

Shared Resources Newsletter - Winter 2025

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



Welcome to the winter edition of the Shared Resources Newsletter.

The Shared Resource Management (SRM) office provides the Shared Resources (SRs) with administrative policies, business practices, operational processes, and infrastructure support to promote use and access by UC Davis Comprehensive Cancer Center (UCDCCC) members. To do so, SRM staff work with Cancer Center members and SR leaders to facilitate ways to improve and enhance service delivery in order to meet user expectations.

To follow are a few examples of recent updates:

- **Dr. Lihong Qi** has been appointed as the Director of the Biostatistics Shared Resource (BSR).
- The Molecular Pharmacology Shared Resource (MPSR), led by **Dr. Aiming Yu**, has been renamed the Molecular Pharmacology and Chemical Biology Shared Resource (MPCBSR) and will include key components and services of the former Combinatorial Chemistry and Chemical Biology Shared Resource (CCCBSR).
- The Immune Modeling, Analysis, and Diagnostics **developing** Shared Resource (IMADSR) will be proposed as an **established** Shared Resource in the upcoming competitive renewal application.
- The In Vivo Translational Imaging Shared Resource (IVTISR) has been **reorganized** into two functional components, the Center for Molecular and Genomic Imaging (CMGI) and EXPLORER Molecular Imaging Center (EMIC) to focus on animal and human imaging research, respectively.

For any questions related to these changes or if you would like to know more about SRM, please contact Dr. Kent Lloyd, Associate Director for Shared Resources (AD for SR).

Email Dr. Lloyd

To learn more about Shared Resources please click the link below:

Shared Resources

Shared Resources Workshop - Dr. Aiming Yu and Dr. Hongwu Chen's presentation



The December Shared Resources Workshop was held on Wednesday, December 19, 2024, and featured Dr. Hongwu Chen and Dr. Aiming Yu. A total of 23 attendees joined the hybrid session.

Dr. Chen shared how his team prepared several innovative and impactful research tools using the Genomics Shared Resource (GSR) to identify key epigenetic regulators as new therapeutic targets in advanced prostate cancer. Dr. Chen shared that the GSR offered a complete solution for integrative and functional molecular profiling with amazing support from Ryan Davis and Stephenie Liu. Dr. Yu focused on the use of recombinant microRNAs as antimetabolites to inhibit human non-small-cell lung cancer (NSCLC).

Dr. Yu shared that his research involved the use of multiple SRs such as Molecular Pharmacology (MPSR), Flow Cytometry (FCSR), and Mouse Biology (MBSR) which enabled him to get desired results.

Drs. Chen and Yu both offered to share their presentations and collaborate with investigators.

[Email Dr. Chen](#)

[Email Dr. Yu](#)

If you have any questions regarding these workshops or require any SR-related information, please contact the SR Administrator

[Email SR Admin](#)

Biorepository Shared Resource - Site Visit

The Biorepository Shared Resource (BRSR) provides cancer investigators access to well-characterized, high-quality specimens with annotated data. The BRSR facility is led by **Dr. Nam Tran, PhD, HCLD (ABB)** (Director), and managed by **Cole Torvick, BS** (Supervisor) and **Mega Lahori, MBBS** (Co-Director).

Dr. Ashley Hodel, Rachel Rivas and Aruna Chetty from the Cancer Center visited the BRSR lab at the UC Davis Medical Center.



Hamilton Micro Star fluid handler for specimen aliquoting

The BRSR collects blood and plasma samples from cancer patients, both preoperatively and postoperatively. Researchers can request fresh tissue collection from consenting patients or frozen specimens from their inventory.

Investigators can access the BRSR's state-of-the-art OpenSpecimen Data Catalog via the UC Davis Health CITRIX system. The catalog houses their full biorepository inventory where cancer researchers can search for

samples and filter results by various demographics, diagnoses and outcomes.

not require patient consent.

