

Research Hub for Traditional Chinese Herbs: an opportunity for new crops in Tasmania, Australia?

Tasmanian Institute of Agriculture, University of Tasmania, Hobart, Australia Email: Dugald.Close@utas.edu.au
Nanjing University of Chinese Medicine, Nanjing, China Email: qnwyjs@163.com



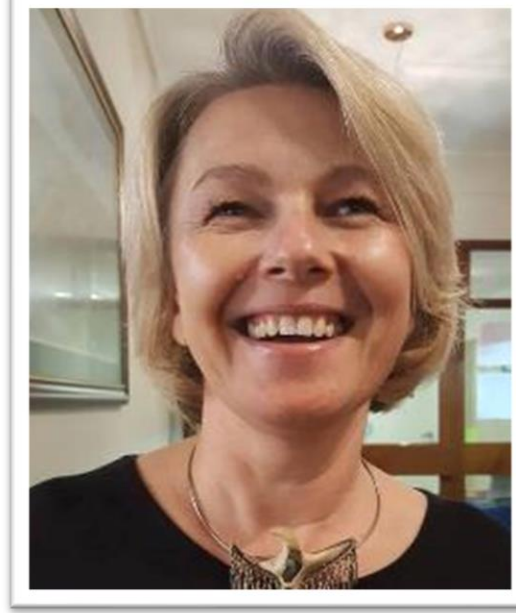
Prof Dugald Close (TIA)



Prof Wu (NUCM)



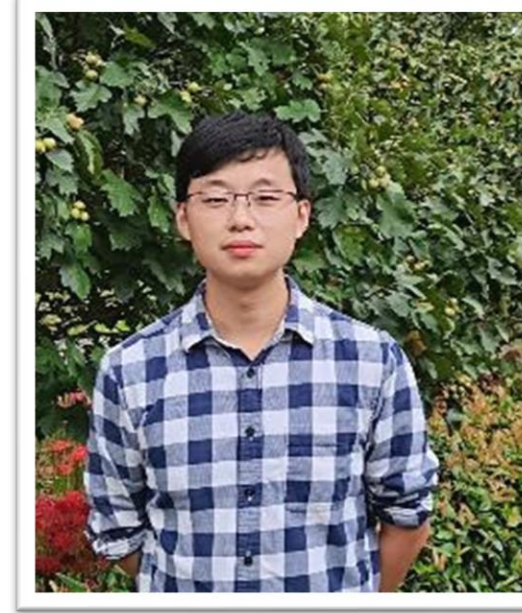
Dr Alieta Eyles (TIA)



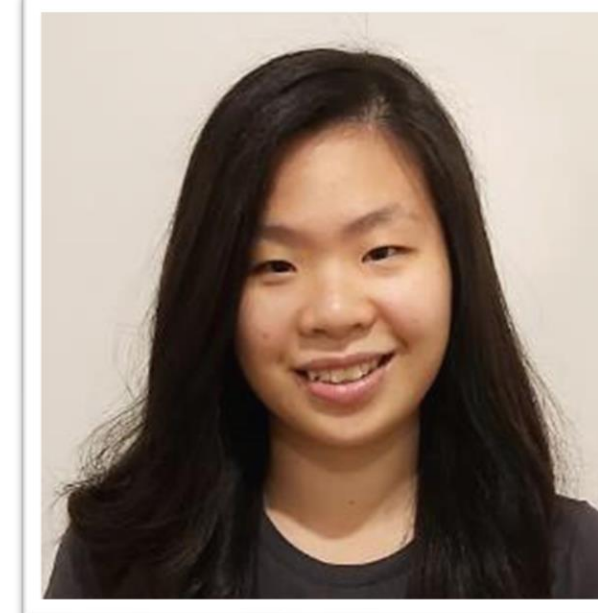
Dorota Buziak (TIA)



