MedicalXpress

New Genetic Research Indicates Jewish Priesthood Has Multiple Lineages

September 17 2009

(PhysOrg.com) -- UA geneticist Michael Hammer and his colleagues report that their research shows a number of ancestors fueled the ancient Jewish priesthood that dates back more than three millenia.Their work is currently published online in Human Genetics.

Recent research on the Cohen Y chromosome indicates the Jewish priesthood, the Cohanim, was established by several unrelated male lines rather than a single male lineage dating to ancient Hebrew times.

The new research builds on a decade-old study of the Jewish priesthood that traced its patrilineal dynasty and seemed to substantiate the biblical story that Aaron, the first high priest (and brother of Moses), was one of a number of common male ancestors in the Cohanim lineage who lived some 3,200 years ago in the Near East.

The current study was conducted by Michael F. Hammer, a population geneticist in the Arizona Research Laboratory's Division of Biotechnology at the University of Arizona. Hammer's collaborators in the study include Karl Skorecki of the Technion-Israel Institute of Technology and Rambum Medical Center in Haifa and colleagues and collaborating scientists from Tel Aviv University and the Russian Academy of Sciences.

The July 2009 issue of Human Genetics has published the Hammer team's newest findings in their article entitled "Extended Y chromosome haplotypes resolve multiple and unique lineages of the Jewish

priesthood."

Hammer and Skorecki were part of the first research group 10 years ago that found the DNA marker signature of the Cohanim, termed the Cohen Modal Haplotype. Today, Hammer and his colleagues are able to use a much larger battery of DNA markers and consequently able to develop a more fully resolved Cohen Modal Haplotype called the extended Cohen Modal Haplotype. The smaller number of markers used in the original Cohanim studies did not allow for full resolution of the history of the Jewish priesthood.

"These findings should motivate renewed interest in historical reconstructions of the Jewish priesthood as well as additional high resolution DNA marker analyses of other populations and 'lost tribes' claiming ancient Hebrew ancestry," Hammer said.

Using the new data, Hammer and his team were able to pinpoint the geographic distribution of a genetically more resolved Cohen Modal Haplotype and tease apart a multiplicity of male lines that founded the priesthood in ancient Hebrew times. The more fully resolved Cohen Modal haplotype (called the extended Cohen Modal Haplotype) accounts for almost 30 percent of Cohanim Y chromosomes from both Ashkenazi and non-Ashkenazi Jewish communities, is virtually absent in non-Jews, and likely traces to a common male ancestor that lived some 3,200 years ago in the Near East.

Additional Y chromosome lineages that are distinct from that defined by the extended Cohen Modal Haplotype, but also shared among Cohanim from different Jewish communities, reveal that the priesthood was established by several unrelated male lines.

More information: Study article:
www.ncbi.nlm.nih.gov/pubmed/19669163

Medical Xpress

Provided by University of Arizona (news : web)

Citation: New Genetic Research Indicates Jewish Priesthood Has Multiple Lineages (2009, September 17) retrieved 16 April 2024 from https://medicalxpress.com/news/2009-09-genetic-jewish-priesthood-multiple-lineages.html

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.