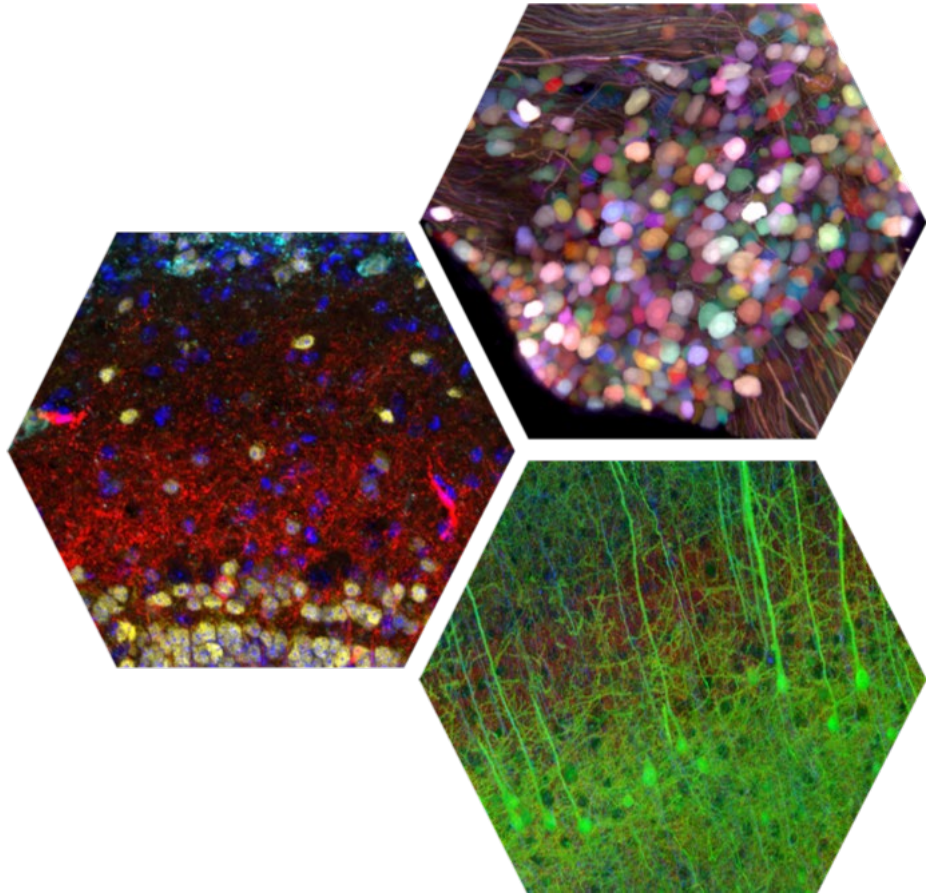
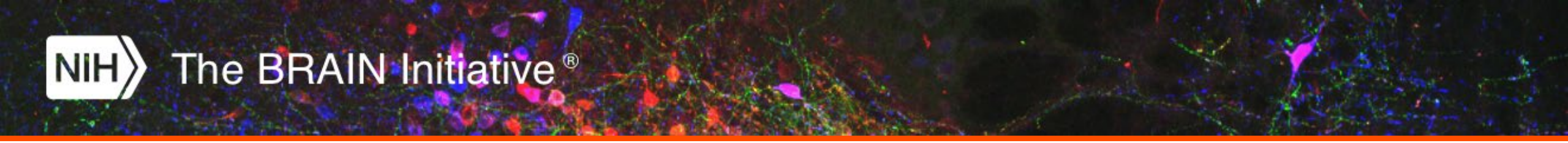


NIH The BRAIN Initiative®

Ethics and neuroethics in the time of COVID-19: what is different and what remains the same

Nina S. Hsu, Christine Grady, Saskia Hendriks, and Khara M. Ramos

Clinical Center and National Institute for Neurological Disorders and Stroke, National Institutes of Health



Please note:

This talk represents the presenters' opinions only. It does not represent the views of the NIH, DHHS, or the US government.