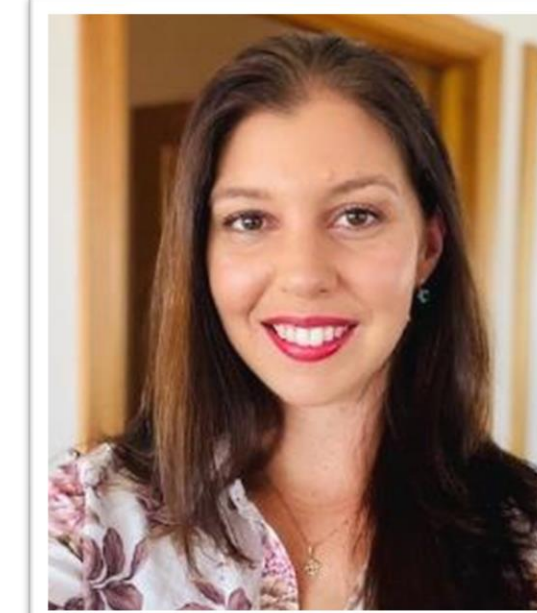
Shilin Dai (NUCM & TIA)



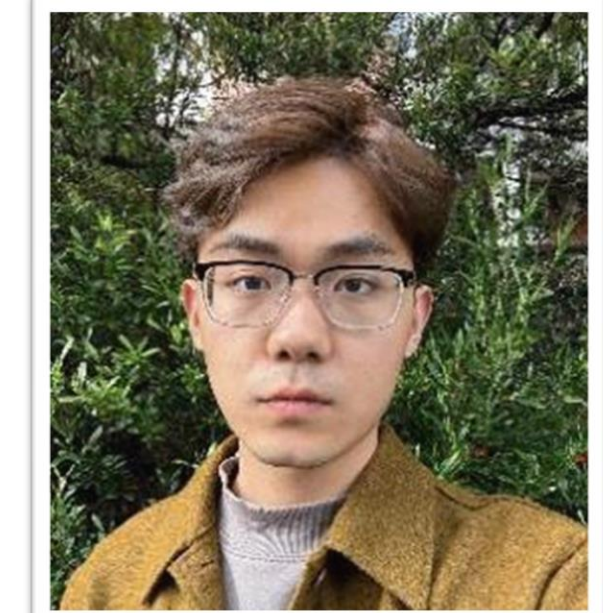
Zheng Jiang (NUCM & TIA)



Hui Law (TIA)



Celia van Sprung (TIA)



Chongyue Liu (South West University and TIA)

