**MELISSA LOUISE KNOTHE TATE** m.knothetate@unsw.edu.au +61 02 9385 3924

**Qualifications:** PhD + Swiss Diploma: Biomedical and Mechanical Engineering (*ETH Zurich*, awarded the Georg Fischer Prize for the top dissertation across all faculties); BS Mechanical Engineering, BS Biological Sciences (*Stanford University*)

**Current Appointment:** Professor andInaugural Paul Trainor Chair of Biomedical Engineering

**Research area and impact:** Prof Knothe Tate was recruited in July 2013 to become the inaugural Paul Trainor Chair of Biomedical Engineering at UNSW. Paul Trainor was the founder of the med tech industry in Australia, and the Trainor Chair was endowed to follow that legacy and to stimulate innovation and commercialisation in Australia's biomedical technology sector. Prof Knothe Tate has led a number of international biotech initiatives, integrating next generation implants with stem cell, orthopaedics and systems biology initiatives, and based on translational initiatives bridging research, medicine and industry (both company and government based).

***Past five years:*** Publications: 40 journal articles, 5 full patents (3 granted, 2 pending)

Grants (Category 1 amount: $5.57M U.S. NIH and NSF; Category 2: $40,000; Category 3: $605,000)

***Lifetime:*** Publications: 77 journal articles, 250 international, peer-reviewed conference papers, >250 invited talks including >20 Plenary and Keynote Lectures)

Grants: $19.5 M total

Higher degree trainees (Postdocs: 1 current, 9 completed; PhD: 3 current, 8 awarded; MS: 8 current, 27 awarded); Medical trainees (1 fellow + 2 residents completed - Cleveland Clinic, 2 ILP students - UNSW)

***Key Contributions to Research Translation:*** Invented 3 disruptive technologies, resulting in a start-up & spin-off (co-Founder): bioz Pty Ltd, TissuTex Pty Ltd; licenced/commercialised medical research tech through Harvard Apparatus; 1st in world R&D agreement with Leica Microsystems, 5+ year R&D collaboration with Zeiss Microscopy. Long term industry consultant and expert witness (medical device litigation).

**Key Leadership Roles in Education, R&D Strategy:** Australian Research Council Excellence for Research in Australia, Research Evaluation Committee for Engineering and Environmental Sciences; Engineering Innovation Theme Review Committee, Trinity College Dublin; Stem Cell Invited Translational Panel, American Academy of Orthopaedic Surgeons; Clinical Priority Advisory Board in Biotechnology, AO Research International; Long range planning panel, National Institute of Arthritis and Musculoskeletal and Skin Diseases, National Institutes of Health; Scientific Advisory Board, Cleveland Bioscience and Engineering Consortium, Cleveland Clinic Foundation.

**Awards & Recognition:** Elected Fellow - American Institute of Medical and Biomedical Engineering, American Society of Mechanical Engineers, Biomedical Engineering Society, Engineers Australia. Clinical translation/innovation awards: Semifinalist Coulter Award for Innovation & Entrepreneurship, Cleveland Clinic Innovator Award, AO Foundation Research Fund Prize Award, Christopher Columbus Foundation – U.S. Chamber of Commerce Life Sciences Award, Senior Humboldt Fellow Award.