

Singaporean scientists conduct world's first remote X-ray scattering experiment

May 26 2009

On 26th May, Nanyang Technological University's School of Biological Science (SBS) will pioneer the world's first remotely controlled Solution X-Ray Scattering (SAXS) experiment. The experiment will be initiated from Singapore at 4.10pm - 6pm in SBS and conducted at the German Electron Synchrotron, Hamburg, Germany.

This event will mark a milestone in how traditional SAXS experiments are conducted by allowing scientists to control and conduct their research without being actually present at the facility where the synchrotron is located.

Due to the massive size and complexity of the synchrotron, there are just 37 in the world today. Therefore the success of this unconventional first experiment will mean saving precious resources on travelling time and costs, scientists can now choose instead to concentrate on perfecting their techniques and use the additional funds for materials and samples that might potentially bring about quicker advancement in the course of their studies.

Knowledge gained from previous SAXS experiments have been credited for the structure determination of the vacuolar ATPase [proton pump](#), which has been proven as a contributing factor in multiple diseases pertinent in our society including osteoporosis, deafness, malaria, encephalitis, [yellow fever](#), HIV-infection and cancer.

In 2008, Associate Professor G. Grüber and Associate Professor J.

Lescar of SBS has collaborated with the Novartis Institute for [Tropical Diseases](#), Singapore to use SAXS in determining the structure of the NS3 protein from the [Dengue virus](#). This revelation promises to give further insight into the development of treatments for future Dengue outbreaks in the region.

Source: Nanyang Technological University ([news](#) : [web](#))

Citation: Singaporean scientists conduct world's first remote X-ray scattering experiment (2009, May 26) retrieved 5 May 2024 from <https://phys.org/news/2009-05-singaporean-scientists-world-remote-x-ray.html>

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