

PhD POSITION AVAILABLE

Endometrial receptivity diagnostics: in-vivo optical fibre sensing

Institute for Photonics & Advanced Sensing (IPAS)
Adelaide Proteomics Centre (APC)

Help to develop an optical fibre sensing platform for measuring endometrial receptivity for infertile women and women undergoing in-vitro fertilisation (IVF) treatment. Opportunity available for a biology or biochemistry student to work with a newly appointed ARC Super Science Fellow as part of a transdisciplinary biology – physics team.

A generous top-up scholarship (\$10,000 per annum) is available, and in addition there are opportunities to present research outcomes at national and international conferences and collaborative work with researchers from Prince Henry's Institute and The Robinson Institute.

Project details

Women's infertility is an increasing problem due to pregnancies occurring later in life. While many causes are understood approximately 25% of cases are unexplained. The role of the endometrium in implantation is relatively little understood but is thought to play a significant part in influencing implantation success. There is currently a need to develop new tools and techniques for monitoring the endometrium both for diagnosing infertility and assisting decisions on IVF implantation.

The project will develop new tools for measuring endometrial biomarkers. These tools will then be implemented into an optical fibre sensing architecture in close collaboration with optical physics researchers at IPAS. The postgraduate student will be supervised by Prof Tanya Monro (Director of IPAS), Dr Manuela Klingler-Hoffmann (Microbiology & Immunology Postdoctoral Fellow at APC), and Dr Stephen Warren-Smith (ARC Super Science Fellow at IPAS). The student will work closely with Dr Stephen Warren-Smith. Support for this project will also be provided by Prof Lois Salamonsen (Head of Endometrial Remodelling at Prince Henry's Institute) and Prof Robert Norman (Director of the Robinson Institute).

This exciting, transdisciplinary project in a fast-growing and well-funded research environment provides a unique opportunity to gain a PhD in Biology with a special emphasis on reproductive biology and biophotonics.

Please note that candidates will be required to secure a PhD scholarship from the University of Adelaide or other funding bodies before receiving the top-up scholarship from this project. Citizens or Permanent Residents of Australia with a minimum of a Second Class Honours Division A or equivalent may apply for a divisional scholarship. International students will be required to obtain an international scholarship: <https://www.adelaide.edu.au/graduatecentre/scholarships/postgrad/international/>.

Please forward an expression of interest including a CV detailing your research experience on your previous work to Dr. Stephen Warren-Smith (stephen.warrensmith@adelaide.edu.au).