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UCSF Department of Radiation Oncology

The UCSF RadOnc Beam

News & Ideas from the UCSF Radiation Oncology Team

This is an important moment to come together as a department, to acknowledge the anguish and social injustice in our nation.

Diversity & Inclusion

Lauren Boreta & Lindsay Williams

Diversity Committee Co-Chairs

Following the uprising brought on by the death of George Floyd, the Department held an all-inclusive dialogue, sponsored by our Diversity Committee. It was an important moment to come together as a department, to acknowledge the anguish and social injustice in our nation, and to create a place where we could learn and provide further direction for our group. The conversation was emotional, and we recognized the leadership and vulnerability in the sharing of stories and experiences. It was clear that we all have different backgrounds and experiences through which we view these times, and that we desire to further our awareness and action to address racism and social injustice.

Led by the Rad Onc Black, Indigenous, and People of Color (BIPOC) Interest Group, we are working on changes to

- Address conscious and unconscious racism against Black staff, faculty, patients, and trainees.
- Educate and train non-BIPOC staff, faculty and trainees about micro/macroaggressions and how to prevent them.
- Ensure Black patients are treated equally and fairly within the department.
- Guarantee fair outreach, interviewing, and hiring practices for future Black staff .and faculty, and commit to ongoing holistic review of residency applicants.

Diversity and Inclusion

The Rad Onc Diversity Committee will be working to implement change, and look forward to 100% engagement from department members. The Rad Onc BIPOC Interest Group will also team up with the efforts being made by the Cancer Center and Social Work to foster a positive environment for minority patients, staff, and faculty. Both groups are excited about the work being done and the inclusive, favorable changes it will bring to UCSF Radiation Oncology.

Additionally, UCSF Office of Diversity has compiled a list of resources for engaging in anti-racism and self-care tips for our BIPOC community, which can be accessed here: https://diversity.ucsf.edu/addressing-discrimination. We would also like to promote Diversity, Equity and Inclusion (DEI) training, available through the Office of Diversity and Outreach. Please feel free to reach out to Lauren and Lindsay for more information.

Finally, the month of June was LGBTQ Pride in San Francisco, which was markedly different than years past due to the ongoing COVID-19 pandemic. This year was the 50th anniversary of the Pride march in San Francisco, with significant celebrations that were sadly cancelled. We would like to take this opportunity to celebrate our LGBTQIA+ colleagues and patients and appreciate their resilience while recognizing the ongoing struggles. We invite you to learn more about the history of Pride, the Stonewall Riots, and the legacy of the Women and Trans Women of Color who started the movement by visiting StonewallForever.org.

Fostering a positive environment for minority patients, staff, and faculty

Covid-19 Response

Introduction

Catherine C. Park, M.D.
Professor and Chair
Department of Radiation Oncology

The Corona virus pandemic has been difficult and heartbreaking for us all. Yet, we have met our challenges one after another as a team and prepared to best treat our patients while maintaining safety for our physicians and staff.

We have embraced telehealth, worked with our leaders to develop best safety practices and are navigating new waters with remote working, schooling and physical distancing. I'm incredibly proud of how our team has come together to respond rapidly and effectively to our new circumstances.

Safety & Recovery

Recovery

Nina Pitts
Radiation Oncology Admin

Throughout the summer, we continue our dual focus on COVID 19 related safety practies and recovery.

We have done an AMAZING job at quickly returning to our early March pre-COVID volumes. Thanks to all of our providers and teams--this was an incredible effort from all. By doing this we have provided much needed access to our patients and we have also helped in supporting UCSF's work around financial recovery.

While we to work on bringing back our patients it continues to be important to look at how we level load our services. The RTT Chiefs along with Emily Hirata are reviewing the site machine schedules and will reach out to services to discuss site or machine options as needed. Please reach out to your Site Director or Chief RTT with any questions!

Safety

Safety is one of our essential priorities. This month, UCSF introduced the Caring is Wearing mask campaign. This campaign highlights how critical it is for all of us to wear masks consistently and correctly. Masks are our best form of protection, both for ourselves and for others.

Break Area

It's critical that we limit occupancy per the signs outside of all are enclosed rooms. It's best practice to stagger breaks and lunches and not eat with others in enclosed areas. Site managers are there to assist if you're finding this a challenge!

