Future approaches to bone repair and modelling

When: 3:15pm arrival for a 3:30pm start on Wednesday, 2 April 2014 (Networking from 5:00pm)
Where: Level 5 / Melbourne Brain Centre - 30 Royal Parade, Parkville
RSVP: Register at http://tinyurl.com/BoneCollaborative by Friday, 28 March 2014

Technological advances are producing new insights into bone repair and remodelling. By intersecting expertise in biology, chemistry and bioengineering, the resulting diverse data can be integrated across different scales to generate a more comprehensive understanding of bone systems in health and disease. Exciting opportunities to translate this knowledge into innovative therapeutic applications are anticipated.

Join us at the next Victorian Systems Biology Collaborative to hear four leading Australian researchers present their latest work. Participate in a discussion forum and networking session following the presentations to explore how these different perspectives will contribute to the way bone fractures and disease will be treated in the future.

Presentations will made by the following speakers:

Dr Colin McHenry from Monash University’s Department of Anatomy and Developmental Biology will discuss why animals (including humans) look the way that they do and the relationship between an animal's structure (its anatomy) and its function (its ecology and behaviour).

Prof Justin Cooper-White from CSIRO, the Australian Regenerative Medicine Institute and the Australian Institute for Bioengineering and Nanotechnology, will showcase his microbioreactor platform, including recent results from studying osteogenesis on a chip and new generation scaffolds for growing stem cells.

A/Prof Peter Pivonka from the Australian Institute for Musculoskeletal Science and The University of Melbourne will talk about the use of computational and experimental approaches to better understand the mechanobiology of bone (re)modelling and new strategies to treat osteoporosis.

Prof Melissa Knothe Tate from the University of NSW will discuss her research into the next generation implant development which mimics the natural regenerative capabilities of periosteum – a thin sleeve-like membrane covering the surface of bones which contains stem cells and growth factors necessary for bone formation and repair.

The workshop is part of the Victorian Systems Biology Collaborative which is designed to build the collective knowledge, networking and understanding of systems biology in Victoria and to help generate a collaborative culture and opportunities across the research and industry communities. It is part of a broader program of initiatives being run by SBI Australia, called Enhancing Systems Biology In Victoria and is funded by Victorian Government.

This event is being co-hosted by Stem Cells Australia.

For more details visit: http://sbiaustralia.org/outreach/vicprogram/