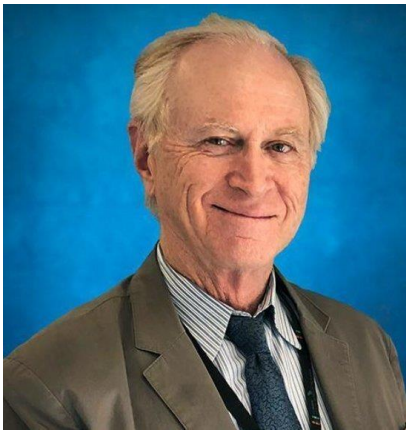
UCDAVIS HEALTH | COMPREHENSIVE CANCER CENTER

Shared Resources Newsletter - Winter 2025/26

Welcome Message from the Associate Director for Shared Resources – Kent Lloyd, D.V.M., Ph.D.



Welcome to the **2025/26 Winter Edition** of the Shared Resources Newsletter.

I am delighted to launch another year of updates, insights, and community highlights from across our eight Shared Resources (SRs). Each year brings new opportunities for scientific growth, and 2026 promises to be especially dynamic. In the months ahead, you can look forward to hearing about recently upgraded instrumentation, expanded service offerings, and novel analytical capabilities designed to support the evolving needs of our cancer research community.

We will also spotlight upcoming workshops, hands-on training sessions, and user engagement events aimed at helping investigators maximize their use of the research support services and capabilities

available to them. You can expect features on new staff and scientific experts joining our teams, as well as profiles of innovative research projects that illustrate how the SRs are fueling discovery research to beat cancer.

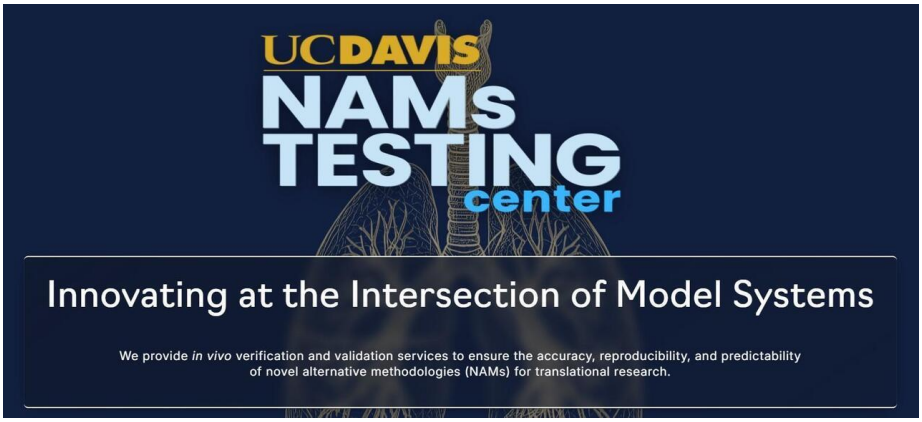
Behind the scenes, we are continuing to refine workflows, integrate new data management tools, and strengthen cross-core collaboration to ensure investigators have seamless access to the cutting-edge technologies that support high-impact cancer research.

Thank you for your continued partnership and enthusiasm. We look forward to a year filled with scientific advancements, shared successes, and new possibilities for *Breaking Barriers to Beat Cancer*.

Dr. Kent Lloyd will now be available at Aggie Square every Thursday for consultations.

Email Dr. Lloyd to book a time to discuss how the Cancer Center Shared Resources can assist you with your cancer research project.

