Title: Understanding the relationship between kinase inhibition and perturbations in cardiac physiology

The increasing development of potent oncology drugs has dramatically improved patient survival. However, some of these drugs are also damaging to the heart, with patients now developing heart failure as a direct consequence of their oncology treatments.

A number of such agents include kinase inhibitors that are associated with changes in cardiac structure and function. These agents typically inhibit a number of kinases making association between a single kinase and a physiological event challenging. In this graduate role you will be at the forefront of innovative medicines working with experts across global multi-disciplinary teams in the fields of cardiac biology and toxicology, to create, evaluate and utilize novel complex cardiovascular in vitro models to derive mechanistic understanding. Specifically, you will investigate the influence inhibition of selected kinases have on cardiac and mitochondrial function in the major cell types in the heart using stem cell derived models. From this cutting-edge work there is the potential for publication in high-impact journals and to influence the future direction of the cardiovascular safety strategy within AZ.

Graduate experience: We seek candidates with a strong bioscience background preferably with cell culture and molecular biology experience. We are looking for a highly motivated person with an interest in novel breakthrough technologies and a willingness to work in global multi-disciplinary teams.

2-3 placement objectives: 1. Perform cardiac functional assays to understand the impact of selected kinase inhibition on drug induced cardiotoxicity. 2. Generate understanding of how the mitochondria is impacted by these kinase inhibitors.

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