

Title: Optimization of Sample Processing for Electron Microscopy

Supervisor: Erin Tranfield

IGC Group: Electron Microscopy Facility

E-mail contact: etranfield@igc.gulbenkian.pt

Abstract: Sample processing for Electron Microscopy is a technique that is surrounded by habit and old standard conventions. There are a lot of reports in the literature of different protocols, but it is hard to know which protocol is the best for a given sample when there have never been side by side comparisons of conditions. The purpose of this Masters project will be to compare different methods of sample preservation on the same sample(s) and to evaluate the effectiveness, and overall quality of ultrastructural preservation. There are many different conditions that can be tested and many different models that can be used so the specifics of this project will be discussed between the PI and the student to see what is most interesting for the student. This project would be excellent for a chemistry student interested in learning more about biology or a biology student interested in learning more about the chemistry behind sample preservation and fixation.