

Five British-Egyptian projects nominated for the Newton Prize

The Newton Prize 2020 committee, chaired by Professor Alice P Gast, President of Imperial College London, comprises distinguished professors including Egypt's Director of Centre for Photonics and Smart Materials at Zewail City of Science and Technology, Professor Salah Obayya.

The nominated joint projects:

1. The Liver Microenvironment (new treatments for liver cancer)

Liver cancer patients represent 23% of total registered cancer cases in Egypt. Researchers in Newcastle University and Minia University are researching ways to halt its progression by utilising 3D modelling and finding biomarkers in the blood.

2. Earliest Egypt (conservation of Egypt's cultural heritage)

Egypt is home to some of the world's most important historical sites as well as a diverse range of cultures central to its identity and future growth. This team of researchers at the University of Edinburgh and Universite Francaise d'Egypte are trying to protect Egypt's heritage and educate a new generation.

3. Virtual Reality of Medieval Culture (building an Egyptian heritage economy)

This project is trying to build a sustainable heritage economy that is future-proof and opens up Egyptian heritage to the world, especially important during the Covid-19 pandemic. This project by Nottingham Trent University and the National Research Institute of Astronomy & Geophysics in Egypt aims to contribute to revitalising the tourism industry in Egypt.

4. Water Desalination (a new water desalination plant driven by clean energy)

This collaborative project between The University of Sheffield and Port Said University in Egypt is developing a system to produce fresh, safe drinking water for rural communities.

5. Substantial Water Management (improving irrigation and agriculture)

Globally, irrigation consumes 70% of total freshwater resources, but this two-year study by the UK Centre for Ecology & Hydrology and the National Research Center in Egypt has shown that using waste and drainage water for irrigation is not only a sustainable use of water but also increases wheat production and farmers' incomes in Egypt.

The Newton Prize is a £1m fund which recognises the excellent research and innovation the Newton Fund has invested in since its launch in 2014. This

year, Egypt participates for the first time. The Newton-Mosharafa programme has provided PhD scholarships, research funding, and capacity building & training for more than 1,800 Egyptian researchers.