



Project Title: Designing paediatric orthopaedic implants		Code: CHW7
Host School / Institute: Children's Hospital at Westmead Clinical School		Address: EPIC Lab, Kids Research, Children's Hospital at Westmead
Certificates & Clearances required: Yes *Vaccination Certificate *Working with children clearance *Police clearance * <i>Information on how to obtain certificates, where necessary, will be given to successful applicants.</i>		
Primary Supervisor: Dr Tegan Cheng		
Phone: 0410 510 017	Email: tegan.cheng@sydney.edu.au	
Co-Supervisor/team: This project will involve working with orthopaedic surgeon Prof David Little who is a subject matter expert and will provide the problem statement. Jonathon Lillia is a graduate engineer who will assist with 3D modelling, 3D printing and other aspects of iterative design methodologies in paediatric orthopaedic implant design.		
Project Type: Design; Laboratory based		
Project Category: Bone; Paediatrics/Child Health		
Skills / Attributes of a successful student: Some experience with 3D modelling software. Enthusiasm, creativity and a problem solving attitude.		
Project Keywords: orthopaedics; bone; design; implant; children		
Project Description: The developing skeleton brings unique challenges to the successful design of medical devices for the paediatric population. Children have very different needs to adults, and medical device design requires consideration of their relative size, rapid growth, and high levels of physical activity. In this project, the student will assist in the development of specialty orthopaedic implants for the children. These plates will be used to help correct deformities as the child grows, a concept known as guided growth. This project will involve computer modelling, 3D printing, and an iterative approach to medical device development.		