



## Northern California Chapter of the American Association of Physicists in Medicine The Young Investigator's Symposium

**Friday, May 17, 2024**

**at UC Davis Student Community Center (Room D)**

*University of California at Davis, Biomedical Engineering and School of Veterinary Medicine*

<b>Sign-In &amp; Registration &amp; Speaker ready:</b>	<b>11AM</b>
<b>Meet &amp; Mingle at Lunch:</b>	<b>11:00-NOON</b>
<b>Key Note Address:</b>	<b>1-2 PM</b>
<b>Speakers:</b>	<b>2-5PM</b>
<b>Tour of BME Facility &amp; Vet School:</b>	<b>To Follow Symposium</b>

This FREE symposium is for presentations by Students, Postdocs, and Residents in Radiological Sciences, Radiation Oncology, & Biomedical Engineering. Participating Institutions Include: Lawrence Berkeley National Laboratory, Stanford University, UC Berkeley, UC Davis, UC Merced, and UC San Francisco

- **AWARDS FOR THE TOP PRESENTATIONS IN EACH CATEGORY: RESIDENTS, POST DOCS, AND UG/GRAD STUDENTS**

**PLEASE CHECK THE SF AAPM WEBSITE FOR UPDATES: [HTTP://CHAPTER.AAPM.ORG/SFBA/](http://chapter.aapm.org/sfba/)**

Young Investigator Program Directors:

Amy Yu Shu-Jung Yu [amysyu@stanford.edu](mailto:amysyu@stanford.edu); Emilie Roncali [eroncali@ucdavis.edu](mailto:eroncali@ucdavis.edu); Sarah E Mckenney [semckenney@ucdavis.edu](mailto:semckenney@ucdavis.edu)

Northern Calif Chapter AAPM: President: John Ready, PhD, Treasurer: Olga Stafford, PhD

**DIRECTIONS TO UCD Student Community Center (SCC):**

*The Student Community Center (SCC), located in central campus, is home to dynamic student life centers and academic services at UC Davis.*

**From I-80 West (San Francisco)**

- Take I-80 East toward Sacramento.
- Take the CA-113 North exit toward Woodland.
- Take Exit for Hutchison Drive.
- Turn right onto Hutchison Drive.
- Turn left to access the Parking Structure or turn right to access VP Lot 40.

**PARKING:**

UC Davis visitor permits have gone mobile.

The free **AggiePark** app makes it easy to pay for parking at UC Davis right from your phone. Once you set up your account, simply select your parking zone, vehicle, pay for the day or hour, and go. It's smart, contactless payment in the palm of your hand! Please visit the following website to learn more about visitor parking rates and how to pay for parking with AggiePark.

See further directions and parking info here:

<https://oem.ucdavis.edu/venues/scc/contact>



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***The Young Investigator's Symposium***  
**Friday, May 17<sup>th</sup>, 2024**

**11:00 – 12:00 P.M.**    **Sign-In & Registration & Speaker ready & Meet & Mingle at Lunch**

**12:30 – 01:30 P.M.**    **Keynote Speech**  
**Dr. Michael S Kent, Professor, Department of Surgical & Radiological Sciences at UC Davis**  
**Radioimmunotherapy and modeling its use in dogs**

**02:00 – 4:00 P.M.**    **Talks from young Investigators:**

***Students:***

**Samantha T. Reyes (Stanford)**

**Tracking innate immune activation via a novel GPR84-targeted radiotracer in a murine model of multiple sclerosis**

**Alita Jesal D Almeida (UC Davis)**

**[11C]GR103545 PET to elucidate kappa opioid receptor changes under stress and social buffering in the titi monkey**

**Phoebe Ling (UC Berkeley)**

**Brachytherapy source position verification**

**Yile Fang (UC Merced)**

**Three-dimensional Focused X-ray Luminescence Tomography: In vivo Imaging of Mice with Xenografted Tumors**

**Oscar Henry Matousek (UC Berkeley)**

**Uncertainty Quantification of Near-Field Compton Image Reconstruction for <sup>225</sup>Ac Daughter Nuclei Using a Gaussian Process Prior**

***Residents:***

**Zi Yang (Stanford)**

**A Deep Learning-Driven Framework for Large Language Model-Assisted Automatic Target Volume Localization and Delineation in Spinal Metastases Stereotactic Body Radiotherapy**

**Payton Stone (UC Davis)**

**Variability in Catheter Localization in High-Dose-Rate Brachytherapy for Prostate Cancer with Transrectal Ultrasound Stepping Transverse and Twister Sagittal Volume Scanning**

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***Postdocs:***

**Kevin J. Chung (UC Davis)**

**Imaging the Molecular Permeability of the Blood-Brain Barrier with a Single Total-Body Dynamic PET Scan**

**Zahra Shokri Varniab (Stanford)**

**Image-Guided Glioblastoma Therapy with Dual-Enzyme Activated Theranostic Nanoparticles**

***SLAM competitions:***

**Kajetan Wysoczynski (UC Davis)**

**A Dosimetric Comparison of Y-90 Radioembolization, Stereotactic Body Radiation Therapy, Proton Beam Therapy, and HDR Brachytherapy for Treatment of Liver Cancer**

**Renesmee Chenting Kuo (Stanford)**

**Early detection and tracking of activated macrophages and microglia in a mouse model of multiple sclerosis using [18F]OP-801 PET imaging before and after a novel immunomodulatory drug**

**Lewei Zhao (Stanford)**

**A hybrid 4pi-proton arc therapy technique for the Treatment of Cancer**

**04:30 – 5:00 P.M. Award Ceremony**

**5:30 P.M. CMGI tour**

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