PRESS RELEASE

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The Wistar Institute Announces the Recruitment of Jianliang Xu, Ph.D., to the HIV Cure and Viral Diseases Center

Xu specializes in antibody research & engineers nanobodies—tiny, effective tools against HIV & emerging pandemics

PHILADELPHIA — (Jan. 13, 2026) —The Wistar Institute, an international biomedical research leader in cancer, immunology, and infectious disease, is pleased to announce the recruitment of **Jianliang Xu, Ph.D.**, to Wistar's HIV Cure and Viral Diseases Center. Xu is a molecular biologist, trained in fundamental immunology, specializing in antibody and nanobody engineering. Xu engineers antibodies and nanobodies (smaller versions of antibodies) through binding and fusing them to create chimeric molecules—hybrids made from two sources—or nanobody cocktails that are new, enhanced, cutting-edge tools which can be rapidly deployed drug development or diagnostic technologies for HIV and emerging pathogens.

As a Ph.D. student, Xu explored genes and their function in cancer. After reading a paper on activation-induced deaminase (AID) in cancer, he became interested in how this enzyme, essential for building antibody diversity, could be linked to cancer. Xu would reach out to the discoverer of the molecule — Kyoto University professor Dr. Tasuku Honjo (2018 Nobel Laureate in Physiology or Medicine), switch fields from cancer to antibodies, and join Dr. Honjo's lab as a postdoctoral fellow.

"In Japan I was working on very basic science, doing fundamental, deep dives into antibodies—pursuing how the immune system produces such a diversity of antibodies that can recognize pathogens, and how our body can create stronger binding, more specific antibodies over time," said Xu. "Understanding these core abilities laid the foundation for my interest in the translational side of antibody research and my focus on a branch of antibody study, which is nanobody development. I am interested in creating nanobody countermeasures against HIV, SARS-CoV-2, respiratory syncytial virus (RSV), and dangerous viruses like Hantavirus and Henipavirus."

Xu's research at Wistar will uncover possibilities for HIV and infectious disease, including translating antibodies into future immunotherapies.

"I came to Wistar for the strong HIV research and innovative collaborative team science approach," he said. "I develop nanobodies to neutralize HIV, but I can see this expanding to eradicating infected cells that are "sleeping" latently in HIV viral reservoirs. At Wistar they engineer CAR-T cells and natural killer (NK) cells to have the same advantages of recognizing and killing HIV-infected cells and these are strategies that combine with my expertise."

"Jianliang's deep expertise and ability to engineer custom-designed antibodies with therapeutic potential are indispensable to our goal of developing novel antiviral strategies, including an HIV cure," said **Luis J. Montaner, D.V.M., D.Phil.**, Wistar executive vice president, director of the HIV Cure and Viral Diseases Center, and Herbert Kean, M.D. Family Professor. "Xu's program will not only drive progress in uncovering the hidden HIV reservoir by designing unique tools to find and eliminate infected cells, but will also deliver a powerful platform that can be rapidly directed against emerging viral threats."

Xu obtained a Ph.D. in Biochemistry and Molecular Biology from Nanjing University in China. He carried out postdoctoral training at Kyoto University in Japan and the National Institutes of Health in Bethesda, Maryland. Prior to Wistar, Dr. Xu was assistant professor of Biology at Georgia State University.