



Meet the 2018 Ferring Innovation Grants recipients

In 2018 Ferring's [Innovation Grants Program](#), an initiative of the Ferring Research Institute (FRI), provided grants to early-stage researchers working in Gastroenterology & Hepatology, Reproductive Medicine & Women's Health, Urology, and Biomarker Discovery in the aforementioned area. We caught up with the latest grant recipients to learn more about their fascinating research projects, their diverse passions – from being a huge Star Wars fan, to competing in dog agility contests - and their shared desire to improve the lives of patients all over the world.

Visit www.ferring-research.com/ferring-grants to learn more about the **Ferring Innovation Grants Program**.



Name: Fiona Cousins

University: Hudson Institute/Monash University

Research Project: *New treatment of endometriosis in a preclinical model*

How would you summarize your research project?

We are aiming to find new treatments for endometriosis that are more effective than the current options available for women

What motivated you to research this area?

Women with endometriosis have so few options available to them to manage/treat their symptoms. I am motivated to find a more effective therapeutic so that women do not have to undergo repeated surgeries to remove their lesions.

What do you hope to achieve through the Ferring Innovation Grants program?

Using our pre-clinical model we hope to identify a new target for drug design. The data obtained during this project would provide a platform for further funding to allow us to translate our benchtop discovery into the clinic.

Most exciting thing about your research project?

We are investigating a really novel target which is exciting but the fact that this work has the potential to help millions of women worldwide is really motivating!

Most challenging part of your research project?

Finding ongoing funding for this work has been a challenge since women's health is quite a niche area, but this Ferring Innovation Grant is enabling us to do some amazing research, so thank you to Ferring!

How would you describe yourself in 3 words?

Sarcastic Scottish Scientist!



Name: Laurent Derré, Research Associate, PhD

University: Centre Hospitalier Universitaire Vaudois, University of Lausanne, Switzerland

Research Project: *Immunotherapeutic strategies targeting group 2 innate lymphoid cells and myeloid-derived suppressor cells to treat bladder cancer.*

How would you summarize your research project?

In order to define new treatment for bladder cancer, we will investigate the role of a novel type of immune cells that seems to be prominent in the development of bladder tumor.

What motivated you to research this area?

I have always been fascinated by the way tumours can hijack regulatory mechanisms. I want to better understand immune regulatory mechanisms involved in bladder cancer and its treatment to optimise immunotherapy against bladder cancer.

What do you hope to achieve through the Ferring Innovation Grants program?

Bladder cancer is the ninth most common cancer in the world. We ultimately want this research to help the estimated 430,000 people diagnosed each year.

Most exciting thing about your research project?

We are studying a new subset of innate cells that has never been characterized in bladder cancer.

Most challenging part of your research project?

This subset of innate cell represents a tiny population among all immune cells, rendering them more difficult to visualize and manipulate.

How would you describe yourself in 3 words?

Curious, enthusiastic, discreet.

Interesting fact about yourself?

I am a big Star Wars fan.

Anything else you'd like to add?

I would like to thank the Ferring team for supporting our research.



Name: Marta G. Dueñas Porto, Ph.D.

University: Fundación para la Investigación Hospital 12 de Octubre-CIEMAT, Madrid, Spain.

Research Project: *Evaluation of miRNAs and miRNA derived peptides (miPEPs) in liquid biopsies for bladder cancer diagnosis, prognosis and BCG treatment response.*

How would you summarize your research project?

At present, the diagnosis and follow-up of bladder cancer is carried out by means of evaluation by the doctor through cystoscopy (an expensive and invasive procedure). We want to identify biomarkers that, by a simple analysis of urine, allow a diagnosis of bladder cancer and which patients could benefit from the most usual treatment in order to avoid recurrences.

What motivated you to research this area?

At present, bladder cancer has been left a little behind in terms of diagnostic tools and prognosis compared with other tumor types (eg, breast, lung), with high costs for health systems and compromising quality of life for patients. I believe that the use of new technologies can help reduce both and, by previous studies of our research group, the use of miRNAs opens new and promising perspectives in this regard.

