

Penn Medicine **FALL 2019**

Director's Message





Penn Medicine's Gynecologic Oncology Team

September is Ovarian Cancer Awareness Month: a time to reflect on our accomplishments over the past year, and acknowledge the work that still needs to be done. The Ovarian Cancer Research Center (OCRC), in collaboration with Penn Medicine's Abramson Cancer Center, remains dedicated to providing hope to women with gynecologic cancers around the world by driving progress for diagnosis, treatment, and care.

We are on the cusp of tangible breakthroughs. Our teams are hard at work, advancing studies that inform our understanding of gynecologic cancers and developing new strategies for targeted treatments. As we expand our knowledge of the origins and evolution of gynecologic cancers, we are better equipped to treat them as they develop and change.

In this issue of the OCRC Newsletter, you will read about Penn's SPORE grant for gynecologic oncology, the inaugural Ovarian Cancer Translational Center of Excellence (TCE) award, an interview with the

OCRC's pathologist. Dr. Lauren Schwartz, and much more. Thank you for taking the time to read about our latest advances. The OCRC is grateful to have such an engaged and passionate community of supporters.

Yours.

Ronny Drapkin, MD, PhD Franklin Payne Associate Professor of Pathology in Obstetrics & Gynecology Director, Penn Ovarian Cancer Research Center



In April, the OCRC launched its first-ever matching gift campaign to help raise support for gynecologic oncology research at Penn Medicine. The response from our community was overwhelming, and together we raised over \$80,000!

With the decline in government research funding, individual philanthropy is helping to narrow the gap for cancer research. Unrestricted funding for the OCRC allows Dr. Ronny Drapkin to designate support and assistance for the most cutting-edge ideas that might otherwise go unfunded. With each new and innovative study, we are able to move the needle that much closer to a cure.

Thank you to all those who answered the call for support. We are grateful for the generosity we received and excited for the work that will be funded thanks to our matching gift campaign donors!



An Interview with Dr. Lauren Schwartz

Tell us about your role as the Assistant Professor of Clinical Pathology and Laboratory Medicine.

I am the pathologist for the Ovarian Cancer Research Center. In my role, I examine tissue samples under the microscope and help inform researchers and clinicians as to the diagnoses and classification of tumors. I also play an important role in the Ovarian Cancer Translational Center of Excellence (TCE), through the Tumor BioTrust Collection as well as the Legacy Tissue Program. All gynecologic tumor samples ultimately come across the desk of my colleagues and I for analysis.

What does an average day look like for you?

The typical day for a pathologist can mean many things! When I am on clinical services, I examine slides of tumors that have been taken from the operating room to help my clinical colleagues diagnose and understand the tumors they are treating. When I am not on clinical service, I spend my time doing administrative work for quality and patient safety, conducting research, and teaching pathology to our residents and fellows.

How would you explain the broader significance of your work to a layperson?

Even though pathologists spend the majority of their time behind the scenes, we play a critical role in diagnosis, treatment, and clinical care. Without fully understanding the complexities of each unique tumor, oncologists are not able to personalize targeted therapies for their patients. Pathologists are critical members of the patient care team and provide details that inform each patient's care plan.

What led you to a career in Pathology and Laboratory Medicine?

After completing medical school, I worked closely with a pathologist at New York University (NYU) who helped me learn more about the field. I fell in love with the field and its multi-faceted nature. Early in my residency at Penn, I knew GYN pathology was the sub-specialty for me so I pursued further training at Johns Hopkins University. I returned to Penn because I saw the opportunity to help build the gynecologic pathology program and really make a difference.

How does your work impact the Ovarian Cancer Research Center (OCRC)?

My work informs projects throughout the OCRC and ensures that the investigators have the information needed to complete their research. I also help to facilitate teaching to trainees throughout the OCRC to educate them about the role of pathology in their work. I am a resource for the OCRC and provide information that allows them to develop future treatments and advance our understanding of gynecologic cancers.

What accomplishments are you most proud of?

Knowing that I can make a difference in the lives of patients! My colleagues and I work hard every day to give patients the best possible outcomes and live longer and healthier lives. Five years ago, I was diagnosed with breast cancer. Understanding the patient experience has really shaped who I am as a clinician. I am now driven to give back and to help make a difference in the lives of other cancer patients.

What is your hope for the future of ovarian cancer research?

A cure! We have come a long way with high-grade serous carcinoma, with BRCA-related cancers, and risk reduction, but I hope to also see the development of targeted therapies for other, less-treatable malignancies as well. We still have a lot of work to do to accomplish this.

When you are not in the lab or clinic, how do you spend your time?

My husband and I spend a lot of time with our daughter, she is almost seven! As a family, we like to take interesting trips. Recently we traveled to Denmark and Paris. I am passionate about my work, but my family is also incredibly important to me and we try to spend as much time together as possible.





