NIAID International Research Activities FY 2020 **Europe Region**

The National Institute of Allergy and Infectious Diseases (NIAID), part of the U.S. National Institutes of Health (NIH), conducts and supports basic and clinical research to better understand, treat, and prevent infectious, immunologic, and allergic diseases. For more than 60 years, NIAID research has led to new therapies, vaccines, diagnostics, and preventive strategies that have improved the health of millions of people in the United States and around the world.

Figure 1. Countries With NIAID-Funded Research



Research Priorities

The greatest concerns in this region are antimicrobial resistance, tuberculosis (TB), vector-borne illnesses, tickborne infections, and newly emerging health risks such as chikungunya virus and dengue fever. New cases of HIV infection present a growing problem in Eastern Europe. This region also presents opportunities for research on immunological conditions such as peanut allergy. NIAID priorities also include research on HIV/AIDS, SARS-CoV-2, mosquito-borne illnesses, influenza, and basic immunology.

Regional Projects

NIAID supported 566 research projects in 28 European countries during fiscal year 2020 (Figure 1). Total NIAID international health research funding in Europe was \$136 million.



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES National Institutes of Health National Institute of Allergy and Infectious Diseases

Countries With NIAID-Funded Research

Austria	Greece	Portugal
Belgium	Hungary	Romania
Bulgaria	Ireland	Slovenia
Croatia	Italy	Spain
Czech Rep.	Lithuania	Sweden
Denmark	Luxembourg	Switzerland
Estonia	Moldova	Turkey
Finland	Netherlands	United Kingdom
France	Norway	
Germany	Poland	

Selected Special Events

NIH Visitors

Swedish Research Council, Sweden

Multilateral Engagement

• On February 6, 2020, the World Health Organization (WHO) designated NIAID as a WHO Collaborating Center for Emerging Infectious Disease Response Research and Preparedness.

Selected NIAID Regional Programs

Launched in 2013, the Antibacterial Resistance Leadership Group (ARLG) aims to prioritize, design, and execute clinical research that will affect the prevention, diagnosis, and treatment of infections caused by antibiotic-resistant bacteria.

The Centers of Excellence for Influenza Research and Surveillance (CEIRS) expand the NIAID animal influenza surveillance program in the United States and overseas to support several high-priority research areas, including influenza viruses with pandemic potential.

The Centers for Research in Emerging Infectious Diseases (CREID) network, established in 2020, is a coordinated group of emerging infectious disease research centers located around the world. Multidisciplinary teams of investigators will conduct pathogen/host surveillance, study pathogen transmission, examine pathogenesis and immunologic responses in the host, and develop reagents and diagnostic assays for improved detection for important emerging pathogens and their vectors.

HIV/AIDS Clinical Trials Networks study critical questions related to HIV and AIDS through the AIDS Clinical Trials Group (ACTG), HIV Prevention Trials Network (HPTN), and HIV Vaccine Trials Network (HVTN).

The Immune Tolerance Network (ITN) is an international consortium cosponsored by NIAID that is dedicated to the clinical evaluation of new toleranceinducing therapies for autoimmune diseases, asthma and allergic diseases, and transplant rejection.

The International Centers of Excellence for Malaria Research (ICEMR) are a network of institutions conducting research to enhance malaria prevention and control in endemic regions of Africa, Asia, the Pacific Islands, and Latin America.

The NIAID TB Portals Program is a multinational collaboration for TB data sharing and analysis to advance TB research. It includes linked socioeconomic/ geographic, clinical, laboratory, radiological, and genomic data from more than 4,500 international TB patient cases.

Through the U.S.-Turkey Collaboration, NIAID has collaborated with Turkish medical universities, including Hacettepe, Ankara, Marmara, and Istanbul, to identify and characterize novel diseases of the immune system. More than 100 Turkish people with unknown immune disorders have undergone whole exome sequencing. The sequencing has led to the identification of known and novel mutations.

The World Reference Center for Emerging Viruses and Arboviruses (WRCEVA) program maintains the Emerging Viruses and Arboviruses Reference Collection and provides reagents and support for investigations of virus outbreaks throughout the world. This international program identifies and characterizes numerous arboviruses and other suspected emerging viruses spread by vectors and investigates the epidemiology of the diseases these viruses cause.

NIAID Office of Global Research (OGR)

OGR facilitates and coordinates NIAID's international activities and collaborative research programs.





Selected NIAID-Supported Science Advances

- An NIAID-sponsored clinical trial, with sites in the United States and United Kingdom, began testing an experimental treatment called autologous hematopoietic stem cell transplantation (AHSCT) against the best available therapies for severe forms of relapsing multiple sclerosis (MS). AHSCT involves removing immune cells that attack the central nervous system and then infusing the person's own blood-forming stem cells back into the individual to repopulate the immune system, allowing the immune system to reset itself. Participants are randomly assigned to receive either AHSCT or one of several highefficacy biologic drugs and then followed for six years. The main outcome is how much time elapses between a participant's assignment to a treatment strategy and MS relapse or death from any cause, if either of these occur, during the first three years of the follow-up period.
- In a collaborative research study, investigators tested a vaccine candidate for Crimean-Congo hemorrhagic fever virus in six cynomolgus macaques. After three inoculations, followed by electroporation at 3-week intervals, researchers found that the candidate vaccine generated protective antibodies against the virus. The vaccine was developed by collaborators at the Karolinska Institute in Sweden with colleagues from the Public Health Agency of Sweden, the Swedish National Veterinary Institute, the Justus Liebig University in Germany, and the NIAID Rocky Mountain Laboratories in Montana.

OGR works closely with other NIH Institutes and Centers, offices and agencies of the U.S. Department of Health and Human Services, and numerous foreign government agencies.

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April 2023 www.niaid.nih.gov