Services include:

- Specimens (tissue and blood, de-identified/coded) collected, processed and stored with adherence to an extensive quality management program
- Dispersal of fresh tissue (de-identified/coded) immediately after collection
- Main provider of histology services for UCDCCC Clinical Trials
- Collection/storage/tracking of investigator-initiated studies in customizable state-of-the-art online data management tool called OpenSpecimen.
- Collection of common solid cancer types such as lung, breast, prostate, head/neck, thyroid, brain, sarcomas and other tumors
- Routine histology services including H&E and unstained sections, tissue microarrays, and immunohistochemistry
- Consultation / pathologist interpretation / imaging
- Access to >200,000 Pathology archived paraffin blocks for research purposes
- Access to remnant clinical specimens and clinical pathology testing services



Equipment includes four -80°C freezers (pictured left), and one -150°C Panasonic Cryogenic Chest Freezer with Liquid N2 backup (pictured right) designed for long-term biological storage at uniform temperatures between --140°C and -150°C.



Partnership with Center for Diagnostic Innovation (CLIA Investigational Testing Services).

Inclusion of the BRSR within the new Center for Diagnostic Innovation enables access to clinical grade testing solutions to characterize specimens and support investigational studies (shared equipment pictured below).



Roche Cobas Pro



Bio-Rad QXOne Digital Droplet PCR (ddPCR):and MALDI Mass Spectrometry



BioFire Filmarray

The full list of BRSR's services and recharge rates can be found on their website. Please note that rates charged to Cancer Center members are subsidized for cancer-related research.

BRSR website

The BRSR's primary research lab and office spaces are located in the UC Davis Medical Center, Pavilion (SESP), 2nd Floor, Room 2P524, Sacramento, CA 95817. If you have any questions, please contact them by clicking the button.

Email BRSR

[Subscribe](#) to our email list.

Shared Resources Post-Service Evaluation - Phase II Complete

SRM introduced the new bi-annual post-service evaluation in January to get immediate and anonymous feedback from users.

Thank you to those who completed these evaluations. Users who responded to this request and provided their contact details were entered into a drawing in December to win gift cards!

Congratulations Dr. Russell Hovey...your gift card is on its way!



Faculty Spotlight - Xiao-Jing Wang, M.D., Ph.D.



Xiao-Jing Wang, M.D., Ph.D., was recruited to UC Davis in May 2022, as the Robert E. Stowell Endowed Chair in Experimental Pathology in the Department of Pathology of Laboratory Medicine. She also serves as Chief Science Officer and Associate Director of Basic Science for the UC Davis Comprehensive Cancer Center.

Prior to taking her current position, she was a Professor in the Department of Pathology at the University of Colorado (CU) from 2008-2022. She was the Inaugural John S. Gates Endowed Chair of Cancer Stem Cell Biology and the founding Director of the Head & Neck Cancer Research Program. At CU, she led a team that received \$10m NCI award for the Head & Neck Cancer SPORE Program, one of only 4

national funded programs. Her SPORE research project and investigator-initiated clinical trials moved to UCDCCC.

Dr. Wang has expertise in cancer stem cell biology, immune microenvironment and immunotherapeutic response. Dr. Wang's laboratory has developed many genetically engineered mouse models for studying cancers and human diseases. These models are unique resources for evaluating mechanisms and efficacy of clinical trials for cancer prevention and treatments in natural immune environments and to develop interventions for biomarker discoveries and novel therapies. Her expertise in mouse models for human cancers as well as the genetically engineered mouse models generated from her laboratory add value to the Mouse Biology Shared Resource (MBSR).

As part of her recruitment to UC Davis, Dr. Wang brought Nanostring Spatial Profiling to the Genomics Shared Resource (GSR), which is now one of its most sought-after services. She also brought IncuCyte, a live imaging system to the Molecular Pharmacology and Chemical Biology Shared Resource (MPCBSR). These new initiatives facilitated more collaborations and enhanced our SR goal of next generation/next innovation.

Outside of work Dr. Wang likes to spend her free time hiking, gardening, and Zumba dancing.

