JEOL UK are proud to announce that the Scottish Cryo-EM consortium has chosen the JEOL JEM-Z300FSC CRYO ARM™ 300 as their preferred automated Cryo Transmission Electron Microscope (Cryo-TEM) for the Scottish Centre for Macromolecular Imaging (SCMI).

The SCMI consortium led by the MRC Centre for Virus Research (CVR) at The University of Glasgow, selected JEOL after a thorough evaluation of the competing technologies for cryo-TEM. The JEOL CRYO ARM™ 300 will be supported by a second TEM, the JEOL 200kV JEM-F200 "F2" Cryo-TEM.

Sir Michael Stoker Building

JEM-Z300FSC (CRYO ARM™ 300) Field Emission Cryo-Electron Microscope

Project lead and programme leader in the CVR, Dr David Bhella said:

"The mission of the CVR is to carry out fundamental research on viruses and viral diseases, translating the knowledge gained for the improvement of health and benefit of society. Cryogenic transmission electron microscopy is revolutionising the field of structural biology. The SCMI represents a tremendous opportunity not only for the CVR, but also for Life Scientists throughout Scotland. The new facility will place Glasgow at the centre of vital structural biology research by offering world-class capability. The new technology will help us investigate key processes in cancer biology and infection".

Cryo-EM has gained an enormous momentum in recent years resulting in the award for the Nobel Prize in Chemistry.

Ultra-high resolution structural analysis of viruses and proteins derived from cryo-EM techniques such as Single Particle Analysis (SPA) require high stability hardware and software.

The JEOL CRYO ARM™ 300 is the latest offering in cryo-TEM, able to achieve unprecedented resolution and stability by including: Cold Field Emission Gun; in-column Omega energy filter; Hole-Free Phase Plate; side-entry liquid nitrogen cooling stage and an automated 12 specimen storage and exchange system.

JEM-F200 Field Emission Electron Microscope

The JEM-F200 "F2" is a high throughput TEM and the only 200kV system in its class to offer a Cold Field Emission Gun. The 'F2' employs the latest JEOL innovations in an easy-to-use, extremely stable, high resolution imaging 200kV TEM with STEM. This makes it the ideal partner for any high level cryo-TEM.

JEOL look forward to helping and supporting Dr David Bhella and colleagues in the SCMI consortium in their research activities using the new instruments.