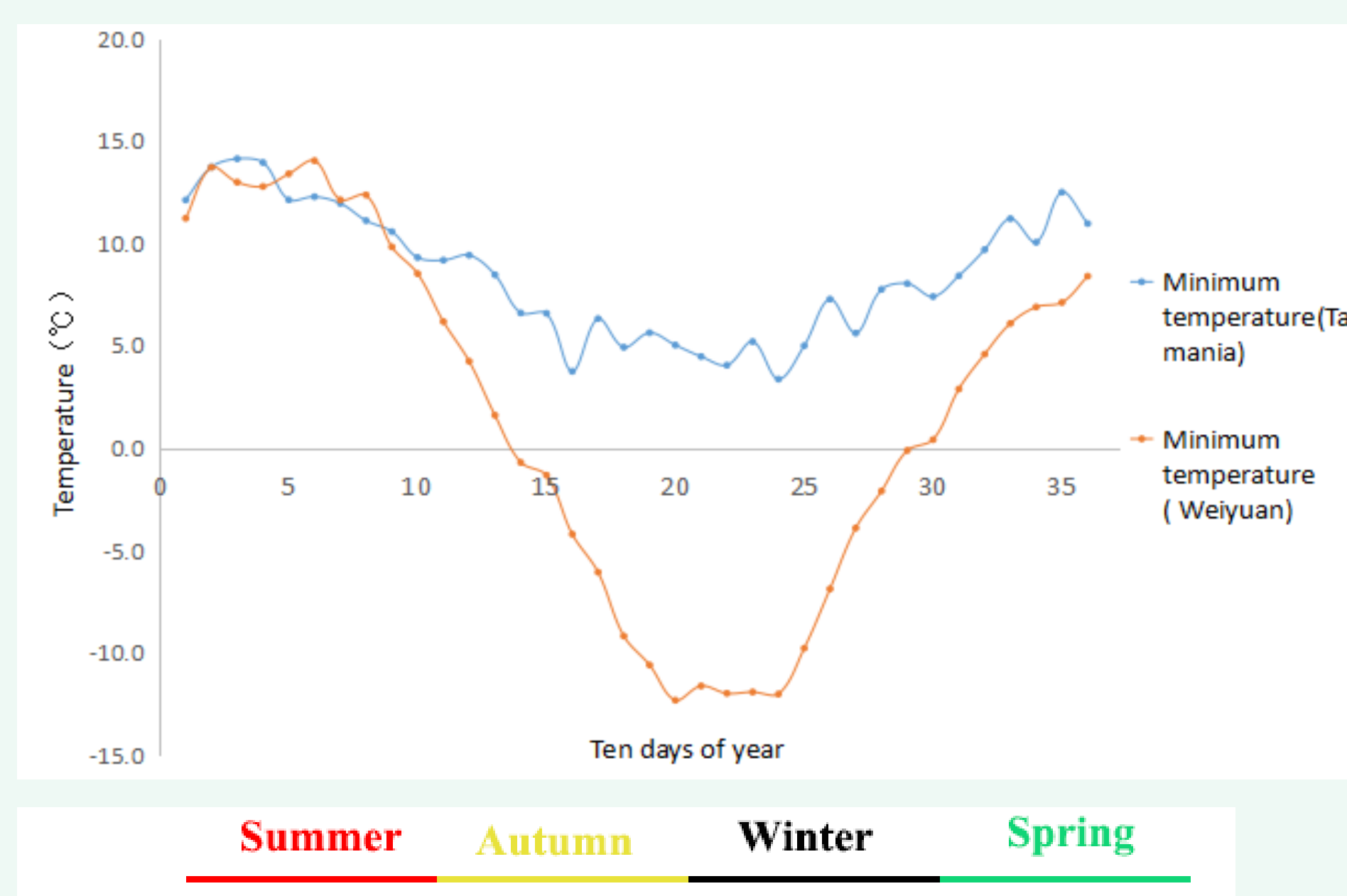


Yufei Wu (TIA)

Research Hub

- As a visionary initiative of AEMG, a research hub for Traditional Chinese Medicinal Herbs was created in partnership with the Tasmanian Institute of Agriculture.
- The primary objectives of the hub are:
 - Can we match the Tasmanian climate and soils with potential crops?
 - Are the crops economically feasible to grow?
 - Does the sensory and chemistry quality meet the required Chinese Pharmacopeia standards?

Climate difference between China and Tasmania



Key differences

- Extremely low winter temperatures in China
- Less precipitation in autumn and winter in China

Selected species



Polygonatum spp.



