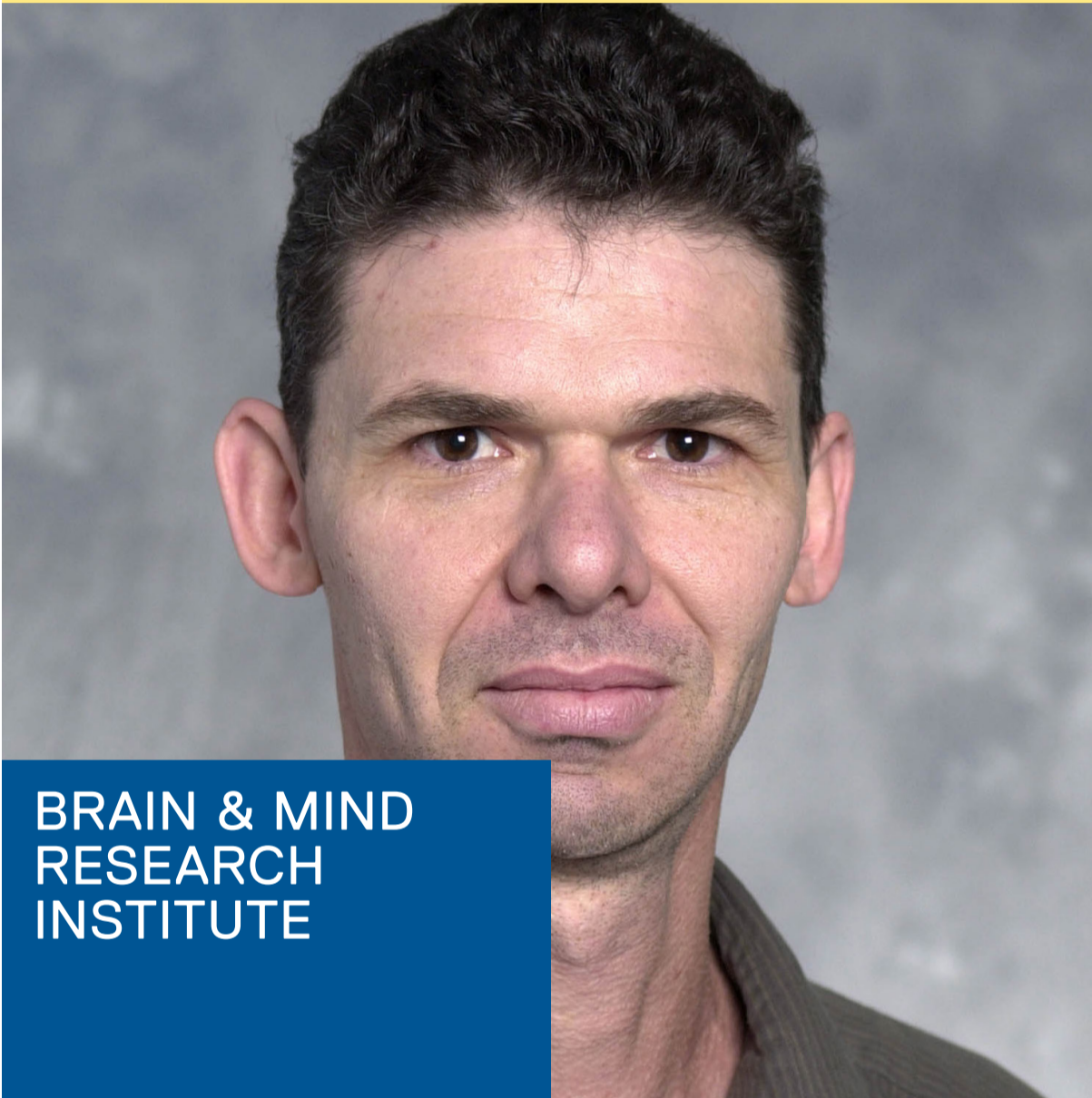


# DEVELOPMENT AND FUNCTION OF THE HYPOTHALAMUS

WE SYSTEMATICALLY TACKLE BASIC QUESTIONS CONCERNING THE DEVELOPMENT AND FUNCTION OF THE HYPOTHALAMUS, WHICH IS A PROMINENT PART OF THE BRAIN THAT REGULATES THE BODY'S HOMEOSTASIS BY CONTROLLING HORMONAL AND BEHAVIORAL FUNCTIONS.



PRESENTED BY  
ASSOCIATE  
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BRAIN & MIND  
RESEARCH  
INSTITUTE



THE UNIVERSITY OF  
SYDNEY

**3:30 – 4:30 pm Friday 7th December, 2012**

**Level 5 Lecture Theatre, 94 Mallett St, Camperdown**

We utilize zebrafish as a vertebrate model organism to study the development and function of the various neurons that make up the hypothalamus. Our main goals are to identify the molecular mechanisms underlying 1) hypothalamic specification, morphogenesis and circuit formation during development. 2) hypothalamic control of body homeostasis in the mature brain. Specifically, we characterize the exact neuroanatomical structure of hypothalamic neurons in the zebrafish brain and identify factors regulating the specification and connectivity of select hypothalamic cell populations. In parallel, we are investigating the role of activity-dependent hypothalamic gene regulation in mediating responses to homeostatic challenges. These wide-ranging findings have advanced understanding of the embryonic development, neuropeptides biology and molecular physiology of the vertebrate hypothalamus.

**SCINAPPS@BRAIN & MIND RESEARCH INSTITUTE**

SCIENCE NEUROLOGY AND PSYCHIATRY/PSYCHOLOGY SEMINARS@BMRI

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