Metallo-peptidases cleave amino acids from either the N- and C-termini of peptide hormones to either generate or degrade bioactive peptides. These enzymes play important roles in the body and alterations in their activities can impact on a diverse range of physiological processes in both healthy and diseased states. Our research is focussed on insulin-regulated aminopeptidase (IRAP) particularly in diseased states. Our findings have revealed previously unsuspected roles for IRAP particularly its involvement in memory processing, glucose homeostasis, cardiovascular function and water and electrolyte balance. We have a drug development program targeting IRAP and have identified specific inhibitors that await development into clinically effective drug therapies.

**Research Projects**

1. **Role of IRAP in the pathogenesis of Alzheimer’s Disease**
2. **IRAP contributes to the neuro-inflammatory response in ischemic damage**
3. **Does IRAP regulate glucose and fat metabolism?**

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**Selected significant publications:**