Astragalus membranaceus



Codonopsis pilosula



Paeonia lactiflora

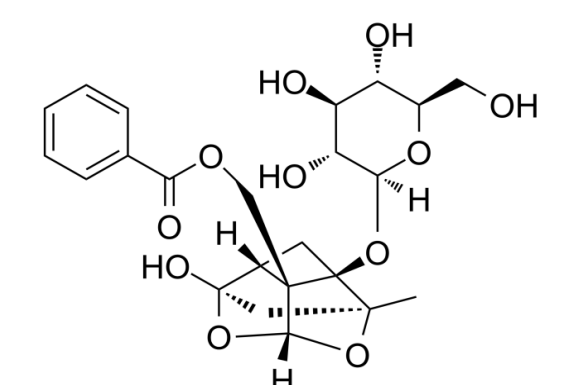
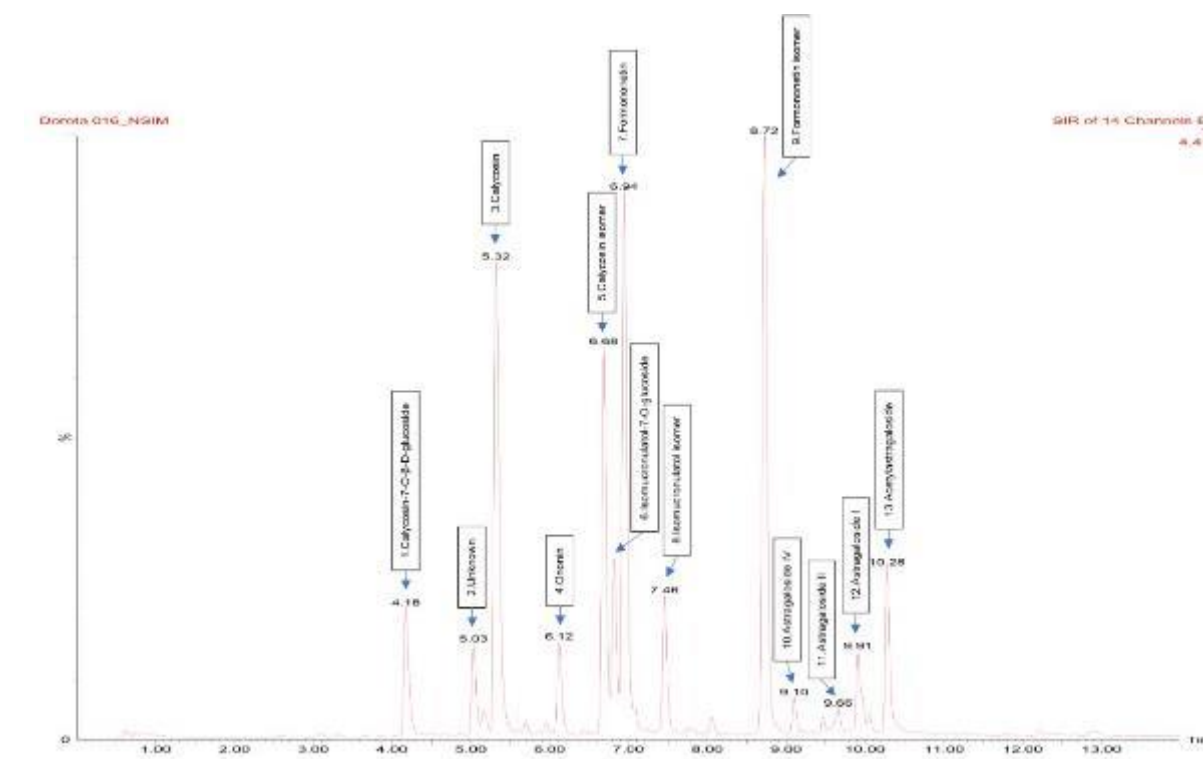


Perilla frutescens



Platycodon grandiflorum

Research aims



Paeoniflorin

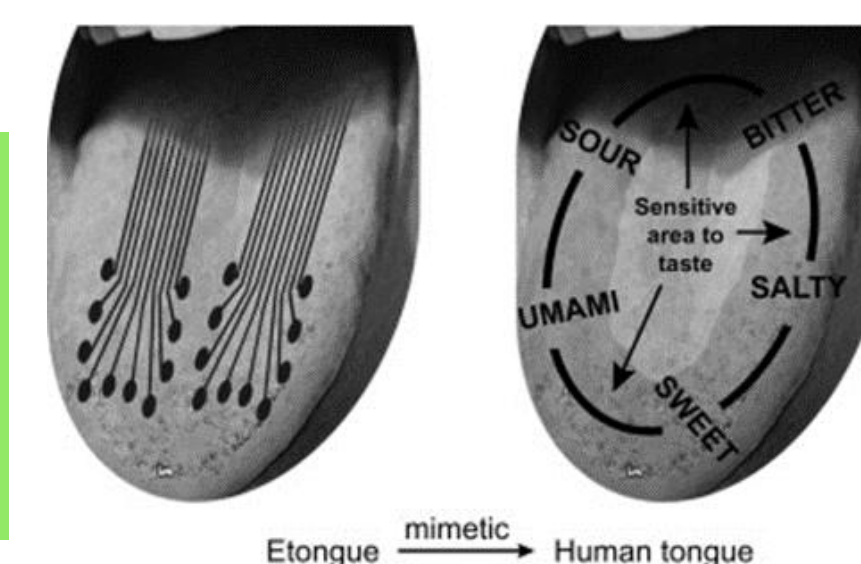
Main quality marker
Active constituent of peony root

