

Project proposal

<i>Project title</i>	<input type="text" value="Development of novel assays for health markers."/>	
<i>First Supervisor</i>	Professor <input type="text" value="Declan Naughton"/>	<input type="text" value="Declan Naughton"/>
<i>Second Supervisor</i>	<input type="text" value="Prof Andrea Petroczi"/>	
<i>School</i>	<input type="text" value="Life Sciences"/>	
<i>Other member of supervisory team (no more than three KU supervisors in total)</i>	<input type="text"/>	
<i>Specific requirements beyond 2:1 degree</i>	<input type="text" value="Preferably a Masters Degree"/>	

Project summary (max 4,000 characters)

Considerable advances in the analytical capabilities of modern hyphenated instruments, such as LC-MS/MS, afford a new horizon in health testing. Our group have used this approach to track health behaviour in a number of studies including analysing hair samples for drug use, doping, toxicology and levels of hormones and vitamins. The aim of this proposal is to harness the latest analytical advances to develop and apply new assays for biomarkers of health, diet and potentially, for disease. The programme will benefit from (i) advances in sample preparation and testing expertise, (ii) advances in software capability afforded by Dynamic Multiple Reaction Monitoring (Dyn-MRM), and (iii) increasingly sensitive LC-MS/MS instrumentation. Using this approach, novel assays will be developed to study aspects of diet, health and drug use which will benefit from the considerable benefits of hair sampling (non-invasive collection, ease of storage and transport, low cost and infection risk).