19-updates)
  - Funding opportunities for COVID-19 related research (https://www.research.uky.edu/proposal-development-office/covid-19-_resources-researchers)

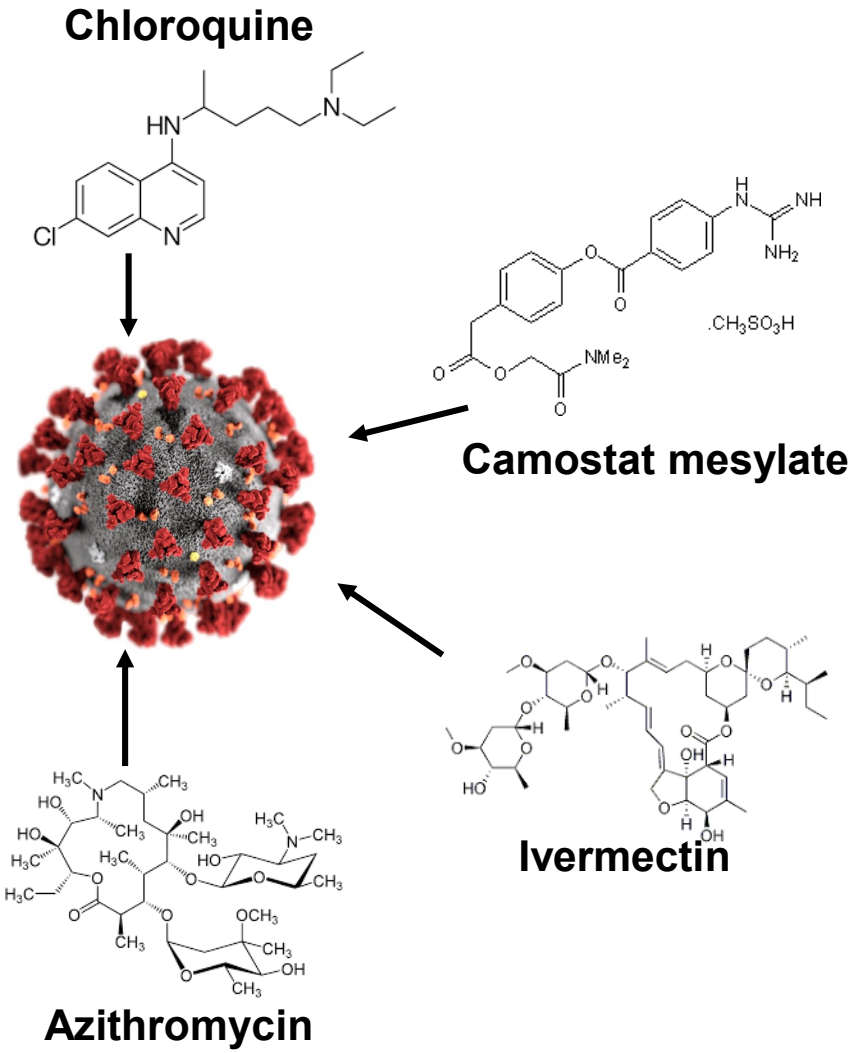
COVID-19 and Research: Our Response, Giving Our PPE to UKHC

- Laboratories across campus use gloves, masks, and other forms of Personal Protective Equipment (PPE) to ensure safety of employees
- Because of shortages, we coordinated collection of these materials that were then donated to UKHC

COVID-19 and Research: Our Response, Standing Up Research CURE Alliance Groups to Develop Solutions to the Pandemic