Discover chemical quality of fresh and dried material grown in Tasmania

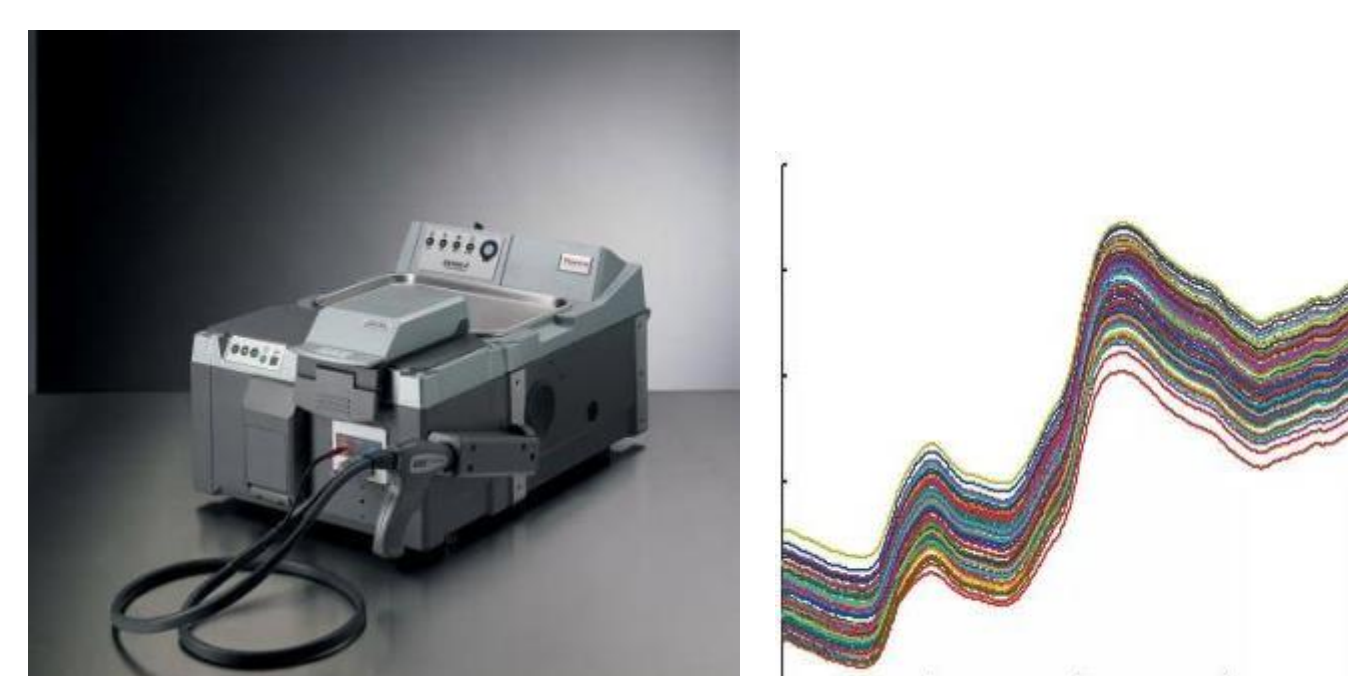


Develop growing systems taking into consideration nutrition, density and management

Examine effect of postharvest processes on chemical and sensory quality



Use electronic tongue technology for sensory properties (sourness, bitterness, sweetness, umami and saltiness)



Evaluate NIRS technology for rapid assessment of quality