Update on Face Shields

We are consistently updating PPE policies with the institution as we recognize specific areas of concern.

In July we also rolled out new recommendations for face shields in ambulatory care settings. The recommended use is for staff, faculty and trainees who have:

- **Direct patient contact for 15 mins or more**
- **Patients or caregivers cannot consistently or effectively mask**
- **Patients or caregivers have not had pre-service COVID testing (currently testing is only for our prepare patients-anesthesia and OR based HDR)- Please ask your managers if you have any questions.**

Lastly, if you are able and on site, please join one of our daily huddles. They are a great place for updates and questions.

- **PCMB every day 9am at the nursing station**
- **Mt Zion every day at 8:30am in front of Vernon's office**
- **Parnassus every day at 9am the huddle board**

Covid-19 Response

Telehealth & Testing

Steve Braunstein, M.D., Ph.D.
Associate Professor
Department of Radiation Oncology

According to a recent survey from the American Psychological Association, three-quarters of clinicians are doing only teletherapy, and another 16 percent are doing a combination of remote and in-person sessions.

—New York Times

Since the beginning of the pandemic, the safety of our patients, staff, and trainees has remained the top priority. Screening, social distancing, proper use of hygiene and personal protective equipment, and testing are the operational pillars employed to uphold our commitment to safety, while allowing patients continued access to needed care.

Telehealth offers the opportunity for patients to connect with our providers remotely over video from home. While Telehealth has been available at UCSF for a few years, it was previously used in a limited fashion. The pandemic has commenced widespread implementation of Telehealth across practices, necessitating new workflows, and the success of the rapid and evolving deployment of Telehealth is due in large part to significant efforts by our entire team of administrative staff and providers. Telehealth visits can reduce the traffic of patients in the practice, offer additional convenience of limiting patient travel, continue the educational mission of our practice, and be an effective means to provide high-quality care.

Of course, Telehealth is not appropriate for all situations and is not sufficient for all in-person consultations and assessments. Moreover, as a procedural-based specialty, Telehealth cannot replace all components of the care pathway within Radiation Oncology. Patients undergoing radiotherapy still must be physically on-site to received radiation treatments, and providers and staff must routinely be on site to directly oversee the radiation treatments and associated on-treatment care visits. We have improved integration of Telehealth into our practice, and the feedback from patients has been largely positive. As we emerge from the pandemic in the months and years to come, it is anticipated that the impact of Telehealth will remain a major component of our practices, giving patients and their families more routine access to our world class health care teams at UCSF from wherever they may reside.

Policies and procedures around testing continue to evolve on a weekly basis. While a great focus of discussion, testing is but one pillar of our commitment to safety and cannot replace other fundamental protective measures. Screening, social distancing, and proper use of hygiene and personal protective equipment remain the most effective means to reduce the possibility of exposure and transmission of COVID-19. Over the past several months, limitations on availability and turnaround time for testing has improved, such that we are now able to implement routine testing for patients undergoing aerosolizing procedures including anesthesia, endoscopy, and tracheostomy care, both in the operating rooms and in our department. We engage in routine discussions with the UCSF team of epidemiologists, infectious disease specialists and hospital leadership as we evaluate the indications and utility of testing in our department.

The hospital system has created infrastructure and resources for screening which currently include the Respiratory Screening Clinic (RSC) and Prepare Clinics, with plans to further expand accessibility and reporting for testing. While all staff and patients are subject to screening to enter the clinics, staff should stay home if feeling ill and contact occupational health for further instruction. In addition, providers should have a low threshold to send a patient for testing through the RSC, irrespectively of standard screening, if patients report new or evolving COVID-like symptoms.

Keeping the Team Together

Safety & Recovery

Emily Hirata, Ph.D.
Associate Professor
Division of Physics
Department of Radiation Oncology

Close teamwork is our DNA at UCSF.

We've explored creative ways to keep close during the COVID crisis.