Goals of this presentation

- Overview and analysis of the **ethical landscape of challenges raised by the COVID-19 pandemic** within neuroscience-related disciplines

- **Summary of discussions with neurotechnology researchers** on the pandemic-related ethical challenges they may currently be facing, especially as they relate to research protocol changes
  - June 2020: Neuroethics-focused session at the BRAIN Initiative Investigators' Annual Meeting
  - August 2020: Panel at the BRAIN Neuroethics Working Group Meeting

Ethics in the time of COVID

What remains the same and what is different

Scott Y.H. Kim, MD, PhD, and Christine Grady, PhD, RN

- The current pandemic **raises ethical challenges**
  - For the healthcare system and its providers
    - Including for patients with brain diseases/disorders
  - For existing neuroscience research:
    - **Delaying or temporarily halting** certain research studies
    - **Affecting** the ability to recruit and work with trial participants
    - **Impacting** how the trial is conducted (e.g., changes in procedures)

Kim and Grady, *Neurology, 2020*

What remains the same: Core principles of ethics

- **Respect** for persons
  - Respect for autonomy
- Caring about individual and collective **welfare;** avoiding **harm**
- **Justice** and fairness
  - Treating people as equally worthy regardless of status and characteristics; fair access to and participation in societal goods

But, situations of application are different

- Scarcity of resources: need to allocate
- Social distancing and the impact on the vulnerable
- Health disparities and inequity—impact may be more apparent
- Personal responsibility challenges
- Death brought closer to mind and in fact
- Research urgency and complexity
- Need to (rapidly but accurately) communicate with public

The pandemic's impact on persons with brain disorders

- Many patients with brain disorders **depend on others** for their welfare and carrying out their wishes and are also at risk for **neglect, stigma, and discrimination**.
- A differential impact from COVID-19:
  - Disproportionately lethal in persons in care homes
  - Direct impact of the disorder on the brain?
  - Mental health impact, especially on those with pre-existing neuropsychiatric conditions

Ethical Issues: Clinical

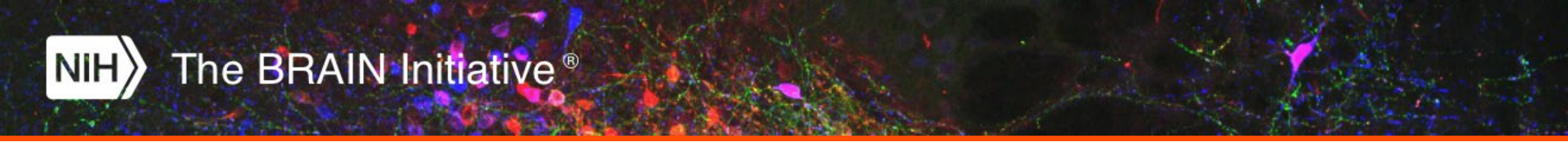
- The need for advance care planning: avoiding pitfalls while initiating necessary conversations
- Challenges of high-quality care in times of crisis
- Need to emphasize end-of-life care, including palliative care

Ethical Issues: Public Health

- Allocation in times of scarcity
  - Acquiring PPE, beds and ventilators, medications as they come on-line (e.g., Remdesivir), COVID tests and antibody tests, vaccines
- Surveillance and contact tracing
  - How do we balance privacy issues versus public health needs?
- Immunity “passports” and “licenses”
  - Antibody testing—issues with accuracy and utility
  - Could there be potential for discrimination without much gain overall?

Ethical Issues: Research/Science

- **Ethical imperative** to research the epidemiology, natural history, pathophysiology, clinical manifestations, and preventative, diagnostic, and therapeutic interventions for COVID-19
- Setting research priorities
- Conducting COVID and non-COVID research
- Ensuring researcher, staff, and participant safety
- Fair participant selection
- Identifying potential vulnerabilities of participants
- Balancing urgency with scientific rigor
- Timely dissemination of findings



What **ethical challenges** might neuroscience researchers currently be facing?

Small-group discussions at the (virtual) BRAIN Investigators Meeting

- Learned about these potential ethical challenges through small-group breakout discussions with BRAIN Initiative investigators
  - Intentionally structured to encourage active participation
  - < 8 people per group, including a neuroethicist and a discussion facilitator

> Kick-off question: What **ethical issues related to COVID** have come up **in your own practice or research**?

