



Magee's Endometriosis Research Takes a Unique Approach

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A Message from Dr. Robert Edwards

We very much encourage you to join Doximity, a platform that allows healthcare professionals to stay connected to colleagues and former residents, fellows and faculty.

It also includes the ability to vote for the best resident programs and the best overall women's health programs in the country. I encourage you to represent our program accordingly as colleagues and alumni of our program. We hope you will consider promoting our national reputation and showing your Magee pride by voting in favor of our department.

We have several new hires within the department, many who are focused on health outcomes research and others focused on areas where we are trying to improve outcomes within our UPMC community outside of Pittsburgh.

These include the addition of **Jessica Berger** in gynecologic oncology who will be working at Hamot in Erie, Pa, as well as at Magee and Passavant in Pittsburgh. Jessica was one of our

favorite fellows who gets along quite well with our residents and fellows and is considered to be a premier teacher. In addition, she is favored among her patients for her outstanding clinical care.

We have also hired **John Harris** who will be working on health outcomes research and career development. John comes to us through the Robert Wood Fellowship training program and he will be engaged in WRHR training here at Magee, looking specifically at gynecology outcomes and improvement of overall care.

We have hired a new urogynecology staff member, **Pamela Fairchild**. Pamela comes to us from the University of Michigan training program. She will also be working in Erie with the Hamot initiative, as well as at Magee. We are quite pleased to have added Pamela to our urogynecology group.

Our urogynecology program continues to receive high notoriety at the national urogynecology meetings (AUGS). Several of our trainees and former faculty are very prominently represented at AUGS initiatives including Dr. Halina Zyczynski who is the incoming President of the society.

We continue to focus on improving community outcomes and doing population-based research. We are looking at expanding our genomic testing within the department so that we may better serve our patients by predicting future disease possibilities and instituting preventative strategies. This includes cancer genetic testing, as well as prenatal self-read DNA analysis which is quickly replacing amniocentesis as the approach of choice for screenings for genetic conditions.

Many new and exciting programs are going on at Magee and we look forward to seeing you at our Alumni Day next year or at one of the regional or national society meetings where we hope to be able to personally discuss the new innovative approaches to medical care being developed at Magee.

Best regards,

Robert P. Edwards
Milton Lawrence McCall
Professor & Chair
Department of Obstetrics,
Gynecology & Reproductive
Sciences



First Foreign Resident Reflects on Time at Magee

Born in Corchiano, Italy, Dr. Fernando Giustini was one of the first foreign residents in Magee's obstetrics and gynecology residency program.

He is very proud of where he came from and his family history. "My father was a leader in the Italian resistance during World War II and helped many Jews escape the Holocaust," he explained. A few years ago, Dr. Giustini reunited with a Jewish woman his family helped escape and she thanked him and his family for saving her life.

His father, Antonio, later became the Italian Vice-Consulate, was transferred, and moved their family to Pittsburgh. Before moving, a doctor from Rome used to join his family for dinner. Dr. Giustini was fascinated by the doctor's work and it sparked his interest in the medical profession.

In Pittsburgh, Dr. Giustini attended McKees Rocks High School, which at the time was a school for immigrants. After graduating, he attended Duquesne University for one year studying pre-med until one of his professors gave him some career advice. "My professor told me that I wouldn't be able to get into any American medical schools because I wasn't a U.S. citizen. He encouraged me to go back to Rome to complete my medical studies," he said.

He moved back to Italy and graduated from Università degli Studi di Roma La Sapienza. There, he became interested in the obstetrics and gynecology field. But his family missed him. "My family was still in America so they convinced me to move back to the states to be closer to them," he said. Dr. Giustini moved back to America and got an internship at Wheeling Hospital.

While in Wheeling, the Chief of Staff invited Dr. Giustini to dinner one evening and introduced him to his daughter Virginia, a Juilliard graduate who performed with the Von Trapp Family Singers. That dinner would change both of their lives. They felt an immediate connection. Virginia, who had been home on a break, decided not to return to the Von Trapp Family Singers and stayed home to get to know him better. Dr. Giustini and Virginia got engaged three months later and married the following summer in June 1957. A year later, Dr. Giustini became a U.S. citizen.

To pursue his interest in obstetrics and gynecology, Dr. Giustini knew that Magee was the best. He was accepted into Magee's residency program which was a first for a foreign born resident. "I believe I was one of the first, if not the first, foreign resident at Magee. It was such a sought after program so I was very happy to be a part of it," he explained.

During his residency, Dr. Milton McCall was Department Chairman. Dr. Giustini credits him with being one of his biggest mentors. "I got along really well with Dr. McCall. But he was tough. He expected a lot from his residents," he said.

