

Department of Biochemistry and Molecular Medicine

## **Welcome to October, BMM Department!**

We are excited to share this autumn issue of our Biochemistry and Molecular Medicine (BMM) newsletter, an initiative of the department's **I-DARE** (Inclusion, **D**iversity, **A**nti-**R**acism, and **E**quity) Taskforce. Each newsletter issue serves to spotlight the contributions of BMM faculty, students, and staff to our university's mission of research, teaching, service, diversity, and equity. We hope that your academic year has begun in smooth and inspiring ways. Happy reading!



**Diversity, Equity and Inclusion** 

The **BMM I-DARE Taskforce** is continuing to implement the department's strategic plan, aimed at advancing a climate of community. Updates will be shared at our upcoming department retreat on Friday, October 14th. We share details about the retreat in this newsletter.

#### **Ongoing Mentorship of EEOP Undergraduates**

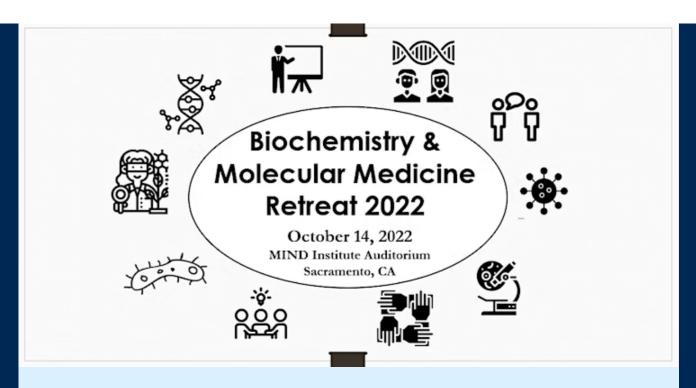
The BMM I-DARE Taskforce has developed a collaboration with <u>Connie Champagne</u>, director of the UC Davis <u>Education Enrichment and Outreach Programs</u> (EEOP), to increase participation of our faculty, staff, and students in mentorship of the diverse undergraduate students in their programs. Here is an update on our two BMM-EEOP collaborations:

- 1. BMM-EEOP Advocate Program Five BMM members volunteered to be advocates or secondary mentors for EEOP students. Advocates meet regularly with students to help them navigate their first lab research experience and reach their career aspirations and goals. The nine undergraduate students mentored by our BMM advocates have responded enthusiastically to this additional mentorship. We hope to have another round of advocate recruitment in the future to meet this great need.
- 2. BMM-EEOP Faculty Mentor Program Thanks to funding from the Office for Health Equity, Diversity, and Inclusion, BMM will support three paid positions for undergraduate researchers from the Biology Undergraduate Scholars Program (BUSP) to conduct research with BMM faculty. BUSP supports the success of biology students by providing a challenging, structured academic curriculum, advising, and, most importantly, early experience in research. We are grateful that seven BMM faculty members have volunteered. Matching of faculty members to mentees is underway.



A group of Educational Enrichment and Outreach Program undergraduate students.

**Department Retreat Next Week** 



Our **BMM retreat** — an interactive event to foster department-wide discussion and action plans for future DEI work and promote networking and collaboration within the department — is **NEXT WEEK!** Please join us to socialize and to discuss the state of the department, diversity, inclusion, and science.

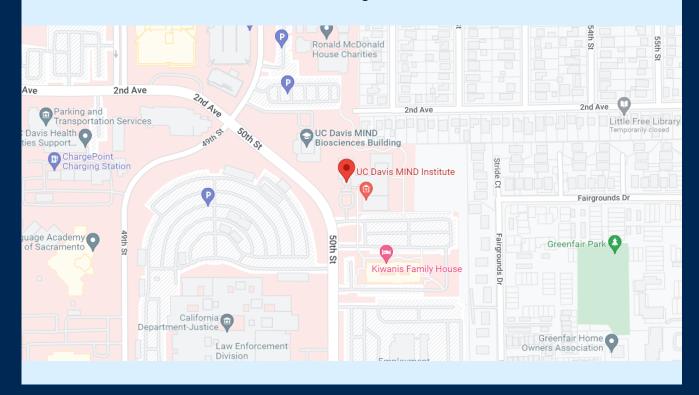
**When:** Friday, October 14, 2022, 8:30 a.m. — 3:30 p.m.

# Preliminary Agenda

Time	Session
8:30 – 9:00 a.m.	Breakfast
9:00 – 10:00 a.m.	State-of-the-Department (Department Chair)
10:00 – 10:15 a.m.	Action Plan Discussion (BMM iDARE Taskforce)
10:15 – 10:30 a.m.	Coffee Break
10:30 – 10:55 a.m.	Topic 1: How do we improve diversity at many levels?
10:55 – 11:20 a.m.	Topic 2: What would make you feel like you belong to a department?
11:20 – 11:45 a.m.	Topic 3: How should we treat each other?
11:45 a.m. – 12:15 p.m.	Wrap-Up Discussion
12:15 – 1:15 p.m.	Lunch: Rotating Slides of Lab Science
1:15 – 1:30 p.m.	T-Shirt Contest Winner
1:30 – 3:10 p.m.	Data Blitz: Trainees share their science projects
3:10 p.m.	Concluding Remarks

Where: Auditorium, UC Davis MIND Institute, 2825 50th St., Sacramento, CA 95817

All students, staff, faculty, and other department members are invited to join us. For directions to the MIND Institute, click the image below.



