



**DEPARTMENT OF MEDICINE**

**OFFICE OF THE CHAIRMAN**

5841 S. Maryland Avenue, MC 6092 Chicago, IL 60637-1470

Phone 773-702-1051; Fax 773-702-4427

Everett E. Vokes, M.D.

Chairman, Department of Medicine

John E. Ulmann Distinguished Service Professor

Physician in Chief, University of Chicago Medicine & Biological Sciences

evokes@medicine.bsd.uchicago.edu

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Department of Defense

Peer Reviewed Medical Research Program

Discovery Award

Re: Ishanu Chattopadhyay, PhD

Dear Reviewers:

On behalf of the Department of Medicine and Section of Hospital Medicine at the University of Chicago, I am delighted to be able to provide this letter expressing our enthusiastic support for Dr. Ishanu Chattopadhyay and his application for a Department of Defense Discovery Award titled "BioNORAD: Fast Scalable Pandemic Risk Assessment of Influenza A Strains Circulating in Non-human Hosts." Our Department is wholly supportive of Dr. Chattopadhyay and his outstanding research program.

Dr. Chattopadhyay is an accomplished and productive member of our faculty who currently holds an appointment as an Assistant Professor of Medicine. His well established research program focuses on large-scale data analysis, machine learning, and automated model discovery with the goal of unraveling complex phenomena in biology, medicine, the epidemiology of complex diseases including screening and diagnosis, and clinical decision making. In the current application, Dr. Chattopadhyay seeks to leverage his expertise to pursue innovative work seeking to develop a platform powered by novel pattern discovery and recognition algorithms that would be able to automatically parse out and identify emergent evolutionary strains of Influenza A viruses in the wild to provide global surveillance for potential emerging pandemic threats. This work has clear significance given past examples of Influenza A pandemics and the recent global experience with COVID-19. I am confident that you will Dr. Chattopadhyay is ideally suited to lead the proposed work.

As Chairman of the Department of Medicine, you have my assurance that we will continue to provide Dr. Chattopadhyay with all of the necessary physical resources, including laboratory space and equipment as well as administrative support necessary to accomplish his research aims. Dr. Chattopadhyay directs the Zero Knowledge Discovery (ZeD) laboratory which is housed within the Department of Medicine and has access to a full range of high end computing resources necessary for the work proposed in this application. In addition, Dr. Chattopadhyay will have access to all of the outstanding shared scientific resources and core facilities available to investigators at The University of Chicago. This includes The University of Chicago Research Computing Center which provides additional high-end research computing resources including high-capacity storage and backup.

In summary, Dr. Chattopadhyay has been highly successful and productive throughout his career as a researcher. I am continually impressed by the quality and innovative nature of his work and am fully supportive of the current proposal. I hope you are as impressed as I am by the rigor and originality of his research, the significance of the questions he wants to ask, and the talent and ability he has already demonstrated in his career to date.

Sincerely,

Everett E. Vokes, M.D.

John E. Ultmann Distinguished Service Professor

Chairman, Department of Medicine

Physician in Chief, University of Chicago Medicine & Biological Sciences