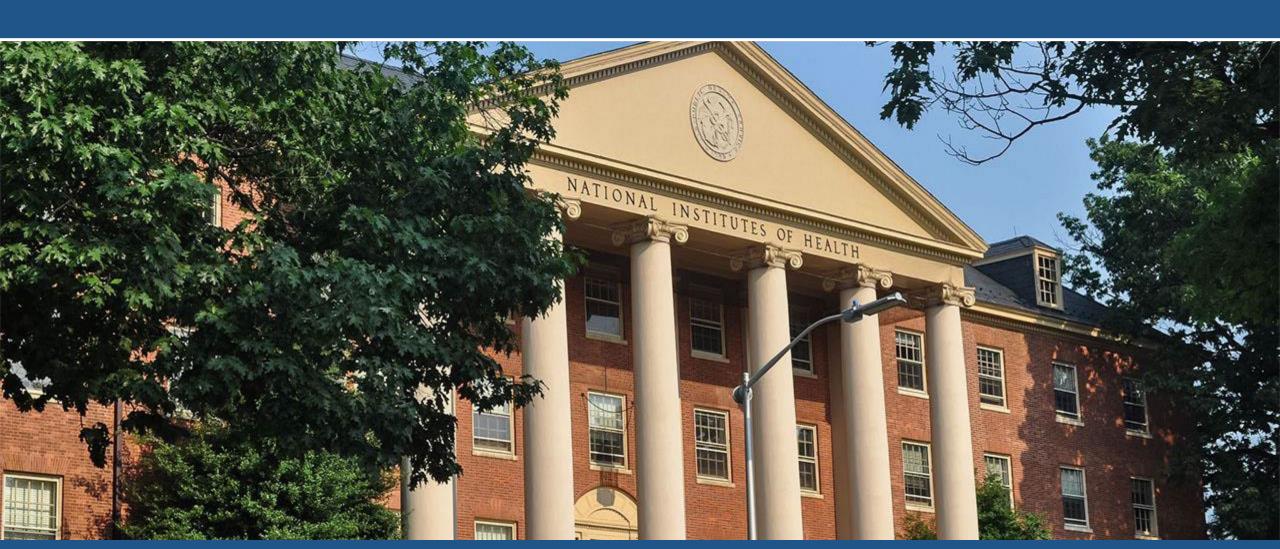
### CHIRP AlLaunchEvent Sean Mooney, PhD





#### **Providers and Al**

 Eric Topol recently posted on LinkedIn that there are now 5 reports of AI outperforming physicians, even when they use that same AI.



Jonathan Chen, Stanford

#### **Original Investigation** | Health Informatics

October 28, 2024

#### Large Language Model Influence on Diagnostic Reasoning A Randomized Clinical Trial

Ethan Goh, MBBS, MS<sup>1,2</sup>; Robert Gallo, MD<sup>3</sup>; Jason Hom, MD<sup>4</sup>; Eric Strong, MD<sup>4</sup>; Yingjie Weng, MHS<sup>5</sup>; Hannah Kerman, MD<sup>6,7</sup>; Joséphine A. Cool, MD<sup>6,7</sup>; Zahir Kanjee, MD, MPH<sup>6,7</sup>; Andrew S. Parsons, MD, MPH<sup>8</sup>; Neera Ahuja, MD<sup>4</sup>; Eric Horvitz, MD, PhD<sup>9,10</sup>; Daniel Yang, MD<sup>11</sup>; Arnold Milstein, MD<sup>2</sup>; Andrew P. J. Olson, MD<sup>12</sup>; Adam Rodman, MD, MPH<sup>6,7</sup>; Jonathan H. Chen, MD, PhD<sup>1,2,13</sup>

» Author Affiliations | Article Information

JAMA Netw Open. 2024;7(10):e2440969. doi:10.1001/jamanetworkopen.2024.40969

### A.I. Chatbots Defeated Doctors at Diagnosing Illness

A small study found ChatGPT outdid human physicians when assessing medical case histories, even when those doctors were using a chatbot.



Listen to this article · 9:25 min Learn more



### Al is Now Operational

- All is being implemented in the workplace as an advanced IT system, without a data scientist necessarily in the loop
- Examples include Office 365 message
   management/drafting (Co-pilot), minute taking
   from meetings, secure ChatGPT access like
   CHIRP
- Responsible AI takes a new meaning, we must ensure that implementations are effective, safe, legal, ethical, and equitable



## Timely Access to Advanced AI is critical for NIH Research

- LLMs are causing disruption, both opportunities and challenges, throughout the world
- In biomedicine, construction of foundation models from vast biotechnology data sets is a considerable activity and LLMs are being deployed in healthcare settings
- IRP access to these methods is critical for our role



### Considerations

- Operational AI tools are advanced IT systems and must be treated as such, including going through IT/cybersecurity governance.
- They must be secure and approved for the type of data being shared with them (e.g. confidential federal information).
- Operational Use Cases are reported to NIH through a data call in response to M-24-10.
- Rights and/or safety impacting AI tools should be flagged.
- In my opinion, any use of an AI that will result in a different work product of an individual than if the individual did their work and did not use an AI, it's use should be considered and evaluated carefully.

## CHIRP is an example of an advanced IT system providing operational AI in support of research

- A great collaboration between the IRP, ODSS, enterprise computing, and others. A model for others.
- I expect this will continue the deployment of systems like this to support researchers
- I want to acknowledge the many individuals who contributed to make CHIRP successful including, but not limited to, Yang Fann, Nick Weber, Susan Gregurick, and Maureen Falvella



### NIH Operational AI Systems ('Use Cases' from Data Call)

77 of the 195 use cases are non-retired, operational AI not qualified as R&D or productivity COTS. Of the 77:

27

Relates to Grants
Management

**97**Of the 195 are R&D

16

**Include a Chatbot** 

9

of the 195 use cases are non-retired productivity COTS

68

Include natural language processing (inclusive of chatbots)

**12** 

Are retired use cases



# Today's Information Technology, Tomorrow's Cyberinfrastructure

## Thank You!