Fertility Preservation Program
Preserving Fertility Choices for Cancer Patients

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Dear Friends,

I continue to be very proud of the many research and clinical accomplishments our department is achieving.

As you will see in the News section, many of our physicians are being recognized for their outstanding work. We know that many of you outside of the region who trained here are also achieving remarkable benchmarks. Please let us know about your successes.

A true icon of our department belongs to Dan Edelstone, who is featured in the Alumni Spotlight. Dan’s simple training question of “what if the electricity went off?” has greatly influenced many graduates.

We welcome our new additions to the Department of Obstetrics and Gynecology including our physicians at the Hamot Women’s Hospital in Erie, PA, soon to be called Magee-Womens Hospital at Hamot where we have seven new faculty members.

In addition, we are actively looking at recruitment opportunities for UPMC Altoona and looking at closer alignment with the newest UPMC Hospital – UPMC Susquehanna. As you can imagine, as our regional expansion continues, we are beginning to look more carefully at Magee as a hub for regional women’s health.

We are partnering more closely with the UPMC Health Plan to manage resources and costs. We have initiated a new OB bundle payment model that encapsulates all payments for normal obstetric care through the course of the pregnancy and post-partum period. Our department believes that these new financial models may facilitate improved quality, as well as allow us to provide the infrastructure needed to function with the evolution of healthcare occurring secondary to The Affordable Care Act.

We look forward to giving you updates about our ever expanding department and our academic mission which continues to grow rapidly.

I hope to see many of you at one of our upcoming alumni events which are listed on page 10. Over the last few years, we have made an effort to hold more alumni social events to keep the Magee family close. Whether you trained here as a resident or fellow or perhaps are a former faculty member, you are all part of the Magee family. It has been a pleasure to catch up with so many of you from all across the country. These events are a wonderful time to reminisce, network and share innovations in our field. I hope you will take time to attend these events when your schedule permits.

As I mentioned in our last newsletter, if you haven’t already done so, please join me on Doximity to stay connected to colleagues and alumni, as well as to support our women’s health programs.

Thank you for continuing to remain in touch and be involved with our program at Magee.

Best regards,

Robert P. Edwards
Milton Lawrence McCall Professor & Chair
Department of Obstetrics, Gynecology & Reproductive Sciences
Dr. Daniel Edelstone has made a lasting impact at Magee-Womens Hospital of UPMC through the thousands of babies he has helped deliver and the hundreds of medical students and residents he has trained to be successful doctors.

Dr. Edelstone grew up in Los Angeles, California where his mother owned a maternity store and his father sold toys. “I think it was imprinted on me to follow the career path that I did,” Dr. Edelstone joked. At 12 years old, Dr. Edelstone knew he wanted to be a doctor. “My dad had colon cancer and I think that was a motivating factor for me to go into the medical field,” he said.

While in medical school at University of Southern California, Dr. Edelstone learned a lot from shadowing his faculty advisor who was the chairman of the OBGYN department. Dr. Edelstone remembered the first time he helped deliver a baby. “There was no doctor available to deliver, so my advisor and I did it. The baby was a 6 lb. 11 oz. little girl. It was 48 years ago, but I remember it like it was yesterday,” he said.

In 1972, Dr. Edelstone came to Magee-Womens Hospital of UPMC for his residency. In contrast to the lengthy orientations residents have today, Dr. Edelstone remembers being thrown right in on his first day. “Dr. Steve Caritis was the chief resident at the time. He walked in the room, handed out our keys, beepers, and schedules and said ‘see you later’. I looked down at the schedule, and saw I was already on-call. We worked 105-108 hours per week. Nowadays that would never happen,” he said.

During Dr. Edelstone’s residency, Drs. Terry Hayashi and Donald Hutchinson became his mentors. “They were very quiet and humble. They both were internationally renowned but you would never know it when you talked to them. I’ve tried to emulate them in my career,” he said. Dr. Edelstone was also the first Maternal-Fetal Medicine fellow trained under Dr. Caritis and Dr. Eberhard Mueller-Heubach.

Dr. Edelstone completed a fellowship at University of California at San Francisco but returned to Magee because of the research opportunities and support. As the research landscape changed, Dr. Edelstone started focusing on education. Eventually, he was in charge of the first two years of curriculum at the University of Pittsburgh School of Medicine.

His goal was to make students think. “I always asked: ‘If the electricity goes out, I can still take care of patients. Can you?’ These days, there is too much emphasis on electronics telling doctors what to do. It makes them think less which leads to mistakes,” Dr. Edelstone explained.

