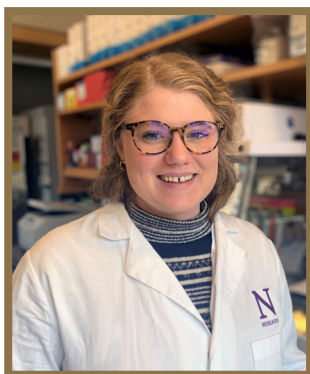




The 2023 Science Olympiad Alumni Research (SOAR) Grant Winner for Medical Research Impacting Human Health



Dr. Kathryn Jackson-Jones
Northwestern University
HIV Virology

Dr. Kathryn Jackson-Jones is a postdoctoral research scholar at Northwestern University's Feinberg School of Medicine. Originally hailing from the UK, she is pursuing a pathway that allows her to fulfill a personal mission of understanding human health and disease to best serve those affected.

Human Immunodeficiency Virus (HIV) remains a global health crisis with approximately 1.5 million new diagnoses and 650,000 HIV-related deaths annually. While current antiretroviral drugs are safe and effective at controlling disease and preventing transmission, a cure is still elusive.

Kathryn's research digs into protein interaction between the virus and the host as an unexplored axis of immune control at the cellular level. "All pathogenic viruses, including HIV, encode proteins to manipulate and evade the host cell antiviral response. While several such mechanisms have been described for HIV, these are insufficient to explain the broad immune dysfunction induced by the virus," she wrote. "This (research) could be a missing link towards better understanding how HIV is able to evade immune detection and viral clearance in people living with HIV."

Kathryn's advisor Dr. Judd Hultquist, Assistant Professor, Division of Infectious Diseases at Northwestern's Feinberg School of Medicine adds, "This work will provide critical insights into the role of host-viral interactions in HIV infection and the innate immune response."

The \$25,000 SOAR Grant will support Kathryn's laboratory supplies and experiments and will also be used to travel to the Cold Springs Harbor Laboratories Retroviruses Conference in May 2024 to share her findings. For her outstanding work, Kathryn has also received a one-year Mentored Scientist Award (MSA) from the HIV Accessory and Regulatory Complex Center.

Her community outreach includes acting as a Northwestern University Science Olympiad Alumni Club Executive Board Member and developing the Disease Detectives event for the 2024 Northwestern University Science Olympiad Invitational Tournament. Along with her Science Olympiad involvement, Kathryn has engaged youth in hands-on science through the Edinburgh Science Festival, Cancer Research UK and The Genetics Society, and currently serves as a member of the Third Coast Center for AIDS Research in Chicago. She plans to share her research findings with communities affected directly by HIV through journal articles, public seminars and a podcast.

The Science Olympiad USA Foundation is a nonprofit organization founded in 2020, dedicated to carrying out the charitable, educational and scientific purposes of Science Olympiad, Inc., a nonprofit formed in 1984. In this inaugural funding year, two \$25,000 SOAR Grants were awarded, one in each category of medical research impacting human health and energy/climate research impacting a safer, greener world.

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