

ELECTRON MICROSCOPY UNIT

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WORK OF THE UNIT

The Electron Microscopy (EM) Unit, UWI, Mona maintained its main focus of research during the 2006/2007 academic year and ensured that researchers, postgraduate students, undergraduate students and other interested persons continued to benefit from the facilities of the Unit. The clients mentioned, obtained results from optical microscopy (OM), macro-photography (MP), or transmission electron microscopy (TEM), as well as gained better understanding of electron microscopy via tours and demonstrations. Table 1 shows some of the services that the EM Unit provided during the year.



Tab. 1: Services provided by the EM Unit during the 2006/2007 academic year

Specimen	Technique	Institution
Amphibian lung	OM	Dept. Life Sciences
Foraminifera (marine micro-organisms with perforated, calcareous shell)	OM	Dept. Geol. & Geography
Fresh water snails	OM	Dept. Life Sciences
Fungi, reared in flasks	MP	Dept. Life Sciences
Human genital tissue	MP, OM	Dept. Basic Med. Sciences
Igneous rocks	OM	Dept. Geol. & Geography
Limestone	OM	Dept. Geol. & Geography
Marine worm	OM	Dept. Life Sciences
Metamorphic rocks	OM	Dept. Geol. & Geography
Pig helminths	OM	Dept. Life Sciences

Pinned insects	OM	Dept. Life Sciences
Pumice rocks	OM	Dept. Geol. & Geography
Thiara snails	OM	Dept. Life Sciences
Rat synovial joints	OM	Dept. Basic Med. Sciences
Rat liver		
(2 different researchers)	OM	Dept. Basic Med. Sciences
Rat heart, aorta	OM	Dept. Basic Med. Sciences
Rocks from Trinidad	OM	Dept. Geol. & Geography
Sand Stone	OM	Dept. Geol. & Geography
Sedimentary Rock Samples	OM	Dept. Geol. & Geography
Snail shells	MP, OM	Dept. Life Sciences
Vertebrate Tissue	OM	Dept. Life Sciences

The EM Unit organized and conducted laboratory sessions in the virology course “BL38A” offered by the Department of Life Sciences. The 25 undergraduate students involved this year were given hands-on training in the negative staining of viruses, which had infected various plant materials. These viral particles were then identified using TEM. Other students in their first year at the Department of Life Sciences were exposed to the operations of the TEM.

The EM Unit contributed a laboratory session (including the marking of assignments) to the postgraduate course “Research Methods (C60M)” offered by the Department of Chemistry. The laboratory dealt with electron diffraction and polarization microscopy. Additionally, the Unit undertook the guidance of one PhD student in the EM module of the research project.

Collaborations continued with researchers abroad, as indicated in Table 2.

Tab. 2 Collaborations of the EM Unit in the academic year 2006/2007

Subject	Collaborator
Ciliates in the water body of tank Bromeliads	Zoologist at the “Institut fur organismische Biologie”, Universitat Salzburg (Austria)