1 Daily Physics team huddle at 10am

A Quick 10-15 minute sync up with all physics to check in with physicists-on site, physicists remote, and provide an opportunity for people to update the team on anything that happened or is going to happen. For example, if the physicist on-site is encountering machine issues, it helps to get input from others to facilitate troubleshooting. Also a good way to loop in the afternoon QA team on any additional measurements needed or whether there are unusual circumstances to be aware of. And a wonderful way to send each other cheerful "good mornings!"

2 Instant messaging over Zoom chat

Similar to Slack, we have Physics chat groups including an All-hands Physics chat group, where we can quickly share information with each other without email. This is nice because it's asynchronous conversation, similar to text messaging. Has also been helpful with more urgent troubleshooting needs.

3 Physics Wiki page

Manju Sharma has done a wonderful job of setting up a UCSF-hosted wiki page for Physics, where we post huddle notes, quick troubleshooting tips and tricks, Physics procedures for reference, lists of clinical projects and an informal Blog. The wiki is password-protected. Users can be informed or emailed when wiki updates are made if they turn on the notification feature.

4 Coffee break & Friday Happy-hours

For the first few weeks, we did not know how long COVID would last, so Jess Scholey, Adam Cunha, and others had a great idea of having a recurring "Coffee break" and weekly "Happy Hours." At the time, it was a really nice opportunity to informally connect and take a break with each other.

5 Shared list of Clinical projects

With many of us working remotely, it's been nice to have a shared list of projects on the wiki. If people are interested in getting involved in a project or initiative, they add their names and the group will get together to work on the projects. It's been a great way for the team to have a pulse on what is going on at all three sites—and to get involved in projects that they find interesting. It's been a great collaboration tool.

6 Tag over Zoom chat

This is a week-long game that Sara St James introduced in June. One person starts as being "It" and posts something about themselves (ie. something they like, they have done, etc.) Anyone in the group who has this in common can then become IT by being the first person to respond with "Me too!" The second person is now "It" and they post something about themselves, and so on.
I found this to be so interesting to learn things about each other (ie. what concerts we've been to, where we've gone hiking/camping, what foods we love to eat, our hobbies, etc).
I think we're set to have a second round in September!

Research

Paola Betancur, Ph.D.

Assistant Professor

Department of Radiation Oncology

Dr. Betancur's long-term research goal is to understand the mechanisms encoded in the DNA by which cancerous cells avoid being detected and destroyed by the host's immune system. Toward this goal, her lab examines the interactions between epigenetic modifiers, transcription factors and the genomic enhancers of target genes that in response to inflammation abnormally activate the immune escape program within tumor or damaged cells during aging, after radiation and in response to infectious diseases.

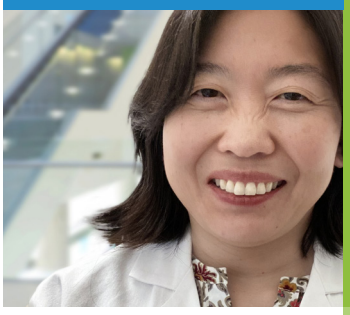
This information will be crucial to develop tools to deactivate this program in cancer and other diseases to prevent damaged cells from escaping immunosurveillance. In addition, understanding the immune escape program, will point at effective immunotherapies that can be combined with radiation therapy to engage the immune system and improve the treatment of cancer.

Prior to Joining UCSF as Faculty, Dr. Betancur studied the transcriptional regulation of CD47 (an immune evasion cell-surface signal present in all cells) that provides a "don't eat me" signal to macrophages, and other immune cells, thus protecting cells from being targeted and cleared by the immune system. Damaged cells when ready to be cleared by macrophages downregulate CD47 transcript and protein expression. However, most cancer cells fail to do so. Through computational genomic analyses, experimental isolation and biochemical characterization of enhancers and transcription factors complexes, Dr. Betancur exposed for the first time the complexity of CD47 gene regulation, which is remarked across different cancer types by the activation of distinct enhancers or super-enhancers (SEs) that are inactive in healthy counterparts. Moreover, she found that CD47 expression is increased by pro-inflammatory signals and blocking these signals in combination with a CD47 blocking antibody treatment, potentiates immune clearance of breast cancer cells.

> Understanding the immune escape program, will point at effective immunotherapies that can be combined with radiation therapy to engage the immune system and improve the treatment of cancer.

