

Malaysian Genomics Inks Dual MOAs With USM, Sets To Unveil The Genetic Secrets and Historical Chronicles of Penang Woman

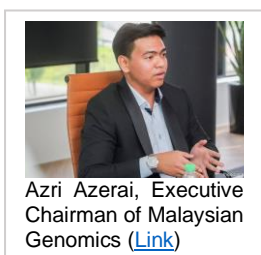
Collaborative Studies to Unravel the Genetics of Penang Woman and Determine the Age of Ancient Skeletons

PETALING JAYA, 13 MARCH 2024 – **Malaysian Genomics Resource Centre Berhad** (“MGRC” or “the Group”), a leading genomics and biopharmaceutical specialist, is pleased to announce two significant research collaboration agreements with **Universiti Sains Malaysia** (“USM”), Malaysia’s premier research university renowned for their commitment to enhancing educational and research excellence.

The first agreement focuses on exploring the genetics of Penang Woman through an in-depth study aiming to extract and analyse genetic materials from Penang Woman specimens. Under this collaboration, USM will provide the genetic materials and technical assistance for DNA sequencing, while MGRC Therapeutics (“MGRCT”) will undertake the genomic DNA extraction and whole genome sequencing utilising the extracted materials, as well as providing funding support. The collaboration encompasses joint responsibilities including the preparation of a final research report, sharing of knowledge, and co-authoring a peer-reviewed publication based on the research findings.

Parallel to this, a second agreement has been forged to determine the age of an ancient Penang Woman skeleton using the Accelerator Mass Spectrometry (“AMS”) Dating technique, alongside conducting Optically Stimulated Luminescence dating on Guar Kepah pottery. For this project, USM will leverage on their AMS dating expertise, with MGRCT providing funding support. Both parties will engage in data analysis, interpretation, and co-author a manuscript for peer-reviewed publication, contributing significantly to the understanding of human history in the region.

These collaborations are set against the backdrop of limited informative genetic data from ancient Indigenous people of Sunda and Sahul, two prehistoric landmasses that have intrigued scientists and historians alike. The recent discovery of the Penang Woman, unearthed at Guar Kepah, Kepala Batas, Penang in April 2017, presents a unique opportunity to extend the sample coverage and deepen the understanding of the genetic makeup and historical context of the region's ancient inhabitants.



Azri Azerai, Executive Chairman of Malaysian Genomics expressed enthusiasm about the collaborations, stating, "These research collaborations with USM are not just about delving into the past; they represent an exciting convergence of history, science, and technology. By uncovering the genetic and historical narratives of Penang Woman, we're not only contributing to the academic and scientific community but also enhancing the brand awareness and technical prowess of MGRC. This venture into the unknown

underscores our commitment to pushing the boundaries of what's possible in genomics and biopharmaceuticals."



Assoc. Prof. Dr. Edinur Hisham Atan, Principal Investigator for The Genetics of Penang Woman Project ([Link](#))

Assoc. Prof. Dr. Edinur Hisham Atan, Principal Investigator for The Genetics of Penang Woman Project said, “Investigating the human history in Peninsular Malaysia has been limited by the lack of informative genomic data from ancient remains from this region. It becomes more difficult due to extensive genetic admixture in the descendants of ancient indigenous people like Orang Asli Semang and Proto-Malays. Therefore, improved reconstruction of population history in Peninsular Malaysia requires the recovery of ancient nuclear genome sequences, as proposed here for Penang Woman. This complements our previous and existing DNA analyses of modern and ancient human samples in Peninsular Malaysia and Asia Pacific regions.”



Dr. Suresh A/I Narayanan, Principal Investigator for Determining the Age of the Ancient Penang Woman Skeleton using AMS Dating Project ([Link](#))

Dr. Suresh A/I Narayanan, Principal Investigator for Determining the Age of the Ancient Penang Woman Skeleton using AMS Dating Project said, “The USM’s Centre for Global Archaeological Research welcomes the research collaboration agreement with MGRCT in studying the Penang Woman skeleton and earthenware pottery from Gua Kepah archaeological site. The agreement enables researchers from USM and MGRCT to collaborate and explore new scientific approaches in examining archaeological materials, particularly human remains. Additionally, research on the earthenware pottery will provide new scientific understanding and historical narratives on the ancient technology and culture of Guar Kepah community. We hope that this collaboration will continue in the future to promote and encourage scientific research in genetics and archaeology.”

With these groundbreaking research collaborations, MGRC Therapeutics and USM are poised to make substantial contributions to the fields of genetics and archaeology, shedding light on the ancient history of Malaysia and the nation’s people.

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ABOUT MALAYSIAN GENOMICS RESOURCE CENTRE BERHAD

Malaysian Genomics Resource Centre Berhad (“MGRC” or “the Group”) is a leading genomics and biopharmaceutical company based in Southeast Asia. The Group was established in 2004 and listed on the Bursa Malaysia stock exchange in 2010. From pioneering work in genome sequencing, bioinformatics analysis, and genetic screening services, MGRC has expanded into the biopharmaceutical sector with the manufacturing of cell therapies including immunotherapy for various types of cancer.

Utilising its high-throughput sequencing lab, advanced microarray facility, and new state-of-the-art cell processing lab, the Group is committed to improving access to the latest in precision and personalised healthcare solutions to improve the lives of patients.

For more information, visit www.mgrc.com.my.

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