One thing Dr. Giustini did not enjoy about his time at Magee was the food. "During that time, the food was absolutely terrible. Dr. Marvin Rulin and a few of us collected money and we bought a grill. Every evening, we would be outside of the hospital grilling dinner in our lab coats," he explained.

Dr. Giustini also excelled because he was experienced in European techniques. "I was one of the only doctors who had experience with colposcopy procedures. The procedure actually started in Europe.

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Magee's Endometriosis Research Takes a Unique Approach



Magee is taking a different approach than many other institutes studying endometriosis.

Through collaboration with Magee-Womens Hospital of UPMC, Magee-Womens Research Institute, and the University of Pittsburgh, investigators are examining tissue specimens, as opposed to outside entities like the abdomen, to discover why endometriosis forms and why it leads to certain subtypes of ovarian cancer.

When Dr. Nicole Donnellan (Resident 2010, Fellow 2012), a minimally invasive gynecologic surgeon at Magee-Womens Hospital of UPMC, started her residency at Magee, she saw an opportunity to learn more about endometriosis. "I was amazed at the volume of endometriosis surgery that our department performs. It was just an area that was ripe for research. When I transitioned to a fellow, I started a grassroots campaign to begin researching it," she said.

The reason Dr. Donnellan wanted

to focus on this disease was the large toll it takes on patients. "These women are struggling with extreme, chronic pain. Some patients are not able to go to work or school because of the symptoms. Others face infertility issues. Although I can help with my surgical skills, there is a huge deficit in the research and science behind the disease," she said.

Dr. Donnellan collaborates with Dr. Bryan Brown of the McGowan Institute for Regenerative Medicine at the University of Pittsburgh. Their main focus is why endometriosis forms in some women and not others. Dr. Donnellan explained, "We are focused on endometriosis as a benign gynecologic condition. How does it establish itself and proliferate? Dr. Brown is looking at various inflammatory markers to see the role a woman's immune system plays in the establishment and propagation of the disease."

Dr. Donnellan further explained Magee's approach, "Most studies to date have focused on the inflammatory milieu in the pelvis of individuals affected with endometriosis. Very little has been

done on examining actual tissue specimens. We are pioneering investigations of the inflammatory response in endometriosis tissue. Through the collaborations I have established with basic scientists such as Dr. Brown, we have amassed a large collection of tissue and blood from patients with endometriosis."

Dr. Anda Vlad works across the street from the hospital as a cancer immunologist at Magee-Womens Research Institute. Running parallel to Drs. Donnellan and Brown's research, Dr. Vlad investigated why certain cases of endometriosis lead to ovarian cancer and the immunotherapy response. She explained, "For many years, pathologists have reported that endometriosis lesions are sometimes seen adjacent to cancer lesions. The question became is there a link between them and how do these lesions progress?"

Dr. Vlad is interested in the earlier steps of cancer progression. "I have always been interested in developing new cancer immunotherapies. I focus on vaccination approaches or

immune therapeutics that can be given to patients to prolong survival in ovarian cancer. Understanding precursor lesions is very important because you can design approaches that have to do with cancer prevention and, in my case, immune-prevention," Dr. Vlad said.

In the study, Dr. Vlad and her team looked at three different types of lesions. "We looked at the purely benign endometriosis, the pre-malignant called atypical endometriosis, and the fully malignant ovarian cancer lesions. We were able to identify a new role of an 'old' immune pathway that seems to be very stimulated in endometriosis and endometriosis-associated ovarian cancer which is called the complement pathway." The study revealed new characteristics of inflammation in precursor lesions.

Dr. Vlad also explained what sets Magee's research apart from other institutes. "Very few papers out there actually include the category of patients that we included- the atypical endometriosis samples. We are among the very few to publish work where this category of lesions are included. Our study was also the first to unravel the role of the complement pathway in endometriosis and endometriosis-related ovarian cancer," she said.

Dr. Vlad and Dr. Donnellan were also involved in a previous study that examined endometriosis from a different standpoint. Led by Drs. Swati Suryawanshi, Robert P. Edwards, and Xin Huang, the study examined the role microRNAs play in endometriosis and ovarian cancer. This study found that distinct plasma microRNAs may serve as biomarkers that distinguish between healthy subjects, endometriosis patients, and patients with endometriosis-associated ovarian cancer.

Currently, a group of Magee researchers are in the process of submitting a paper for publication about estrogen's role in the progression of endometriosis to ovarian cancer. Dr. Michelle Boisen (Resident 2013, Fellow 2016), assistant professor of gynecologic oncology at Magee-Womens Hospital of UPMC, worked on that study, together with Dr. Steffi Oesterreich, an expert in estrogen signaling. "We looked at the genetic profiles of estrogen-regulated genes in the three types of lesions. Because endometriosis is estrogen responsive, we anticipated that we would find a group of estrogen-regulated genes involved in the transformation of endometriosis into cancer. However, the genetic profiles were actually more consistent with inactivation of estrogen signaling and were consistent with estrogen resistance," she said.