Email Dr. Lloyd



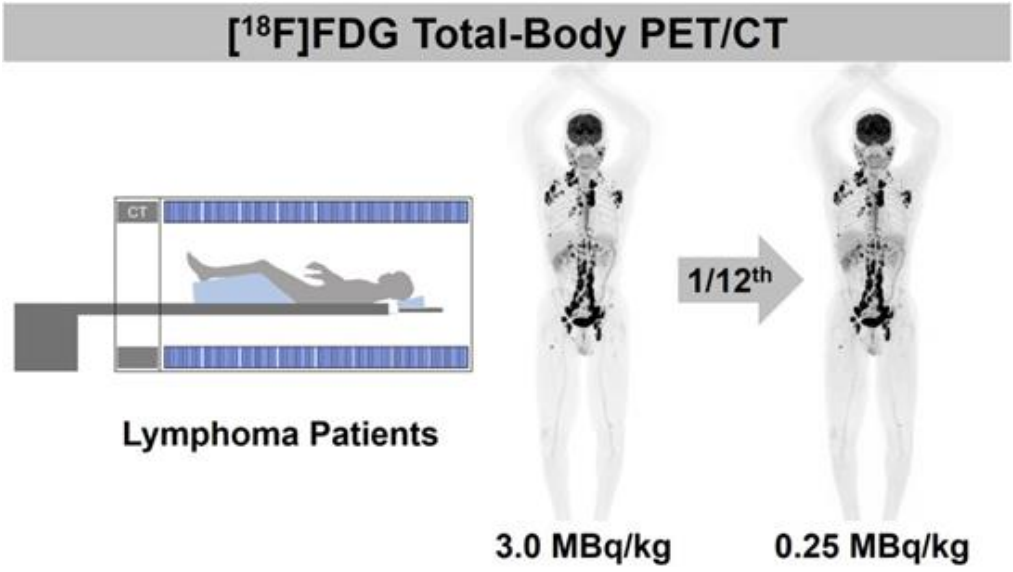
NAMs, which stands for “novel alternative methodologies” or “new approach methods”, are an exciting group of *in chemico*, *in vitro*, and *in silico* technologies that have the potential to accelerate translational research by reducing reliance on slower, more costly, and/or less human-relevant experimental approaches. Worldwide, more than 2500 NAMs built to recapitulate biological and pathological processes across numerous body systems are becoming available to the research community. However, like any research method, NAMs must be verified and validated as *bonafide* biomedical research tools to ensure results from their use accurately and precisely represent the biological system they were intended to recapitulate. To do so, a group of scientists from across campus have come together under the leadership of Dr. Kent Lloyd to establish the UC Davis NAMs Testing Center as a nexus for collaboration between academic researchers, industry partners, and regulatory agencies to facilitate the validation of NAMs as model systems for human biology and disease research.

Dr. Lloyd and his colleagues are available to assist your scientific group design, optimize, or conduct research using a NAM to ensure its biomedical relevance and utility. The Center accepts investigators’ requests to assess the function and output of NAMs using established *in vivo* models. Studies are conducted under carefully designed and rigorously controlled experimental conditions that enable benchmarking NAM’s predictive power across safety, pharmacology, efficacy, and other crucial domains.

The NAMS Testing Center delivers clear analytical and interpretative reports of actionable results to support publications, grant applications, or regulatory submissions. All project descriptions and experimental results are confidential and remain the sole property of the requesting investigator.

To learn more about the NAMs Testing Center, please email, call 530-754-CNTR (2687) or visit the NAMs website.

Leveraging the Shared Resources - Research Spotlight



A recent study in *The Journal of Nuclear Medicine* showed that total-body PET/CT imaging can accurately assess lymphoma treatment response using much lower radiation doses than current standards, a finding with broad implications for cancer care and research.

The study demonstrates that the exceptional sensitivity of total-body PET allows clinicians to detect and measure tumor metabolic activity even when the amount of radioactive tracer is substantially reduced. This preserves diagnostic performance while minimizing radiation exposure, an important advance for patients who require repeated imaging during and after cancer therapy.

By enabling safer, more frequent, and more precise monitoring of treatment response, this approach could improve clinical decision-making, support adaptive treatment strategies, and expand the use of

PET imaging in both clinical trials and routine oncology care. The findings highlight how next-generation imaging technologies can advance precision cancer medicine while reducing risk to patients.

This study leveraged the support of the In Vivo Translational Imaging SR.

Shared Resources Events

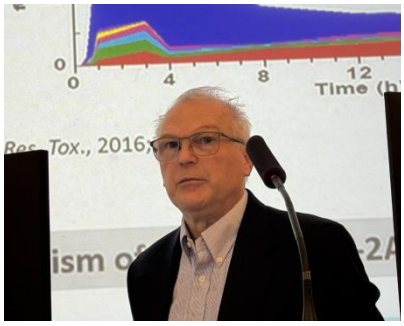
The Cancer Center Shared Resources provide members of the scientific community with advanced equipment, technical expertise, and advanced training to enable high-impact cancer research. Shared Resources Management (SRM) regularly hosts workshops and seminars and participates in events held at UC Davis to highlight and raise awareness of SRs services along with hosting visitors at the various SRs.

Shared Resources at the 31st Annual Cancer Research Symposium

SRM, with the EXPLORER Molecular Imaging Center (EMIC) (part of the In Vivo Translational Imaging SR) and Mouse Biology SR, hosted a table at the recent 31st Annual Cancer Center Research Symposium held on October 9-10 at the Sacramento Campus. Dan Port worked the SR and MBSR table with an interactive kiosk while Dr. Benjamin Spencer displayed the EMIC table showcasing the model size EXPLORER Total-Body PET/CT scanner along with the holographic display showing some EXPLORER images. The symposium was a huge success with over 200 attendees during the two-day event. Events like the Cancer Center's symposium highlight the power of collaboration across UC Davis Health - bringing together scientists, clinicians, and trainees who are committed to transforming how we detect, treat, and ultimately prevent cancer.

