

Title: Human biomarkers of pain

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Control of chronic pain is still one of the most important unmet medical needs. Of the available treatments there is marked variability in how individuals respond. It is likely that part of this variability is because patients are grouped according to primary diagnosis (eg diabetic neuropathy) but the mechanisms involved in pain maintenance (and hence possibly the response to treatment) may differ between patients.

In this project we wish to take a broad range of techniques in a wide variety of patients to explore the utility of the techniques ("biomarkers") to identify subsets of patients in order to predict therapeutic rationale and response. The techniques used will include pain response to heat, cold and capsaicin (the "hot" ingredient of chillies) with effects sought by symptoms, biochemical effects (microdialysis) and immune function. The project will involve supervised hands-on assessment in patients as well as laboratory techniques.