

ENDOMETRIOSIS - KEY FINDINGS

Our research group has made a number of novel observations relating to endometriosis. Outlined below are some of our key discoveries in this field.

DEVELOPMENT OF THE DISEASE

We were the first group to study a range of immune cell populations in relation to endometriosis. We have shown that immune function in the lining of the uterus is different in women with endometriosis. These differences are likely to contribute to the development of the disease by allowing the survival of tissue resembling the lining of the uterus in sites outside the uterus.

PAIN MECHANISMS

We were also the first group in the world to describe that the lining of the uterus in women with endometriosis contains small nerve fibres in the functional layer. These nerve fibres are not observed in women without endometriosis. The presence of these nerve fibres in women with pain symptoms strongly suggests that in women with endometriosis, the lining of the uterus is involved in the generation of pain symptoms.

IMPROVING TREATMENT

We are working on improving the treatment of endometriosis for women who have severe and persistent symptoms with the use of combined treatment approaches. We are currently trialling a new method of treatment combining hormonal devices that are placed in the uterus and under the skin with very promising results.

CONTINUING RESEARCH

Ongoing research is required to better understand endometriosis. The Queen Elizabeth II Research Institute for Mothers and Infants is committed to progressing the study of endometriosis as a priority and backing the careers of talented young scientists dedicated to this research.

We invite you to consider supporting this important work by making a tax deductible donation.

Simply complete the enclosed form and return it to

**Advancement Services - Level 6 Jane Foss Russell Building
THE UNIVERSITY OF SYDNEY NSW 2006**

Endometriosis Research at Queen Elizabeth II Research Institute for Mothers and Infants
Sydney Medical School

For more information about our research, contact Dr Robert Markham
T +61 2 9351 2722
E robert.markham@sydney.edu.au



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ENDOMETRIOSIS RESEARCH

QUEEN ELIZABETH II RESEARCH INSTITUTE FOR MOTHERS AND INFANTS
SYDNEY MEDICAL SCHOOL



“Endometriosis symptoms are often debilitating and have negative impacts on the ability of women to work, their personal relationships and self-esteem. In addition, while the precise figures are unclear, endometriosis has a significant economic impact on society.

Despite extensive investigation, the cause of the disease remains undefined. Investment in our research will allow us to better understand how endometriosis develops, whether we can prevent the disease, and how best to minimise the potentially devastating effects on women.”

DR ROBERT MARKHAM
SENIOR LECTURER – DEPARTMENT
OF OBSTETRICS, GYNAECOLOGY
AND NEONATOLOGY

ENDOMETRIOSIS RESEARCH AT QUEEN ELIZABETH II RESEARCH INSTITUTE FOR MOTHERS AND INFANTS

ENDOMETRIOSIS

This disease, defined as growth of lesions resembling the lining of the uterus (endometrium) in sites outside the uterus, affects 10-15% of reproductive aged women. **Most women with endometriosis describe some form of pelvic pain, which is frequently severe and debilitating.** Common pelvic pain symptoms in endometriosis include excessive menstrual pain, pain during or after intercourse, pelvic pain with bowel motion and chronic pelvic pain. In fact, endometriosis is the most common cause of chronic pelvic pain among women.

Of women with infertility, 50% will be found to have endometriosis, however the ways in which endometriosis causes infertility are not well understood. There are many factors thought to contribute to infertility in endometriosis, including abnormal lining of the uterus, disturbances in the woman's immune response to the implanting embryo and scarring of the pelvic organs.

OUR RESEARCH

Our research is focussed around understanding disease development, investigating pain mechanisms and improving diagnosis and treatment. **Our current endometriosis research includes:**

- Development of the disease (pathogenesis)
 - Role of the immune system (immunology)
 - Study of genes (genetics)
 - Protein expression (proteomics)
 - Microscopic anatomy of cells and tissues (micro-anatomy)
 - Lymphatic vessel growth (lymphangiogenesis)
 - Blood vessel growth (angiogenesis)
- Pain and other symptoms
- Screening and diagnosis
- Effectiveness of treatment

HOW YOU CAN HELP

Our bright team of young scientists is passionate about this challenging research into endometriosis. Unfortunately medical research funding is becoming more difficult, especially in the area of women's health. **Your gift will help to support this important research aimed at improving outcomes for women with this often devastating disease.**

I would like to support the endometriosis research at Queen Elizabeth II Research Institute for Mothers and Infants

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Gifts over \$2 are tax deductible. Pledges may be varied or cancelled at any time.

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Advancement Services, Building G02
The University of Sydney, NSW 2006 Australia
Fax +61 2 8627 8819