Their study did find an upregulation of another gene. Dr. Boisen explained, "One of the interesting things we found is that there is an up regulation of the FGF18 gene in endometriosis-associated



Nicole Donnellan, MD



Anda Vlad, MD, PhD



Michelle Boisen, MD

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2016 Alumni Day

The 41st Annual Magee Alumni Day festivities began on Thursday, October 13, with a reception at the Pittsburgh Golf Club. On Friday, October 14, an exciting lineup of speakers, including past and current faculty and former residents gathered for an informative day of lectures about clinical care and research at Magee. The event concluded with lunch and tours of the hospital.

OB/Gyn Residency Program Director, Gabriella Gosman with guest speaker, Carolyn Kubik, '82.



Department Chairman, Robert Edwards, '89; with guest speakers, Lisa Flowers, '96; Laura Riley, '89, Sharon Achilles, '09, '11; and Dan Edelstone, '75, '76 Alumni Day Co-Director, Richard Guido, '92.



Richard Guido, '92 presenting Dan Edelstone, '75, '76 with the Drs. Hutchinson, Hayashi and Rulin Legacy Lecture plaque.



David Katz, '65 and Saul Berg, '70.



Classmates, Kim Brooks, '96, Susan Capelle, '95 and Lisa Flowers, '96.

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Resident Alumni Spotlight

When I was in Wheeling, some people had not even heard of it," he said.

During his residency, Virginia gave birth to their first son, Anthony, at Magee. Dr. Giustini graduated in 1960 and then served time in the Air Force at Westover Air Reserve Base. "I loved being a doctor, and I especially loved being a doctor during the war," he said.

After his military service, Dr. Giustini returned to West Virginia and started an obstetrics and gynecology private practice. He eventually ran the residency program at Ohio Valley Hospital and enjoyed helping younger physicians. "I really enjoyed teaching and interacting with residents. I stay in touch with a lot of the residents I worked with. We had a big reunion with former residents and their families a few years ago," he said.

Dr. Giustini retired more than a decade ago and splits his time between Wheeling and Sarasota, Florida, with annual visits to his birth home and family in Italy. Dr. Giustini and Virginia have been married 59 years and enjoy spending time with their two sons and five grandchildren.

Looking back, Dr. Giustini values his Magee experience, "I really enjoyed my residency. I loved those three years. I learned a lot and the people at Magee were very, very good to me." Dr. Giustini continues to support the Residency Training Program by making annual donations. "I believe that others should get the highest level of training possible like I did at Magee."

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Magee's Endometriosis Research...

cancers which has been implicated in tumor progression in other types of ovarian cancer."

With three different areas of study, there is an opportunity for future collaboration. Dr. Vlad commented, "I looked at immunity, another group looked at estrogen, and we previously worked with microRNA control. Eventually, we want to put all of these networks together in a study."

According to each investigator, these studies are just the

beginning and there is much more to explore. Dr. Donnellan explained, "We have a pressing need to investigate this. We've only just started when it comes to endometriosis research. Exciting things are happening here. If we all continue to collaborate on this research, we have the opportunity to make a real difference in the lives of our patients."

To refer a patient to Dr. Donnellan or if you have a patient interested in a research study, please call 412-641-6412.

News

New CEO Leads Research Institute and Foundation



In April 2016, Michael Annichine was appointed by the Magee-Womens Research Institute & Foundation's Board of Directors as Chief Executive Officer.

Annichine has over 20 years of experience leading local and national businesses from startups to growth organizations.

Annichine commented on his appointment, "I'm excited about our science and the huge impact we are making globally and for future generations."

Retired Physician Establishes Gynecology Chair



Dr. Anisa I. Kanbour, a distinguished pathologist and former Medical Director of the Anisa I. Kanbour School of Cytology, has made a transformational gift to establish The Kanbour Chair of Gynecology.

This generous endowment will provide a generous stream of income to support gynecological research, and specifically research in the lower genital tract.



**MAGEE-WOMENS
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Alumni Events Save the Dates

SMFM – Jan 23-28, Las Vegas
– *A dinner is being planned, more details via email.*

SGO- Tuesday evening, March 14, National Harbor, MD
– *A reception is being planned, more details via email.*

ACOG – Saturday evening, May 6, San Diego
– *A reception is being planned, more details via email.*

Research Day in Reproductive Biology and Women's Health
Friday, May 19, Magee-Womens Hospital of UPMC

Join our E-mail List
We need your email to let
you know of the great things
happening at Magee, including
alumni events.
Please email Colleen Gaughan
at cgaughan@magee.edu with
the subject line, "Add Me:"