What do you hope to achieve through the Ferring Innovation Grants program?

We hope to be able to make a personalized diagnostic tool available to urologists that will allow physicians in a fast and simple way to know if a patient is positive to bladder cancer and which patients will benefit from a BCG treatment at tumor diagnosis or follow up.

Most exciting thing about your research project?

I am very positive that we will be able to obtain a good and simple system, allowing reduction of the large amount of patients that go to the operating rooms for invasive procedures as well as prediction of the best personalized treatment.

Most challenging part of your research project?

To identify and validate with a good accuracy the selected biomarkers in a 12-month period.

How would you describe yourself in 3 words?

Perseverant, Creative and Optimist.

Interesting fact about yourself?

Working in science, I have been traveling to several places. In all laboratories, I have met very hard working encouraging scientists as mentors and models to follow. I hope to become one of them.

Anything else you'd like to add?

I really appreciated the good evaluation of our project proposal from Ferring and I really hope to succeed in alleviating the suffering and pain from bladder cancer patients by using liquid biopsy for diagnostic and response to therapy.



Name: Dr Tracey Edgell

University: Hudson Institute of Medical Research

Research Project: *A novel non-hormonal therapeutic path for improving pregnancy success rates*

How would you summarize your research?

This project examines a potential new drug target to improve the quality of the uterus lining and increase the likelihood of a successful pregnancy.

What motivated you to research this area?

The realization that assisted reproduction currently does not provide an answer for so many women seeking to start a family.

What do you hope to achieve through the Ferring Innovation Grants program?

Proof-of-principle in vitro demonstration that the CSF3 receptor can be re-established on the endometrial surface achieving a resultant improvement in endometrial function and implantation. Additionally, we will identify which specific aetiologies will benefit from this novel approach.

Most exciting thing about your research project?

Providing an avenue to improving the endometrium function will be an invaluable tool in the individual management of women affected by infertility.

Most challenging part of your research project?

Working with a receptor in epithelial cells for which current knowledge is heavily based on immune cell studies.

How would you describe yourself in 3 words?

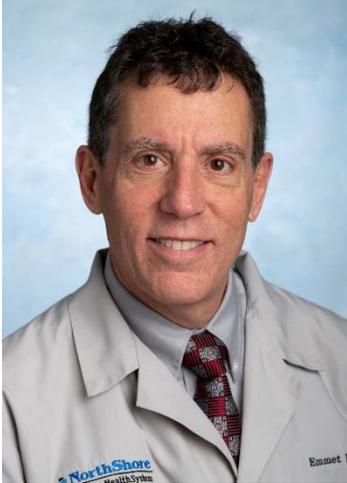
Curious. Logical. Adaptable.

Interesting fact about yourself?

I spend my free time running around the countryside with my dogs competing in agility, obedience and tracking.

Anything else you'd like to add?

Thank you to Ferring for funding innovation in its earliest stages.



Name: Emmet Hirsch

University: University of Chicago

Research Project: *A novel use for surfactant protein A (SP-A) to prevent preterm delivery*

How would you summarize your research project?

We are studying an exciting new substance that may be useful for the prevention of preterm birth, the most common cause of illness and death in newborn babies.

What motivated you to research this area?

As a practicing obstetrician-gynecologist I have witnessed firsthand the despair and pain experienced by families and their newborns delivered with extreme prematurity. Some of the complications of prematurity among survivors are life-long. If the death and illness due to prematurity can be prevented it would be a great contribution to human health.

What do you hope to achieve through the Ferring Innovation Grants program?

The grant will allow us to take the first steps that I hope will lead to development of a safe and effective therapeutic agent.

Most exciting thing about your research project?

The potential for benefit.

Most challenging part of your research project?

The many steps required before therapeutic use can be realized.

How would you describe yourself in 3 words?