Works In Progress Series

Sue Yom, Ph.D.
Professor
Departments of Radiation Oncology & Otolaryngology-Head and Neck Surgery



To stimulate thinking and collaboration around research, and to foster the development of young investigators, the Department has established a Works in Progress series. While lectures by established speakers are an important part of the intellectual and educational experience at UCSF, the idea of the WIP workshops is to allow less developed concepts to be put forward in a collegial and supportive environment. In this setting, residents, fellows, and junior and senior faculty are able to test-drive their developing ideas, get advice and input from other members in the department, and explore collaborations with others who may have overlapping interests or expertise in the topics. Also, the series is educational, providing a sampling of the wide variety of research interests across the department and giving attendees some initial background in these diverse areas within radiation oncology.

We launched the series with two initial workshops on February 24-25, 2020 when Dr. Sue Yom and Dr. Jason Chan described their early developing concepts for microbiome and MRI research projects studying head and neck cancer patients. The initial feedback was very positive with many participants noting that they enjoyed the interactivity and free-flowing discussion, as well as the less formal structure of the sessions. Subsequently, during the coronavirus outbreak, the WIPs went on a short hold due to the need to establish effective means of social distancing. However, the series has now started in earnest taking advantage of COVID-era remote videoconferencing technology, with a resulting excellent turnout that has typically been at several dozen people per session.

A general schedule has now been established with WIPs taking place approximately every second Thursday at noon and every fourth Monday at 8 am. WIP presentations are encouraged from residents, postdoctoral scholars, junior faculty, and senior faculty - across all major sectors of the department specifically including the biology, clinical, and physics divisions. However, anyone who is interested in getting feedback on any kinds of research ideas is welcome to present— and anyone who wishes to take the opportunity is encouraged to contact Dr. Yom or Dr. Braunstein, who are co-coordinating the schedule with support from Elisa Zhang.

One of the positive aspects of attending the WIP sessions is to gain a greater appreciation for the scope of research taking place within the department. Some attendees mentioned that they felt in this time of coronavirus-enacted disconnection that the WIPs provide a chance to engage and remain aware of the continuing activity of the research community that exists within our department. Based on the positive feedback, the department has allocated support resources to support the WIP series. We hope for continued positive experiences using this forum as an interactive platform for education and exchange.

The following is a list of suggested assignments for dates to present with an eye to inclusivity of all faculty and trainees. If you aren't able to present on your date, please arrange a switch with someone else and then let Elisa Zhang know so that she can adjust the invitation.

Second Tuesday and Fourth Monday of each month

Sept 8 12-1pm
Dr. Joanna Yang

Sept 28 8-9am
Dr. Anthony Wong

Oct 15 12-1pm
Dr. Emily Hirata

Oct 26 8-9am
Dr. Emi Yoshida

Nov 10 12-1pm
Dr. Alexander Gottschalk

Nov 24 8-9am
Dr. Alexander Gottschalk

Dec 10 12-1pm
Dr. Gilmer Valdes

Dec 28 8-9am
Dr. William Chen

New Faculty

Dr. Katelyn Hasse, Ph.D., a recent graduate of our own medical physics residency program, joined our faculty on July 1st as an Assistant Professor of Clinical Radiation Oncology. Dr. Hasse serves as a Medical Physicist in our department, with a primary worksite at the Mount Zion campus. She received her Ph.D. in Biomedical Physics from the University of California, Los Angeles before completing her medical physics residency in our department. Dr. Hasse has particular expertise in biomechanical modeling, deformable image registration, and functional avoidance radiotherapy.

Katelyn Hasse, Ph.D.

> I am grateful and honored to join such a passionate and brilliant team.
>
> — Katelyn Hasse, PhD

Dr. Hasse's educational background

- **Medical Physics Residency, University of California, San Francisco, Department of Radiation Oncology (2018 - 2020)**
- **Ph.D., Biomedical Physics, University of California, Los Angeles (2018)**
- **B.S., Honors Nuclear Engineering, University of Tennessee, Knoxville (2013)**

We want to showcase You!

If your team is doing something newsworthy, we want to know. To share your success in this newsletter, contact Mekhail Anwar at mekhail.anwar@ucsf.edu