

## **Ambitious Burnet Institute-led women's health research project wins MRFF Frontier funding in collaboration with Institute for Genome Sciences scientists**

A bold and innovative collaborative research project into women's sexual and reproductive health has won a major competitive funding grant to fast track its development from concept to outcome.

The ambitious idea of creating a novel device with the potential to regulate the vaginal microbiota over a woman's lifetime, help prevent the transmission of sexually transmitted infections STIs and HIV, and also provide contraception, has attracted Medical Research Future Fund (MRFF) Frontier Health and Medical Research Program funding of AUD\$895,000.

The EVE-M (Enhancing the Vaginal Environment and Microbiome) project brings together a multidisciplinary team from Burnet Institute, Swinburne University of Technology, Melbourne Sexual Health Centre (The Alfred and Monash University), Deakin University, Family Planning NSW, Eudaemon Technologies and Dr. Ravel from the Institute for Genomes Sciences (IGS), University of Maryland School of Medicine, who is an expert in the role of the vaginal microbiome in health and diseases.

In summary:

- The EVE-M initiative is a bold, transformative approach to improving women's sexual and reproductive health
- The funding boost will fast track the creation of a novel device to regulate the vaginal microbiota over a woman's lifetime
- The innovative technology will help prevent STIs and HIV, and reduce unplanned pregnancies
- It's one of only 10 projects awarded the MRFF Frontier Stage One funding, and the only one of these projects focused on women's health
- Stage one funding opens the door to potential millions of dollars of support to advance EVE-M to stage 2

Burnet Institute's Head of Life Sciences, and Principal Investigator, Professor Gilda Tachedjian said: "This is a tremendous opportunity to advance our concept of improving women's sexual reproductive health through innovative technologies that target the vaginal microbiota. What this funding support does is take our high-impact ideas and gives us the resources to progress these as part of a multidisciplinary team."

"We will leverage our extensive understanding of the role of the vaginal microbiome in women's health and diseases, including sexually transmitted infection and pregnancy outcomes, in particular preterm birth, that we have developed at IGS to drive the development of new technologies to restore and maintain protective vaginal microbiomes," said Dr. Jacques Ravel, Associate Director Genomics and Professor of Microbiology and Immunology at IGS, University of Maryland School of Medicine.

One of these technologies is an intravaginal ring that could release a molecule to help enhance the mucosal environment and 'optimise' microbiota in the vaginal tract to prevent STIs and HIV, as well as adverse reproductive health outcomes. The ring will also contain a contraception to prevent unplanned pregnancies.

Contraception for women hasn't really improved in 50 years and women's health is often not prioritised. This device can improve the vaginal microbiota, help prevent STIs, help prevent HIV, as well as reduce unplanned pregnancies, it will have a dramatic impact on women's health, and also the global economy.

The global burden, the health and economic cost of STIs, bacterial vaginosis and unplanned pregnancies are estimated to cost over 70 billion dollars a year.

Burnet Institute Director and CEO, Professor Brendan Crabb AC congratulated Professor Tachedjian and her collaborators on securing the unique funding.

"It's an extraordinary outcome for the team who have a bold vision of transforming the antiquated current sexual and reproductive health toolkit, and it provides an opportunity for a paradigm shift in women's sexual and reproductive health," Professor Crabb said.

"This new source of funding is supporting cutting-edge research that has the potential to have a transformative impact on human health and immediate global impact. This underscores what Burnet's about, translating our discoveries into practical health outcomes."

**Angus Morgan**

Manager, Media and Multimedia  
Burnet Institute  
Mob: 0407 357 253  
[angus.morgan@burnet.edu.au](mailto:angus.morgan@burnet.edu.au)

**Sarah Pick**

Director, Marketing and Public Relations  
Institute for Genome Sciences  
M: 410.707.2543  
[spick@som.umaryland.edu](mailto:spick@som.umaryland.edu)

**About the University of Maryland School of Medicine**

Now in its third century, the University of Maryland School of Medicine was chartered in 1807 as the first public medical school in the United States. It continues today as one of the fastest growing, top-tier biomedical research enterprises in the world -- with 43 academic departments, centers, institutes, and programs; and a faculty of more than 3,000 physicians, scientists, and allied health professionals, including members of the National Academy of Medicine and the National Academy of Sciences, and a distinguished recipient of the Albert E. Lasker Award in Medical Research. With an operating budget of more than \$1 billion, the School of Medicine works closely in partnership with the University of Maryland Medical Center and Medical System to provide research-intensive, academic and clinically based care for more than 1.2 million patients each year. The School has over 2,500 students, residents, and fellows, and more than \$530 million in extramural funding, with most of its academic



## MEDIA RELEASE

departments highly ranked among all medical schools in the nation in research funding. As one of the seven professional schools that make up the University of Maryland, Baltimore campus, the School of Medicine has a total workforce of nearly 7,000 individuals. The combined School and Medical System (“University of Maryland Medicine”) has an annual budget of nearly \$6 billion and an economic impact more than \$15 billion on the state and local community. The School of Medicine faculty, which ranks as the 8<sup>th</sup> highest among public medical schools in research productivity, is an innovator in translational medicine, with 600 active patents and 24 start-up companies. Th School works locally, nationally, and globally, with research and treatment facilities in 36 countries around the world.

Visit [medschool.umaryland.edu](http://medschool.umaryland.edu).

### **About the Institute for Genome Sciences**

The Institute for Genome Sciences, founded in 2007, is an international research center within the University of Maryland School of Medicine. Comprised of an interdisciplinary, multidepartment team of investigators, the Institute uses the powerful tools of genomics and bioinformatics to understand genome function in health and disease, to study molecular and cellular networks in a variety of model systems, and to generate data and bioinformatics resources of value to the international scientific community.

[igs.umaryland.edu](http://igs.umaryland.edu)