Ovarian Cancer TCE's Inaugural Award: Innovations in Imaging, Surgery, and Treatment of Ovarian Cancer

Anatoliy V. Popov, PhD, Associate Professor in the Department of Radiology, is the recipient of the inaugural **Ovarian Cancer Translational Center of Excellence (TCE) Innovator Award**. Building on existing research and treatments designed for breast cancer, Dr. Popov's study uses similarities in the metabolic pattern of breast and ovarian cancers. Focusing on high-grade serous ovarian cancer (HGSOC), Dr. Popov's lab is using a metabolic enzyme, PC-PLC, which is much higher in tumor cells, to develop probes that will help detect, monitor, and treat HGSOCs. To achieve these goals, he is using resources in the OCRC's BioTrust Collection to examine whether approaches that have been used successfully to treat breast cancer, can also treat ovarian cancer.



Congratulations Dr. Anatoliy V. Popou!



Collaboration Driving Research

The University of Pennsylvania recently teamed up with colleagues at Johns Hopkins University and the Wistar Institute, to secure a multi-year grant from the National Institutes of Health to study ovarian cancer. This grant, called a **S**pecialized **P**rogram of **R**esearch **E**xcellence (SPORE), brings together a team of researchers, pathologists, physicians and epidemiologists focused on eradicating ovarian cancer through the development of new prevention and early detection strategies and innovative new treatment modalities for our patients. The SPORE is co-led by Drs. le-Ming Shih (Hopkins) and Ronny Drapkin (Penn).

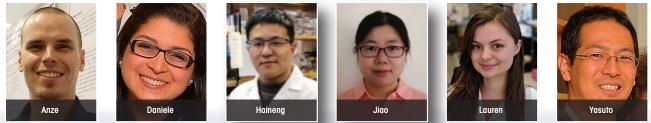
This highly translational program contains four research projects, three core resources, the Career Enhancement Program, and the Developmental Research Program. The objective of **Project 1** is to determine whether detection of tumor cell DNA from cervical (Pap) smears, endometrial cavity brushing, and/or circulating tumor DNA (ctDNA) can identify early stage cancer, or its precursor lesion. The goal of **Project 2** and **Project 3** is to provide critical preclinical and early clinical data for developing more effective combined therapies to treat advanced and recurrent diseases. Project 2 will optimize synthetic lethality in HGSOC by combining an ATR inhibitor and PARP inhibitor. Project 3 proposes to apply BET inhibitors for overcoming platinum resistance.

Project 4 aims to determine whether inhibition of Spleen Tyrosine Kinase (SYK) activity sensitizes ovarian cancer cells to the cytotoxic effect of paclitaxel, and to determine if SYK inhibitor represents a promising new agent to be combined with (weekly) paclitaxel for the treatment of advanced ovarian cancer.

Drs. Fiona Simpkins, Rugang Zhang (Wistar), **Lainie Martin**, and **Robert Burger** of Penn are leading many of the SPORE projects and are committed to advancing new treatment strategies for our patients. We expect that the SPORE will be a collaborative hub for years to come.



A **SHOUT OUT** to Our Trainees!



Anze Smole, PhD, a postdoctoral research fellow in the Powell lab, received the Meritorious Abstract Travel Award to attend the ASGCT 22nd Annual Meeting in the spring of 2019. He also received honorable mention with his contributions at the CAR-T and the Rise of Cellicon Valley Conference.

Daniele Chaves-Moreira, PhD, a postdoctoral fellow in the Drapkin lab, received a Scholar-in-Training Award from the American Association for Cancer Research (AACR) to attend the AACR Advances in Ovarian Cancer Research Special Conference in Atlanta this September.

Haineng Xu, PhD, a postdoctoral research fellow in the Simpkins lab, was recently awarded a grant from the Ovarian Cancer Research Alliance.

Jiao Yuan, PhD, a postdoctoral fellow in the Zhang lab, received the Joe Touchstone award from the Center for Research on Reproduction and Women's Health (CRRWH) at the Perelman School of Medicine.

Lauren Shaw, PhD, a PhD student in the Pharmacology Graduate Group in the Powell Lab, recently received a Pharmacology T32 Training Grant.

Yasuto Kinose, MD, PhD, a visiting Assistant Professor from Japan working with Drs. Drapkin and Simpkins, received an AACR Scholar-in-Training Award and an Oral Presentation for the upcoming AACR ovarian cancer meeting in Atlanta.

Save the Date

2019 Together in TEAL® Run/Walk with the National Ovarian Cancer Coalition (NOCC) September 14th at 8:30 am in Fairmount Park For more information, visit www.ovarian.org

2019 No Evidence of Disease (NED) Concert

September 14th at World Café Live at 6:30 pm For more information, visit events.ovarian.org/ned *Proceeds will help support the OCRC and the Clinical Research Unit (CRU) at Penn Medicine

OvaryAct Gala

September 20th at 7:00 pm at Beast Street Station For more information, visit sandyovarian.org



215-573-9476 • rdrapkin@pennmedicine.upenn.edu

Please consider becoming a philanthropic partner!

To support Penn's Ovarian Cancer Research Center, please contact Maddie Hansen at 215-898-9174 or madd@upenn.edu

givingpages.upenn.edu/OCRC



Twitter.com/Penn_OCRC

If you wish to be removed from future fundraising appeals, call us at (215) 898-0578, write us at Penn Medicine, 3535 Market Street, Suite 750, Philadelphia, PA 19104, or reach us via email at uphsgift@upenn.edu.



4