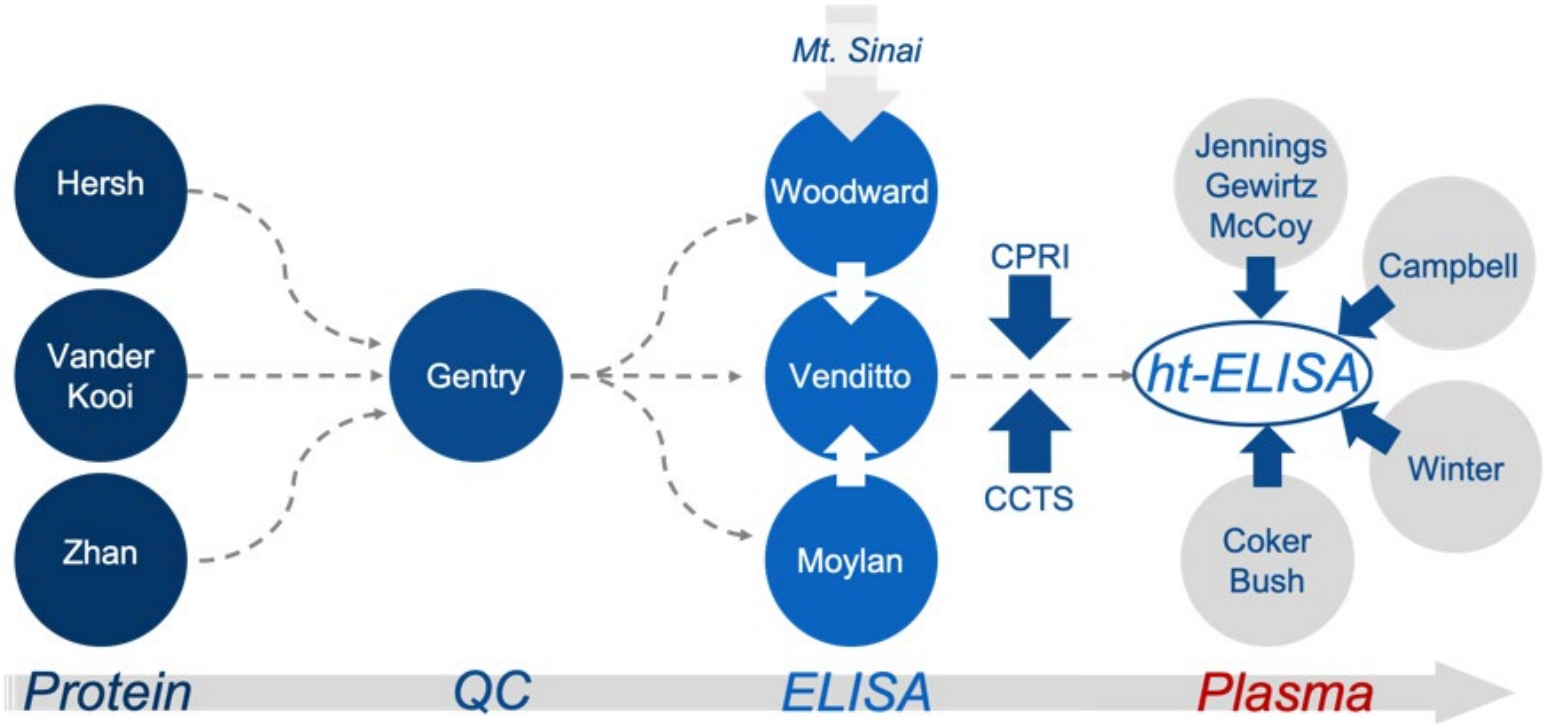
- Stood up three COVID-19 Unified Research Expert (CURE) Alliances to support COVID-19 research
  - Biomedical Research (Becky Dutch, College of Medicine)
  - Materials and Methods (Brad Berron, College of Engineering)
  - Social Sciences (Julie Cerel, College of Social Work)
- Purpose:
- To develop solutions for COVID-19-related problems at UK and in the Commonwealth,
  - To facilitate research development across disciplines addressing SARS-CoV-2 and COVID-19,
  - To coordinate research on the pandemic
  - To develop projects towards federal funding opportunities.
- Providing financial support for pilot projects, reagents, and resources

COVID-19 and Research: Our Response, Standing Up Research CURE Alliance Groups to Develop Solutions to the Pandemic, Health Care/Biomedical (Therapeutics)



- Multi-arm clinical trial to determine which interventions, administered soon after diagnosis, can prevent the need for hospitalization and more importantly, reduce the stay in the ICU.
- Tested drugs are chloroquine, azithromycin, ivermectin, and camostat mesylate.
- Led by Drs. Susanne Arnold (Markey Cancer Center) and Zack Porterfield (Microbiology/Infectious Disease).