Pictured L-R: Drs. Lorenzo Nardo (Director - EMIC), Tianhong Li, and Benjamin Spencer (Manager - EMIC) at the EMIC exhibition.

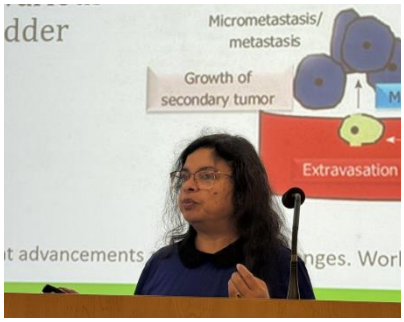
Shared Resources and Lawrence Livermore National Laboratory Seminar - BioAMS



Dr. Bruce Buchholz (Staff Scientist, LLNL)

The UC Davis Comprehensive Cancer Center Shared Resources and Lawrence Livermore National Laboratory (LLNL) co-hosted their second annual bioAMS seminar on November 7, 2025, highlighting how Cancer Center members can access LLNL's National User Resource for Biological Accelerator Mass Spectrometry (bioAMS).

The program featured talks by Dr. Bruce Buchholz (LLNL), who outlined bioAMS access procedures and the ability to obtain free, ultra-sensitive measurements, and Dr. Paramita Ghosh (UC Davis), who shared how bioAMS enabled her research on pesticide exposure and bladder cancer by revealing tissue-level insights not otherwise possible.



Dr. Paramita Ghosh (Professor, UC Davis)

Breakout sessions allowed for additional discussion and peer exchange.

BioAMS enables ultra-sensitive radioisotope analyses to quantify and identify biomarkers, supporting research on new drug candidates, accelerated therapeutic development, and studies of emerging pathogens and environmental toxins. Visit **here** to learn more about bioAMS.

Paul Calabresi Clinical Oncology K12

Dr. Kent Lloyd participated in the Paul Calabresi Clinical Oncology K12 held on December 12, 2025. His lecture on the Comprehensive Cancer Center Shared Resources provided an overview of the variety of technical resources, scientific expertise, and core services available and accessible to researchers in clinical oncology.

For the benefit of the K12 scholars, Dr. Lloyd pointed out how the SRs are available for scientific consultation, experimental planning, setting up and using the PPMS system, etc.

Learn more about the Paul Calabresi Clinical Oncology K12 program.

Office of Grant Development - Spotlight

Are you preparing a cancer-focused grant? The Cancer Center's Office of Grant Development (OGD) is a dedicated resource available to Cancer Center members that supports investigators throughout the entire grant process from strategy and writing to budgeting and submission. While primarily serving Cancer Center PIs, support for graduate students and postdocs is available on a case-by-case basis.

The OGD provides support for a wide range of mechanisms, including individual R-series awards, multi-PI collaborations, training grants, and center grants.

Their services include:

- ***Scientific Strategy***: Providing feedback on study design, methods, and resource use.
- ***Proposal Development***: Preparing, editing, and reviewing grant narratives and budgets.
- ***Administrative Support***: Drafting ancillary documents such as Letters of Support, Biosketches, and compliance statements.
- ***Resubmission Guidance***: Reviewing summary statements and helping investigators strategically address reviewer critiques.
- ***Facilitating Collaborations***: Organizing translational forums and initiatives to foster collaborative connections

The OGD team is made up of five dedicated and highly skilled staff who are always available to answer any grant writing-related questions and how they can support your application.

To learn more about the OGD team and how they can support you, visit their webpage.

OGD Webpage

Upcoming Events and Office Hours

Biostatistics Shared Resource

Join us in person or via Zoom from 12:10 to 1:00 p.m. for the Biostatistics Seminar Series of the Winter quarter, presented by the following distinguished speakers:

Date	Speaker	Institution	Mode
Tuesday, January 27	**Megan Othus**	Fred Hutchinson Cancer Center	**Zoom only**
Tuesday, February 10	**John Louis-Strakes Lopez**	UC Berkeley	In-person / **Zoom**
Tuesday, February 17	**Qingxia "Cindy" Chen**	Vanderbilt University	**Zoom only**
Tuesday, February 24	**Daniel J Tancredi**	UC Davis	In-person / **Zoom**
Tuesday, March 3	**Dingning Liu**	UC Davis visiting student	In Person / **Zoom**
Tuesday, March 10	**Ying Lu**	Stanford Medicine	In Person / **Zoom**

In-person meeting location
Mathematics Sciences Building (MSB), **Room 1147**
339 Crocker Ln, Davis, CA 95616

University of California, Davis

The **BSR** provides biostatistical support for clinical, population, and basic science researchers.

To better support the study design and data analysis efforts of our members, the BSR offers weekly office hours in collaboration with the Clinical and Translational Science Center:

1st and 3rd Monday, 1 - 2 p.m.