  - Each group reported out key points from their discussion, which we collated and summarized to highlight emerging themes

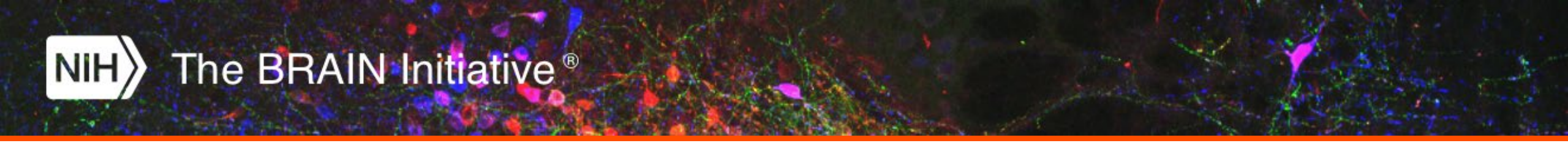
Emerging themes from small-group discussions

- **Vulnerability of research participants**
  - Changes in participant protection measures when follow-up cannot occur in a way that was originally specified
  - Discussions with patients/families when the prognosis is different than it would have been absent COVID
  - Disparities in digital access (e.g., for tele-visits)
- **Opportunity for expanding neuroethics to consider other issues**
  - Potential broadened focus on justice concerns, health disparities, and fairness in doing the science

Emerging themes from small-group discussions

- **Ethical issues associated with altering research and clinical protocols in response to COVID**
  - Modifications to scientific protocols and scientific validity
  - Changes in the risk-benefit profile, with questions on how to balance minimizing risks with enhancing benefits
  - Changes in the social value of the research

● Click here for an expansion of ethical considerations for clinical research



Thank you! We look forward to your questions and comments.

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Acknowledgements: the authors thank the presenters at the NIH BRAIN Initiative Neuroethics Working Group and its members, as well as participants and organizers of the Neuroethics-focused session at the BRAIN Investigators' Meeting.

- Click here to view the participants of the Neuroethics-focused session at the BRAIN Investigators' Meeting

Appendix Slides

Participants of neuroethics-focused session at the (virtual) BRAIN Investigators Meeting

Neuroethicists:

- Anna Wexler (Penn)
- Christine Grady (NIH)
- Cindy Kubu (Cleveland Clinic)
- Eran Klein (Washington)
- Francis Shen (Minnesota)
- Insoo Hyun (Case Western)
- Judy Illes (UBC)
- Laura Cabrera (Michigan State)
- Sara Goering (Washington)
- Scott Kim (NIH)
- Syd Johnson (SUNY Upstate)
- Winston Chiong (UCSF)

Discussion facilitators:

- Amy Adams (NINDS)
- Carl Wonders (NINDS)
- James Churchill (NIMH)
- Jenny Kim (NINDS)
- Khara Ramos (NINDS)
- Kristin Dupre (NINDS)
- Liza Litvina (NINDS)
- Moria Bittman (NIBIB)
- Nina Hsu (NINDS)
- Nina Lichtenberg (NINDS)
- Sarah Lisanby (NIMH)
- Saskia Hendriks (NIH Clinical Center)

Expansion of ethical considerations for clinical research

- Learned from panel of BRAIN-funded investigators at the August 2020 Neuroethics Working Group Meeting

> Kick-off question: What is **the single most important challenge** you've been facing while conducting research during COVID?

  - Each investigator summarized their research program and discussed ongoing challenges
  - These slides extend beyond the scope of this abstract, but we provide some points-to-consider based on conceptual analysis

- Click here to continue with this expansion
- Click here to return to ethical issues associated with research protocol changes

Expansion of ethical considerations for clinical research

- **Changes may affect indirect risks and benefits with potential importance to participants**
  - Healthy volunteers increasingly interested in paid study enrollment
  - Mental health challenges for isolated study participants seeking socialization
  - Requests for early hospital release because of COVID-related restrictions
  - Novel risk of contracting COVID-19 during study participation
- IRBs **may not need to include indirect benefits or risks** in evaluating a study, but **investigators may want to discuss any changes** with their participants
- Indirect risks & benefits often not included in a trial's risk-benefit assessment
  - But may matter to participants: investigators may wish to take these under consideration and communicate any changes to study participants

● Click here to continue with this expansion
● Click here to return to ethical issues associated with research protocol changes

Expansion of ethical considerations for clinical research

- Impact on **scientific integrity:** e.g., more requests for earlier hospital discharge, e.g., following device implantation, can limit safety monitoring
- Impact on **social value:** e.g., missed timepoints for data collection because of COVID-related restrictions that limit value of the collected knowledge
- Direct risks and benefits **may also need to be modified:** e.g., increased risk of physical harm from device implantation following protocol delays

- Alteration of a trial in potentially meaningful ways may require IRB input, but investigators will be critical in identifying when implemented protocol changes are potentially ethically significant

Click here to return to ethical issues associated with research protocol changes