

MEDIA RELEASE issued by Massey University, on behalf of National Geographic and the Allan Wilson Centre

Monday 25 August 2014

National Geographic's Genographic Project sheds light on the ancient origins of New Zealanders

National Geographic's Genographic Project is a multi-year global research initiative that uses DNA to map the history of human migration. Six months ago 100 Wellington volunteers contributed DNA samples to the Genographic Project to help answer fundamental questions about how humans came to populate the Earth, and as part of a nation-wide study to identify the ancestral origins of New Zealanders.

On Wednesday 27 August, at 5.30pm, Genographic Project Principal Investigator in Oceania, and Allan Wilson Centre Principal Investigator, Professor Lisa Matisoo-Smith, will present the results of the Geno 2.0 DNA analysis at Government House.

Director of the Genographic Project and National Geographic Explorer-in-Residence, Dr Spencer Wells, and members of the Genographic team, visited New Zealand in March to collaborate with Professor Matisoo-Smith and the Allan Wilson Centre to collect DNA samples from the 100 volunteers. The samples have been sequenced and analysed using cutting edge technology that looks at nearly 150,000 Ancestry Informative Markers (AIMs) across the human genome.

"We are excited to reveal the results to the Wellingtonians and to share the results of the Geno 2.0 Study," said Dr Wells. "The Genographic Project provides a great citizen science opportunity — and the more people who participate, the more our scientific knowledge will grow."

The results:

- Among those who participated in the study were the Governor-General, Lieutenant General The Right Honourable Sir Jerry Mateparae and the former Governor-General, Sir Anand Satyanand, both of whom have agreed to have their results discussed on the night.
- Nearly all European maternal lineages were represented in the Wellington sample, with Northern European lineages accounting for more than 50% and Mediterranean lineages making up approximately 30%. In contrast, no African maternal or paternal lineages, and only three Asian lineages, were found. Five individuals carried one of two Oceanic maternal lineages, and one Oceanic paternal lineage was found in the Wellington sample.
- Ninety-four percent of paternal lineages were West Eurasian or European, and the remaining 4% were East Asian and 2% Oceanic.
- For an individual's personal ancestry breakdown, Northern European was commonly the highest percentage, but some Oceanic ancestry (>1%) was found in 10 participants. Two participants had predominantly South Asian ancestry, and one participant was more than 10% Native American.
- A vast range of hominin-cousin DNA (Neanderthal and Denisovan) was detected among the participants, ranging from almost 0% to over 5% in some. Most people of European ancestry average 2% Neanderthal and/or Denisovan DNA in their genetic makeup

The Wellington study using the Geno 2.0 analysis is a sub-sample of a nation-wide study of the genetic ancestry of 2000 New Zealanders that is currently underway, and should be finished in mid to late 2015.

Says Professor Matisoo-Smith, “The question about the New Zealand identity has no single answer. There are as many stories as people behind the reasons that we and our ancestors made the longest journey from Africa to Aotearoa/New Zealand, the final major landmass on Earth to be inhabited by humans.”

For further information contact Professor Lisa Matisoo-Smith, lisa.matisoo-smith@otago.ac.nz 021 279 6827 or Manager of the Allan Wilson Centre, Wendy Newport-Smith, w.newport-smith@massey.ac.nz, 021 423 757.

MORE ABOUT THE ALLAN WILSON CENTRE

www.allanwilsoncentre.ac.nz

MORE ABOUT THE GENOGRAPHIC PROJECT

www.genographic.com

The Genographic Project is a multi-year 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.

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