Tuesdays, 12 - 2 p.m.

For more information, contact Dr. Lihong Qi.

Schedule an Appointment

Comprehensive Flow Cytometry ONLINE Course - March 9-13

The UC Davis Flow Cytometry Core is holding its popular Comprehensive Course in Flow Cytometry ONLINE this winter, March 9-13, 2026, PST. This online course combines information packed lectures and practical laboratory sessions to provide an in-depth understanding of flow cytometry. This course is designed to make the best use of teleconferencing software convey important topics in online lecture sessions and live video “labs” with the instructors.

One of the most comprehensive cytometry training courses offered in the nation, the course’s specific objectives are to:

- teach the fundamental concepts of how flow cytometers work

- discuss best practices in sample preparation for flow cytometry

- describe standard assays and techniques

- introduce new cutting-edge technologies and applications for single cell analysis and genomics

- demystify multicolor cell staining, compensation and analysis

Registration Details

Cancer Center Flow Cytometry Online Course Scholarships:

Cancer Center members are eligible to apply for five (**5**) full tuition scholarships ($900.00) for this course.

Who can apply? Scholarships are available to faculty, post-doctoral researchers, graduate student researchers, undergraduate students and laboratory staff members **who are Cancer Center members or who work for Cancer Center member investigators.**

How to apply? Applicants need to submit a short, one paragraph description of their research project and indicate specifically:

1. How this flow cytometry training will advance their research goals.

2. Describe plans to use the Flow Cytometry Core’s instrumentation to carry out their research work (Sacramento or Davis).

3. Agreement to fill out daily course assessment surveys. That’s the catch!

4. Agreement to appropriately cite the UC Davis Flow Cytometry Shared Resource (FCSR) and the Cancer Center Shared Grant when publishing cytometry data generated using core instrumentation and supported by this Cancer Center educational opportunity.

5. Participate in a post-course outcomes assessment.

Due date: Applications are currently being accepted until **Sunday March 1, 2026** at **9:00 p.m.**

Submit your application: Email your application paragraph, including the application details listed above, to the FCSR Director, **Bridget McLaughlin**.

Genomics Pop-in Workshops

Have you ever been ready to submit your manuscript but gotten bogged down trying to figure out how to upload your data to GEO?

Join us for the next Genomics Pop-in Workshop, where we will walk through the process step-by-step, discuss best practices, tackle common pitfalls, and answer all your burning questions. Whether you are knee-deep in sequencing data or just getting started, we are here to help!

After the presentation, stick around for open discussion and troubleshooting on any genomics-related questions or projects - bring your data, ideas, and curiosity! We invite you to use this opportunity to discuss/troubleshoot/brainstorm any genomics applications, topics, projects, data, proposals, manuscripts, etc.

No registration needed - the workshop will be held in-person and virtually on the UC Davis Health campus on the 4th Wednesday of each month, **1:30-2:30 p.m.** (**Betty Irene Moore Hall, Room 1602, Sacramento**). For those attending in-person, home-baked snacks will be provided.

Join via Zoom using the button below. For questions, email the **GSR team**.

Join by Zoom

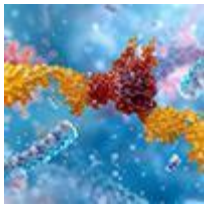
Explore all the Shared Resources

Biorepository (BRSR)

Biostatistics (BSR)

Flow Cytometry (FCSR)

Genomics (GSR)



Immune Modeling, Analysis, and Diagnostics (IMADSR)

In vivo Translational Imaging (IVTISR)

Mouse Biology (MRSR)

Molecular Pharmacology and Chemical Biology (MPCBSR)

Notice to All NIH-Funded Investigators

Acknowledging the Cancer Center Support Grant and Shared Resources in Publications

Shared Resources are funded by the UC Davis Comprehensive Cancer Center Support Grant (CCSG) awarded by the National Cancer Institute (NCI P30CA093373). All publications, press releases or other documents that cite results from CCSG-supported research, including the use of CCSG-supported Shared Resources and awarded pilot project funding, must acknowledge the CCSG and maintain compliance with NIH Public Access Policy (see below). NIH citation instructions can be found by clicking the button below:

Communicating and Acknowledging Federal Funding

Example statements are provided below:

CCSG Acknowledgement: Research reported in this publication was supported by the UC Davis Comprehensive Cancer Center Support Grant (CCSG) (NCI P30CA093373).

Disclaimer: The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

Sample SR Acknowledgement: The authors wish to acknowledge the support of the UC Davis Comprehensive Cancer Center [NAME] Shared Resource, supported by the Cancer Center Support Grant (CCSG) (NCI P30CA093373).

Guidance on submission and reporting methods can be found here.

NIH Data Management

Previous Issues

Articles or Questions