COVID-19 and Research: Our Response, Standing Up Research CURE Alliance Groups to Develop Solutions to the Pandemic, Health Care/Biomedical (Testing)



Serology Working Group under CURE Healthcare Alliance:

- Goals: To enhance testing capabilities at UK to better serve the Commonwealth. This group works hand in hand with the clinical lab under UKHC.
- Products under development (to serve as back-ups for Clinical Lab Assays):
  - Active virus PCR test
  - Antibody (IgG, IgM) ELISA

COVID-19 and Research: Our Response, Standing Up Research CURE Alliance Groups to Develop Solutions to the Pandemic, Materials and Methods (Hand Sanitizer)



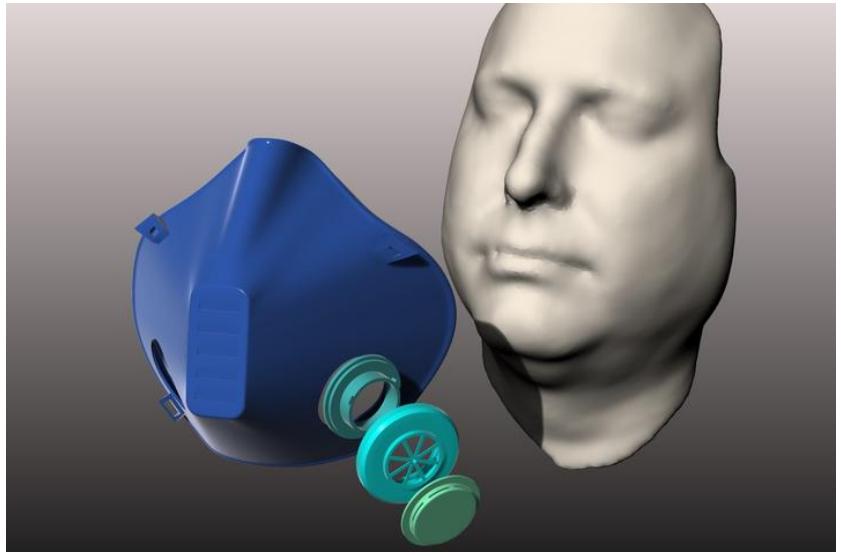


Produced:

- How-to video and guide for distillers as outreach https://beaminstitute.ca.uky.edu/#handsanitizer
- Produced 600 two-liter bottles of hand sanitizer in UK production run that were provided to UK HealthCare
- Beam Institute will produce another 700 gallons in coming weeks

Colleges of Agriculture, Food and Environment, Engineering, Arts and Sciences, and Pharmacy as well as Procurement

COVID-19 and Research: Our Response, Standing Up Research CURE Alliance Groups to Develop Solutions to the Pandemic, Materials and Methods (Masks)





- Developing novel masks that trap and inactivate SARS-CoV-2 virus (National Science Foundation RAPID Submission, College of Engineering)
- Using 3-D printing to create face shields (College of Design)

RESEARCH AND COVID-19

The Future, Research will Thrive



University of Kentucky

AN EQUAL OPPORTUNITY UNIVERSITY

COVID-19 and Research: The Future, Resumption of Research

- More than ever, research is needed to address the pandemic and prepare for the future in this new reality
- Unfortunately, our current ability to harness the full UK research enterprise is curtailed
- We have allowed COVID-19 related research to continue under specific guidelines
- Our goal: **Resume research as soon as possible**
- Toward this goal, we established a working group to plan for resumption of normal (or new normal) research
- This group of leaders will work in concert with the Emergency Operations Center
- The underlying principles of this group are to resume research operations using approaches that protect personnel and minimize exposures

COVID-19 and Research: The Future, Learning from the Pandemic

- Changes in organization around personnel activities within laboratories and in staff administrative offices
- Changes in how we do things in our research programs
- Proactive approaches to research and development in emerging areas
- Partnering with state and industry to quickly actualize innovations
- Spearheading collaborations between UKHC and researchers across the institution