

Design of Novel Bioreactors for Tissue Engineering

Supervisor: Dr Hu Zhang

Nature of work: Experiments

Area: Chemical Engineering, Tissue Engineering

Funding: *Via* the various University scholarship schemes (see separate information for these).

Brief description: Human mesenchymal stem cells (hMSCs) hold enormous potentials for treatments and ultimately for cures of many diseases for which the adequate therapies do not exist.

However, production of artificial tissues in scaffold in a bioreactor is challenging due to complex nature of the system. Novel bioreactors will provide a suitable mechanical, chemical and electric micro-environment for hMSCs to proliferation and differentiation.

More details on this project or other related advanced research topics can be referred to the website of www.adelaide.edu.au/bio-nano-tech or visit my office. Our current research interests include water, energy, materials, biotechnology, tissue engineering, and others.