Creative, motivated, principled

Interesting fact about yourself?

I have published a novel entitled *The Education of Doctor Montefiore*, a laugh-and-cry-out-loud story about a resident in obstetrics and gynecology.



Name: Harmeet Malhi, M.B.B.S.

University: Mayo Clinic, Rochester, MN

Research Project: *Hepatocyte-derived extracellular vesicle sphingolipidomics are a diagnostic and prognostic biomarker in nonalcoholic steatohepatitis*

How would you summarize your research project?

The goal my research is to identify a blood test for the diagnosis and follow up assessment of fatty liver disease.

What motivated you to research this area?

Nonalcoholic fatty liver disease is the most frequent chronic liver disease worldwide. Currently, there are no approved pharmacologic therapies, imperfect biomarkers and only a partial understanding of disease pathogenesis. For all of these reasons the development of novel biomarkers would facilitate patient care, drug development and improve our understanding of this disease.

What do you hope to achieve through the Ferring Innovation Grants program?

Develop a novel extracellular vesicle biomarker for nonalcoholic steatohepatitis.

Most exciting thing about your research project?

Compared to a liver biopsy a blood based test offers several advantages including significantly less risk to the patients, the ability to perform repeated measurements over time and wide applicability.

Most challenging part of your research project?

Identifying a hepatocyte-specific extracellular vesicle biomarker.

How would you describe yourself in 3 words?

Organized, driven, approachable.

Interesting fact about yourself?

I love the outdoors, whether it's hiking, climbing, biking, skiing or traveling to new places.

Anything else you'd like to add?

I am thankful for the support from Ferring and collaborations with colleagues that have supported this research.



Name: Hiroshi Miyamoto, MD, PhD

University: University of Rochester School of Medicine and Dentistry, Rochester, New York, USA

Research Project: *The role of latrophilins in urothelial tumorigenesis: a novel chemopreventive target for bladder cancer*

How would you summarize your research project?

This project aims to investigate the functional role of latrophilins, a group of proteins originally identified as receptors to which spider venom binds, in the development of bladder cancer as well as the modulation of sensitivity to pharmacotherapy clinically used for the prevention of bladder cancer recurrence.

What motivated you to research this area?

Men are at a significantly higher risk than women of developing bladder cancer. To explain the sex-specific difference in its incidence, we have been studying the role of androgen receptor (AR) signaling in the development and progression of bladder cancer. Recently, we performed DNA microarray analysis to isolate downstream targets of AR and found that the expression of *ADGRL3* gene encoding latrophilin-3 in humans was down-regulated in AR knockdown bladder cancer cells and was up-regulated in BCG/cisplatin-resistant sublines. Interestingly, although the functions of latrophilins in humans remain poorly understood, their genetic alterations have been linked to susceptibility to attention deficit hyperactivity disorder which is diagnosed approximately 3 times more often in boys than in girls. Based on these observations, we hypothesize that latrophilins represent key molecules which induce bladder carcinogenesis as well as resistance to intravesical BCG immunotherapy and chemotherapy.

What do you hope to achieve through the Ferring Innovation Grants program?

Our goal is to determine whether latrophilins represent potential targets for developing chemopreventive agents, as well as sensitizers that enhance the efficacy of currently available intravesical treatment options, against bladder cancer.

Most exciting thing about your research project?

This project will contribute to not only elucidating the underlying mechanism of how androgen receptor signaling promotes the development of urothelial cancer but also providing a novel target for drug discovery in bladder cancer.

Most challenging part of your research project?

It will be to efficiently translate our preclinical data obtained through the proposed experiments into clinical practice.

How would you describe yourself in 3 words?

Organized, observant, and perseverant

Interesting fact about yourself?

I have a multifaceted background in urology, pathology, and steroid hormone receptor research. I am trained and have worked both as a urologist (previously in Japan) and as a pathologist (currently as the Director of Genitourinary Pathology).

Anything else you'd like to add?

We are incredibly grateful to Ferring to support our project.