His words stayed with his students and residents. During an alumni event a few years ago, Dr. Edelstone overheard former OBGYN residents mention that in clinical situations they ask themselves ‘W2D2’. “I asked them what that term meant. And they were shocked I hadn’t heard it before. They told me many former residents use that term to ask ‘What would Dan do?’ If I can get them to think and always have a reason for what they do, I would be happy to be known for that,” he said.

Dr. Edelstone also played a role in increasing Magee alumni engagement. “I helped with resurrecting the Alumni Day program. I think it is very important to
Infertility is one side effect of cancer treatment that is often overlooked but something that could greatly impact a patient’s quality of life. A program at Magee is pioneering new fertility options for cancer patients.

The Fertility Preservation Program in Pittsburgh (FPP) is a multidisciplinary group including clinicians and researchers from Magee-Womens Research Institute, Magee-Womens Hospital of UPMC, Children’s Hospital of UPMC, and the University of Pittsburgh Cancer Institute. Most institutes offer egg, sperm, or embryo freezing, but the FPP is one of the few programs in the nation that addresses the fertility of adult men and women, as well as pre-pubescent boys and girls in the context of cancer. Kyle Orwig, PhD, director of the FPP, explained why the program is unique, “We provide the most comprehensive menu of fertility preservation options available anywhere in the country.”

The FPP started in 2010 when Orwig and his team established two experimental protocols, one for freezing testicular tissue for boys and another for freezing ovarian tissue for girls before starting any kind of cancer treatment. “We were providing an option for patients who before had no options. There are established standard of care methods for adults, but boys and girls had no options because they are not producing mature eggs and sperm,” Orwig said.

The program was also started to improve communication between patients, their doctors, and the fertility experts. “It’s very important to communicate to patients and physicians that we have these options available and accessible. You don’t have to be an expert in fertility. All you have to do is know our contact information and we can work together to counsel the patients about their individual fertility risks and fertility preservation treatment options,” Orwig explained.

A World Leader in Male Fertility Research

The Orwig Research Group is actively developing stem cell therapies to restore sperm production and fertility in males. “Pre-pubescent boys aren’t making sperm, but they do have the stem cells in their testes that are ready to start producing sperm at puberty. We take a biopsy of testicular tissue that contains stem cells before cancer treatment is initiated and freeze the sample for future use. We are working hard in the laboratory to optimize the technology for transplanting those stem cells back into the testes to restore sperm production,” Orwig said. His lab is also working on increasing the number of stem cells in culture so there will be more robust sperm production after transplant.

FPP researchers also work on tissue-based research. Rather than dispersing the tissue into cells that they transplant, they can leave the tissue intact and get that tissue to mature to produce sperm. “We are testing whether the immature tissue collected at biopsy can be grafted back into the patient and matured to produce sperm. We also may be able to take that intact tissue and put it in a petri dish and get it to mature there,” Orwig explained. These methods won’t restore fertility but they may create
sperm that can then be taken to an IVF clinic and used to fertilize eggs.

As a leader in this field, the program receives a lot of national and international interest. “There are very few places that do testicular tissue freezing, so we have families that travel from all over the world to pursue experimental fertility preservation options available in Pittsburgh. We are really proud of that,” Orwig said. However, it can be difficult for families to travel with a sick child so the FPP has also established cooperating recruitment sites around the country and abroad.

Recruitment sites are located all over the U.S. and there is even a location in Beer Sheva, Israel. “Our recruitment bases have substantially expanded which means our number of patients has really increased. Since starting the program in 2010, the number of patients who pursue fertility preservation in Pittsburgh has increased by more than 250%, including both the experimental and standard of care,” Orwig said.

**Female Fertility Research**

The approach to women’s fertility research is different because women are born with a finite number of eggs. Orwig explained, “For women, we don’t think about regenerating eggs, we are focused on protecting the eggs that are already there.”

One way is through protective agents. Dr. Jessica Berger, a gynecologic oncologist at Magee-Womens Hospital of UPMC and a 2014 Magee fellow, worked with Orwig for her thesis project. They investigated whether certain protective agents, like Lupron, can mitigate the effects of chemotherapy on the eggs and ovaries of mice when they are administered concurrently with treatment. While there has been success in trials in the past, their study found that the cancer treatment caused a greater than 90% loss of eggs in the ovary. Dr. Berger explained, “We have a lot of work to do in understanding how the ovary works, how chemotherapy damages the ovary, and how we can protect it.” Orwig also commented, “Since we have had some success in the past with certain drugs, what we hope this study will help us to understand is the mechanisms of egg loss, so we can tailor specific protective agents for specific chemotherapies.” Orwig also emphasized that if a protective agent could protect the eggs and ovaries, the next step would be ensuring that the agent is not also protecting the cancer cells.

