**Title of Project:** Development of analytical methods for characterising the quality of medicinal herbs.

**(FOR Code/s):** 1104

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**Location of Project:** Campbelltown

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**Project Background**

Herbal quality varies greatly and is influenced by factors such as species type, growth conditions, age of plant, time of harvest and post-harvest treatment. Characterising the quality of a herb is not as straightforward as it seems because natural products have complex composition and decisions have to be made as to which chemical(s) should be measured to infer quality, and hence medicinal efficacy. The National Institute of Complementary Medicine (NICM) at UWS has developed a systematic procedure for selecting the analytes that should be monitored to indicate herbal quality.

This study will select an herb and study the compositional variability of the herb sourced from different suppliers in the market place. The analyte(s) determined will be chosen using the selection criteria mentioned and the quality of the herb from different sources ranked. Analytical method development might be necessary. Pharmacological testing (for example antioxidant, free radical, scavenging and anti-inflammatory activity) will then be carried out to observe if the activity of the herb correlates with the quality ranking of the herb derived from chemical testing. The results from this study may lead to a refinement of the selection criteria developed by NICM.

**Aim of Study:**

To rank the quality of the herb according to its chemical characteristics and to determine if this correlates with its pharmacological ranking

**Methods:**

Chemical characterisation by LC-PDA, LC-MS, GC-MS. Pharmacological testing methods.

**Ethics Application Requirements:**

N/A

**Key References:**


