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## NIH NEWS RELEASE

National Human Genome Research Institute

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## NIH and Wellcome Trust Announce Partnership To Support Population-based Genome Studies in Africa

*Effort Uses Gene-Screening and Clinical Tools, Builds Research Capacity on Continent*

LONDON, June 22, 2010 – The National Institutes of Health, an agency of the U.S. Department of Health and Human Services, and the Wellcome Trust, a global charity based in London, today announced a partnership to support population-based genetic studies in Africa of common, non-communicable disorders such as heart disease and cancer, as well as communicable diseases such as malaria. The studies, to be conducted by African researchers, will utilize genetic, clinical and epidemiologic screening tools that identify hereditary and non-hereditary components that contribute to the risk of illnesses.

Called the Human Heredity and Health in Africa project, or H<sup>3</sup>Africa, the effort will receive \$5 million a year from the National Institutes of Health for five years starting in the 2011 fiscal year, which begins Oct. 1. The National Institutes of Health also provided \$750,000 in the current fiscal year to begin organizing the project. The Wellcome Trust will contribute at least \$12 million (£8 million) over the next five years to H<sup>3</sup>Africa, as well as administrative support, advanced training and scientific consultation. In addition, the African Society for Human Genetics will provide in-kind support, particularly organizing researchers in Africa.

“Most global health research understandably focuses on difficult infectious diseases such as AIDS, tuberculosis and malaria,” said Francis S. Collins, M.D., Ph.D., director of the National Institutes of Health. “But studies show the developing world increasingly suffers the same common chronic

diseases as the West. We must take advantage of new research approaches, such as population studies employing genetic and environmental analyses, to understand both communicable and non-communicable disorders in these important parts of the world. What we learn in Africa about genetic variation and disease will have impacts across the globe.”

Researchers selected for H<sup>3</sup>Africa funding will establish or enhance local research facilities in their home country and use genome-wide scanning and sequencing technologies to identify genetic changes that contribute to the disorder selected for study. Previous genetic research suggests that populations in Africa have greater genetic diversity than populations in Europe and Asia. Genetic variation has been shown to affect how the body responds to environmental exposures and influence the risk of an illness.

“We expect H<sup>3</sup>Africa will initiate major studies in both communicable and non-communicable diseases,” said Sir Mark Walport, director of the Wellcome Trust. “Though we don’t often think of it, genes have important influences on the way an individual responds to an infection, either affecting how severely a person becomes ill or sometimes changing the way medications work to fight the infection. And we’ve known for years that common diseases like diabetes and hypertension run in families, clearly showing a genetic component.”

Because of the greater genetic variation in African populations, compared to European or Asian populations, the project may help researchers identify rare genetic variations that may well affect patients in all parts of the world. Moreover, as new genetic factors contributing to diseases are identified, researchers may be able to use them to develop new ways to diagnose disease as well as open new pathways to treatments.

“H<sup>3</sup>Africa will be fundamentally different than previous investments in medical research in Africa,” said Charles N. Rotimi, Ph.D., M.P.H., director of the Center for Research on Genomics and Global Health at the National Human Genome Research Institute, an arm of the National Institutes of Health. “In the past, many research projects simply took samples from Africa and conducted the studies back in Western labs. H<sup>3</sup>Africa will build the capacity for African researchers to study African populations to solve African problems and will create strong collaborations between African researchers and those in Europe, the United States, and other parts of the world.”

Dr. Rotimi, born in Nigeria, is also president of the African Society for Human Genetics, which helped organize the two working groups that will help guide the initiative. They are: the Communicable Disease Working Group, led by Prof. Sekou F. Traore from the University of Mali’s Malaria Research and Training Center, in Bamako, Mali, and the Non-communicable Disease Working Group, led by Prof. Bongani M. Mayosi, DPhil, chief of the Department of Medicine at the University of Cape Town, South Africa.

Working group members represent medical research centers in many African countries including Cameroon, Ghana, Kenya, Mali, Nigeria, South Africa, Sudan, Tanzania, and Tunisia. Organizing meetings are planned for August at Oxford University in the United Kingdom and in the fall in Cape Town, South Africa. The groups must work through numerous challenging issues, including recommending which African populations to study, deciding on which diseases to study, establishing research facilities, and selecting appropriate technologies.

Administrative details and funding mechanisms are still being worked out, though the National Institutes of Health and Wellcome Trust will employ their standard procedures for making awards. The National Human Genome Research Institute will manage H<sup>3</sup>Africa on behalf of the National Institutes of Health Common Fund.

The National Institutes of Health and Wellcome Trust will hold a press conference at 11 a.m., British Summer Time; 6 a.m. Eastern Daylight Savings Time, Tuesday, June 22, 2010, at Wellcome Trust, 215 Euston Rd, Room 303, London NW1 2BE. Reporters may participate in the press conference by dialing in to the following teleconference number: International Toll Phone Number: +44 (0) 20 3003 2666, Passcode: "Human heredity and health". A live webcast of the press conference can be viewed at <http://www.genome.gov/H3A-Webcast/>, which will later be available on-demand. Additional information can be found at <http://www.genome.gov/27539880/>.

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The National Institutes of Health (NIH)- "The Nation's Medical Research Agency" - includes 27 institutes and centers, and is a component of the U.S. Department of Health and Human Services. It is the primary federal agency for conducting and supporting basic, clinical and translational medical research, and it investigates the causes, treatments and cures for both common and rare diseases. For more, visit [www.nih.gov](http://www.nih.gov).

NHGRI is one of the 27 institutes and centers at the NIH. The NHGRI Division of Intramural Research, of which the Center for Research on Genomics and Global Health is a part, develops and implements technology to understand, diagnose and treat genomic and genetic diseases. Additional information about NHGRI can be found at its website, [www.genome.gov](http://www.genome.gov).

The NIH Common Fund encourages collaboration and supports a series of exceptionally high impact, trans-NIH programs. These new programs are supported by the Common Fund, and managed by the NIH Office of the Director in partnership with the various NIH Institutes, Centers and Offices. Additional information about the NIH Common Fund can be found at <http://commonfund.nih.gov>.

[The Wellcome Trust](#) is a global charity dedicated to achieving extraordinary improvements in human and animal health. It supports the brightest minds in biomedical research and the medical humanities. The Trust's breadth of support includes public engagement, education and the application of research to improve health. It is independent of both political and commercial interests.