With ovarian tissue freezing, there is the possibility of transplanting the tissue back in the body right where the ovary used to be. “This approach works and there have been about 100 babies born worldwide from ovarian tissue transplantation,” Orwig said. This approach would not be safe if there is concern that the ovarian tissue is contaminated with cancer cells.

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During the Society for Maternal-Fetal Medicine annual meeting in Las Vegas, Magee alumni, residents, fellows, and faculty members gathered at an alumni reception.
Resident Alumni Spotlight

give back and stay connected. Our residency allowed us to do what we loved for 30 or 40 years. Our livelihood depended on our Magee training. I keep in touch with a lot of former residents and I think the alumni are feeling more connected,” he explained.

During his time at Magee, Dr. Edelstone fell in love with and married Susan, a prenatal monitoring unit nurse he worked with for many years. After 22 years of marriage, Susan sadly passed away from breast cancer in 2013. To honor her memory, Dr. Edelstone established The Susan Bruce Edelstone Obstetrical Nurse Education Endowed Fund to support educational initiatives for Magee obstetrical nurses.

During the plaque ceremony, Dr. Edelstone was delivering a few remarks when he was interrupted multiple times by a loudspeaker alert for labor and delivery. “We all laughed and said that Susan must be doing this. It was a nice ceremony and I was happy we could acknowledge her in this way,” Dr. Edelstone said.

Dr. Edelstone estimates that he has attended more than 7,000 deliveries during his career. On June 30, 2011, he performed his last delivery at Magee which was almost 39 years to the day of his first Magee delivery. Today, he works three days a week at UPMC Mercy doing consultations and administrative duties. In 2015, Dr. Edelstone married Dodi Walker Gross, a retired attorney, who encouraged his newfound interest in golfing. He plans to retire at the end of August and is looking forward to spending time with Dodi, splitting their time between Pittsburgh, Florida, and New York City.

Dr. Edelstone will always have a special place in his heart for Magee. “I really enjoyed my time there. It was one of the most important things I ever did. I met Susan there, my daughter and grandchildren were born there. There are just so many connections. If I had to do it all over again, I’d do it in a heartbeat.”

Fertility Preservation Program

A safer option might be to isolate eggs from the tissue and mature them in a petri dish where they can be fertilized in the IVF laboratory. This approach is in earlier stages of development than ovarian tissue transplantation, but important progress has been reported by Teresa Woodruff, PhD, the founder of the Oncofertility Consortium, and others.

Understanding the Patient’s Decision Process

Focused on clinical research, Dr. Berger is particularly interested in understanding patients’ decision making process and attitudes towards fertility preservation before and after cancer treatment. “When I talk with many of my patients, I bring up the topic of fertility and they can’t even hear it. Understandably, they are so scared about the cancer diagnosis that they can’t focus on the fertility effects. Then for some, after they complete their treatments, they regret not taking advantage of opportunities they had prior to treatment,” Dr. Berger explained.

Dr. Berger is in the process of creating a survey for female cancer patients before and after their treatment to better grasp how their opinions regarding fertility preservation change. “It would be a way for us to understand how we can improve a patient’s experience and satisfaction with their decisions from the beginning. To be able to have data to say, ‘this percentage of patients had regrets regarding their fertility decisions after cancer treatment or this many patients had regret because their cancer came back’, that would be beneficial to patients and physicians,” Dr. Berger said.

A Comprehensive Program

Although a majority of the research is focused on infertility with cancer patients, the FPP has a wide-range of services for all types of patients. Orwig credits the patients themselves with propelling discovery further. “The clinic will meet a new patient with a condition that we’ve never seen before and that case then becomes our next research project. We take new fertility challenges back to the laboratory and then translate our answers back to the clinic. Patients inspire our passion for fertility research and they are our most important collaborators in the development of new reproductive therapies,” he said.

If you would like to refer a patient to the Fertility Preservation Program or would like to consult with Dr. Orwig and his colleagues, please call 412-641-7475 or email fertilitypreservation@upmc.edu. More information on the program can be found at fertilitypreservationpittsburgh.org.
A Look Back

Reflecting on the past shows us just how far medical technologies and practices have progressed. Periodically, we will share photographs from past Magee residency classes and old photos from Magee-Womens Hospital of UPMC.

If you have any archived photos you would like to share, please contact Colleen Gaughan at 412-641-8978 or cgaughan@magee.edu.

In 1938, Magee was the first to test the 3,000 volt germ-killing ultraviolet ray lamp, which scientists hoped would achieve complete sterility in operating rooms.
Three ways to give. 
So many lives to touch.

