**Archaeogenetics and the origin of Proto-Indo-European language**

Professor Alexey Nikitin from the Department of Biology at GVSU is a co-author on a major study of the genetic ancestry of the people who lived around the Black Sea (the circum-Pontic area) and the Aegean from the Neolithic to Medieval times. The study is presented in three papers published in *Science* on August 26, 2022. Each paper covers a distinct chronological period - the Neolithic, the Chalcolithic (Eneolithic), and the Bronze to the Middle Ages. Overall, the three papers report genome-wide data from 727 ancient individuals. The papers are authored by over 200 scholars from around the world.

The central point of the investigation dealing with the Chalcolithic period of circum-Pontic pre-history is the connection between genetic ancestry and the origin of Proto-Indo-European (PIE) language, the descending branches of which are the primary languages of over 3 billion people on Earth. The article titled “*The genetic history of the Southern Arc: A bridge between West Asia and Europe*”, presents evidence that points to the Anatolian Peninsula (modern Turkey) as the birthplace of PIE language. It was, however, the Early Bronze Age pastoralists of the North Pontic steppe who distributed the descending tongues of PIE to Europe and parts of Asia, including the Hindustan Peninsula. There are concurrent studies, currently in press, that develop this idea further. One of these studies, led by Professor Nikitin, argues that the origin of PIE language is connected with the establishment of the circum-Pontic trade network of metals (copper, bronze, silver and gold), salt, and other goods, during the Chalcolithic period of southeast European pre-history. According to the study, PIE became an amalgam of the languages spoken among the participants of the trade network, that involved a vast territory stretching from the east Balkans in the west to the Caucasus and northeast Anatolia in the south and to the Ural Mountains in the northeast.

The three papers detailing the genetic history of the circum-Pontic and the Aegean can be accessed by following the links below:

Iosif Lazaridis et al, The genetic history of the Southern Arc: a bridge between West Asia and Europe, *Science* (2022). [DOI: 10.1126/science.abm4247](https://dx.doi.org/10.1126/science.abm4247). <https://www.science.org/doi/10.1126/science.abm4247>

 Iosif Lazaridis et al, A genetic probe into the ancient and medieval history of Southern Europe and West Asia, *Science* (2022). [DOI: 10.1126/science.abq0755](https://dx.doi.org/10.1126/science.abq0755). <https://www.science.org/doi/10.1126/science.abq0755>

 Iosif Lazaridis et al, Ancient DNA from Mesopotamia suggests distinct pre-pottery and pottery Neolithic migrations into Anatolia, *Science* (2022). [DOI: 10.1126/science.abq0762](https://dx.doi.org/10.1126/science.abq0762). <https://www.science.org/doi/10.1126/science.abq0762>

The Eneolithic circum-Pontic trade network paper authored by Professor Nikitin and Svetlana Ivanova, one of the world-leading experts on the Eneolithic and Bronze Age archaeology of the circum-Pontic area, will be published in *Archaeolingua* in the Fall of 2022.