DNA of 200 NYC Students Reveals Microcosm of the World

National Geographic's Genographic Project finds 130 distinct maternal lineages among participants in study led by The City College of New York

NEW YORK (April 23, 2014)—The 200 college students who provided DNA samples in February 2014 for the New York City Student Ancestry Project led by The City College of New York today learned the results of an analysis of their genetic profile at an event held at the American Museum of Natural History (AMNH). The students, from eight institutions in the New York metropolitan area, had their samples analyzed by National Geographic's Geographic Project.

Key project findings include:

- The 200 student participants uncovered a vast diversity of maternal and paternal haplogroups — groups of people with similar genetic traits — from throughout the world.
- The students' DNA represented more than 130 distinct maternal lineages, from nearly every major world haplogroup.
- Of the 71 male participants, 59 had distinct male lineages from five different continents.
- Many participants had genetic ties to populations from throughout the world, suggesting that their parents and grandparents were both of different backgrounds and, in some cases, from distant places.
- The students' genetic composition showed the true melting pot of diversity that is New York City.

In addition to The City College, students from Columbia University, Stony Brook University, Queens College, Ramapo College, New York University, Fordham University and the Graduate Center / CUNY participated in the project.

Spencer Wells, a National Geographic Explorer-in-Residence and director of the Genographic Project, and Mike Hickerson, assistant professor of biology at The City College of New York/Graduate Center-CUNY, presented the results to the student participants.

"The New York City Student Ancestry Project combines classroom learning with citizen science," said Wells. "The more people who participate, the more we will learn about new or rare genetic lineages and their present-day distributions. We also hope to increase representation from groups that may not be included among the current participants. Ultimately, we're trying to tell the human story, and that has a multitude of fascinating chapters."

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"The goal of the New York City Student Ancestry Project is to directly involve students with their own DNA to learn how human history, ancestry and evolution can be better understood through genetics," said Hickerson. "With the growth of personal genomics and public databases, these sorts of public programs are critical in light of the potential for misunderstanding and misuse of genetic information."

After the presentation, a panel of prominent population geneticists discussed the significance of personal genomics data and genomics testing in general.

The Student Ancestry Project is linked to Hickerson's National Science Foundation-supported research to develop computational models that use DNA evidence to reconstruct how communities of species have responded to climate change. His aim is to use thousands of genes from many species at once to test scenarios of how members of ecological communities can synchronously or idiosyncratically expand, contract, move and go extinct as climate change modifies the habitat.

The event is part of AMNH's ongoing interest in public education about the impact of the relatively new science of genome mapping. Under its Sackler Institute for Comparative Genomics, the museum supports the work of about 75 researchers, including Dr. Rob DeSalle, with projects ranging from conservation genetics to the diversity of malaria parasites in non-human hosts.

National Geographic's Genographic Project is an ambitious attempt to help answer fundamental questions about where we originated and how we came to populate the Earth. Using genetics as a tool to address anthropological questions on a global scale, the goal is to capture an invaluable genetic snapshot of humanity. So far more than 660,000 people from 130 countries have participated in the project by purchasing a Geno 2.0 DNA Ancestry Kit.

Interviews Available

Mike Hickerson, assistant professor of biology, The City College of New York / Graduate Center – CUNY

Spencer Wells, Genographic Project director, National Geographic Society Rob DeSalle, curator, Division of Invertebrate Zoology, American Museum of Natural History

Students and panelists at the event, upon request

Media Assets

Images, results maps and video are available at:

http://press.nationalgeographic.com/downloads/geno/nyc_student_swab_event username: press / password: press

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About The City College of New York

Since 1847, The City College of New York has provided low-cost, high-quality education for New Yorkers in a wide variety of disciplines. More than 16,000 students pursue undergraduate and graduate degrees. For additional information, visit www.ccny.cuny.edu.

About the Genographic Project

The Genographic Project is National Geographic's multiyear global initiative that is gathering and analyzing the world's largest collection of anthropological DNA samples in the hope it will capture an invaluable genetic snapshot of humanity. Members of the public can take part in this real-time research initiative with the Geno 2.0 Ancestry Kit. www.genographic.com

About the American Museum of Natural History

The American Museum of Natural History, founded in 1869, is one of the world's preeminent scientific, educational, and cultural institutions. The Museum encompasses 45 permanent exhibition halls, including the Rose Center for Earth and Space and the Hayden Planetarium, as well as galleries for temporary exhibitions. Visit amnh.org for more information.

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