Making a planned gift to Magee, whether for research, patient care, or education, is easy. Plus this is a gift that costs you nothing today, and creates a meaningful legacy that touches the lives of so many others in the future.

1. **Bequest** - You can remember Magee through your will.

2. **IRA** - Name Magee as a beneficiary on your retirement account.

3. **Charitable Remainder Trust** - Create an income stream for your life while also making a gift.

For more information about making a meaningful gift to Magee, please contact Colleen Gaughan at cgaughan@magee.edu or 412-641-8978.
Upcoming Events

SGO Annual Meeting
Tuesday, March 14, 2017
Public House Restaurant
199 Fleet St., National Harbor, MD
6:30 to 8:30 p.m.
RSVP to Denise Wickline at dwickline@magee.edu

ACOG Annual Meeting
Saturday, May 6, 2017
Marina Kitchen
333 W Harbor Dr., San Diego, CA
6:30 to 9 p.m.
RSVP by May 2 to Denise Wickline at dwickline@magee.edu

Research Day in Reproductive Biology and Women’s Health
Friday, May 19, 2017
Magee-Womens Hospital of UPMC
Dr. Donald C. Hutchinson and T. Terry Hayashi Auditorium
7:30 a.m. to 4:30 p.m.

6th Annual Fly Fishing Classic
September 14-15, 2017
Homewaters Club, Spruce Creek, PA
Proceeds benefit the Women’s Cancer Research Center

Visit mageewomens.org/events for more info.

12th Annual Savor Pittsburgh
Thursday, September 28, 2017
Petersen Events Center, Pittsburgh, PA
6 p.m. VIP, 6:30 p.m. General Admission
Proceeds benefit women’s and infants’ health research
www.savorpgh.com

AUGS Annual Meeting
Save the Date!
Wednesday, October 4, 2017
Providence, RI (more details closer to the event)

Alumni Reception
Thursday, October 19, 2017
The Pittsburgh Golf Club
4:30 to 6:30 p.m.
RSVP by October 12 to Denise Wickline at dwickline@magee.edu

41st Annual Alumni Day
Friday, October 20, 2017
Magee-Womens Hospital of UPMC
7 a.m. to 2 p.m.

Join Our Email List
Help us keep you informed!
Please join our email list to stay up-to-date on the great things happening at Magee. It’s easy. Just email Colleen Gaughan at cgaughan@magee.edu.
Past and Present Magee Physicians Win AUGS Awards

Of 70 papers presented at the 2016 American Urogynecologic Society (AUGS) meeting, six papers received awards. Four of those six awards were affiliated with Magee-Womens Hospital of UPMC current faculty or graduates. The Magee winners are:

- Best Overall Paper – Dr. Pamela Moalli, MD, PhD, Associate Professor, Division of Urogynecology and Pelvic Reconstructive Surgery
- Best Resident/Fellow Paper – Tatiana Catanzarite, MD, University of California, San Diego (Principal Investigator - Marianna Alperin, Magee fellow graduate, 2008)
- Best Evaluation Testing Paper – Heidi Brown, MD, MAS, University of Wisconsin-Madison School of Medicine and Public Health (Magee residency graduate, 2010)
- Best Technology/Novel Therapies Paper – Katrina Knight, BS, University of Pittsburgh (Dr. Moalli graduate student)

Dr. Ted Lee Wins Fourth Surgical Video Award

Dr. Ted Lee, clinical associate professor and director of minimally invasive gynecologic surgery at Magee-Womens Hospital of UPMC, won the prestigious Golden Laparoscope Award at the 2016 American Association of Gynecologic Laparoscopists (AAGL) annual conference.

Dr. Christina Ramirez worked on the video with Dr. Lee and also won the award. Their winning video was titled “Laparoscopic Management of C-sec scar ectopic pregnancy.” Dr. Lee and his fellows also won the award in 2015, 2013, and 2012, which is the most wins ever for an individual or institute.

Physicians Awarded for Excellence in Teaching

Dr. Carey Andrew-Jaja and Dr. Margaret Watt-Morse were two of four faculty members to receive the University of Pittsburgh School of Medicine Award for Excellence in Clinical Precepting. This award recognizes clinical preceptors who consistently provide outstanding clinical instruction in a community setting for University of Pittsburgh School of Medicine medical students. The awards were presented at the 22nd Annual Curriculum Colloquium which was held on November 29, 2016.
Sneak Peek at What’s Inside

• See more archived photos on page 8.
• Don’t miss one of our upcoming alumni events. Details on page 10.
• What would Dan do? Learn more on page 3.