You can learn more about Dr. Wang and her research at UC Davis by clicking this [link](#) or by emailing her.

Email Dr. Wang

Staff Spotlight - Aruna Chetty, M.B.A.



Aruna Chetty, M.B.A. is the Shared Resources Administrator for the UCDC's SRM. She is responsible for providing administrative and data analysis support to ensure continued SR operational excellence and compliance with NCI's CCSG guidelines. She also manages policy development, meeting organization, user surveys, utilization reports, and presentations. Since joining SR in April 2023, Aruna has implemented new governance processes and increased marketing opportunities for SRs locally and nationally. She has also reviewed and revised existing templates to streamline processes and increase efficiencies. She is also the writer/editor for the SR newsletter.

Aruna was born in Fiji and spent most of her time in New Zealand. She moved to USA in 2021 to join her husband. Prior to moving, she was the

Principal Advisor in Evidence, Data and Knowledge at the Ministry of Education in New Zealand. She has held leadership roles in governance, student support, and office management. Aruna has also taught Biology to K12 and pre-med students in 11 countries of the South Pacific.

Aruna graduated with a Bachelor of Education and Post Graduate Diploma in Biology from the University of the South Pacific in Fiji and did her Master of Business Administration at Victoria University of Wellington in New Zealand, with an exchange semester at McMaster University in Canada. She is also a recipient of the UC Davis Lean Six Sigma Green Belt scholarship, which she completed in 2024, with high distinction.



Aruna loves travelling and watching movies when not working. Her favorite pastime in New Zealand was spending time with Dolly, her cat of 14 years, who she lost to stomach cancer. That experience made her passionate about helping animals and people with cancer and encouraged her to work in cancer-related research.

You can email Aruna with any SR-related questions or drop by her office (Cancer Center South Building, Ste 3009E) on Wednesdays and Thursdays to learn more about the amazing New Zealand landscape and Fijian hospitality or Indo-Fijian cuisine!

Email Aruna

Upcoming Events and Office Hours

Translational Cancer Research Forum - March 27



"Production and Application of Recombinant miRNAs to Cancer Research and Therapy"

Aiming Yu, Ph.D.

Professor

Biochemistry and Molecular Medicine

Dr. Yu's research interests include regulatory mechanisms controlled by noncoding RNA, anticancer pharmacology, and experimental therapeutics. The ultimate goal of his group's research is to translate noncoding RNAs into new therapies.

Thursday, Mar. 27, 2025

10 - 11 a.m.

Join by Zoom

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'll walk through the process step-by-step, discuss best practices, tackle common pitfalls, and answer all your burning questions. Whether you're knee-deep in sequencing data or just getting started, we're here to help!

After the presentation, stick around for open discussion and troubleshooting on any sequencing-related questions or

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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:

Join by Zoom

For questions, email the team using this button:

Contact GSR

Biostatistics Shared Resource Office Hours

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.

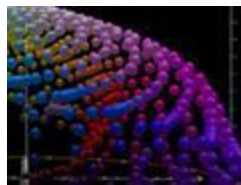
For more information, contact [Dr. Lihong Qi](#).

Schedule an appointment

Explore all the Shared Resources



Biorepository
(BRSR)



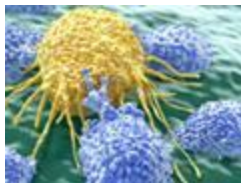
Biostatistics
(BSR)



Flow Cytometry
(FCSR)



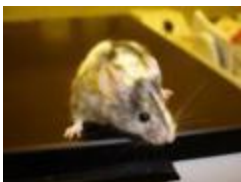
Genomics
(GSR)



Immune Modeling,
Analysis, and Diagnostics
(IMADSR)



In vivo Translational
Imaging
(IVTISR)



Mouse Biology
(MRSR)



Molecular Pharmacology
and Chemical Biology
(MPCBSR)



Shared Resource
Management
(SRM)

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 University of California 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

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