PhD student exchange project. Monash – CUHK

Studying the effect of unilateral cartilage injuries on long bone growth, articular health and scoliosis

- Looking for a PhD applicant (Australian national or Permanent Resident) to be enrolled in Monash University doctoral program under the supervision of Dr Alberto Rosello-Diez (www.rosellodiezlab.com).
- This is a student exchange project that involves a stay of 4+ months at the Institute for Tissue Engineering and Repair (The Chinese University of Hong Kong), under the co-supervision of Prof Gang Li (www.ort.cuhk.edu.hk/staff-ligang.html) and Prof Wayne Lee (https://aims.cuhk.edu.hk/converis/portal/Person/4939555)
- We will use mouse models of limb asymmetry induced by unilateral cell death (see left and right knee sections) in the developing cartilage to study: 1) compensatory mechanisms of bone growth, with a focus on injury-triggered signalling (Monash); 2) effect of the injury on the articular cartilage, including epigenetic modifications, and comparing embryonic and postnatal models to uncover potential repair mechanisms (Monash and CHUK); 3) role of uneven loading in the development of scoliosis, either by itself or by interaction with candidate genetic mutations commonly present in humans with scoliosis (CUHK).
- Outstanding and motivated students with an interest in musculoskeletal development and repair are encouraged to contact alberto.rosellodiez@monash.edu