## Dr. Alan Lombard: CAMPOS Faculty Scholar

**Dr. <u>Alan Lombard</u>**, the newest member of our department, was recently approved as a UC Davis CAMPOS Faculty Scholar. Congratulations Dr. Lombard!



campos Faculty Scholars are nominated and selected for their exceptional records of research and teaching excellence and their commitment to and an accomplished track record (calibrated to their career stage) of teaching, research, or service activities addressing the needs of underrepresented students and communities in STEMM (Science, Technology, Engineering, Mathematics, and Medicine) fields.

As part of the eighth cohort (2022-2023) of CAMPOS Faculty Scholars, Dr. Lombard joins 40 other UC Davis faculty members across 31 academic disciplines on the main campus and at the UC Davis Medical Center in Sacramento.

UC Davis is committed to developing a strong and diverse community of STEMM scholars. The mission of the **Center for the Advancement of Multicultural** 

<u>Perspectives on Science</u> (CAMPOS) is to support the discovery of knowledge through an inclusive environment that is diversity-driven and mentorship-grounded. The center focuses on the career success of its faculty scholars. CAMPOS is a key element of the university's campus-wide effort to transform the STEMM disciplines to become more inclusive, diverse, and engaged with under-served communities.

You can read more about Dr. Lombard and the CAMPOS faculty scholars **here**.

# Faculty, Staff and Student Recognitions

#### **Recent Appointments**

**Dr.** Yuanpei Li was appointed to the School of Medicine Faculty Personnel Committee through August 2023 to review faculty academic actions. The Committee on Academic Personnel (CAP) selects a FPC for each college and school. These committees advise and assist the deans in making their decisions in a capacity similar to the assistance and advice CAP provides to the Vice Provost of Academic Affairs.

#### **Awards and Grants**

Congratulations to Dr. Yuanpei Li and his team, who received a R01 grant from the National Institutes of Health to "develop a Sequential Targeting In CrosslinKing (STICK) nano-delivery strategy to improve therapeutic efficacy and reduce toxicity of the treatment for diffuse midline glioma (DMG)." Read more » A "STICK" theranostic nanoplatform for image-guided drug delivery to brain malignancies.

Congratulations to Dr. Flora Tassone, who was recognized by the Society for the Study of Behavioral Phenotypes for her commitment of 20 years as a member and for three cycles of service as an executive member. Read more » Society for the Study of Behavioral Phenotypes Committee.

Congratulations to Nikki Tjahjono, a graduate student studying biomedical engineering in Dr. Lin Tian's laboratory, who received a F31 National Research Service Award from the National Institutes of Health for her proposal: "An All-Optical Platform for Modeling and Monitoring Early Neurodegeneration in Human Neural Circuits." Read more » Ruth L. Kirschstein Predoctoral Individual National Research Service Award.

Nikki also received a UC Davis Graduate Studies travel award to attend the Gordon Research Conference on Optogenetic Approaches to Understanding Neural Circuits and Behavior and a training course at Cold Spring Harbor Laboratory. Read more » 2022 Gordon Research Conference program and Imaging Structure and Function in the Nervous System.

Congratulations to <u>Erin Scott</u>, a <u>Tian Lab</u> graduate student, who was recently awarded a T32 grant by the National Institutes of Health. Read more » <u>T32:</u> <u>Institutional National Research Service Award (NRSA)</u>.

Congratulations to <u>Yihan Jin</u>, a <u>Tian Lab</u> graduate student in neuroscience, for receiving the Barbara Chapman Neuroscience Award from the UC Davis Center for Neuroscience. Read more » <u>Barbara Chapman Neuroscience Award</u>.

Congratulations to <u>Kiran Long-lyer</u>, also a <u>Tian Lab</u> graduate student in neuroscience, who was admitted to the FUTURE Career Skills and Exploration Program. Read more » <u>FUTURE Career Skills and Exploration Program</u>.

#### In the News

This week, the Nobel Prize in Chemistry was awarded to Carolyn Bertozzi, Barry Sharpless, and Morten Meldal "for the development of click chemistry and bioorthogonal chemistry." Four years ago, Bertozzi founded InterVenn Biosciences alongside UC Davis professor Carlito Lebrilla to commercialize applications of her work. Read more » InterVenn BioSciences Co-Founder Carolyn Bertozzi Awarded Nobel Prize in Chemistry.

"Two new UC Davis Health studies have explored how differences in skin composition may lead to dermatological conditions, such as psoriasis and atopic dermatitis," Claudia Coons reports. UC Davis professor <u>Yoshihiro</u> <u>Izumiya</u> was a co-author on both papers. Read more » <u>Uncovering the skin's secrets:</u> Studies show how skin forms differently across the body.

A recent story by Neelanjana Gautam featured Peak B, a startup co-founded by UC Davis professor <u>Justin Siegel</u> that creates "natural alternatives to synthetic food colorants with superior color qualities, stability, and potency." Read more » <u>New Startups Built From UC Davis Innovations Drive Solutions in Food, Health and Agriculture.</u>

#### **Recent Publications**

From the labs of Drs. <u>Clifford Tepper</u> and <u>John McPherson</u>, in collaboration with Dr. <u>Noriko Satake</u>, UC Davis Health professor of pediatric oncology, and <u>Ryan Davis</u>, genomics specialist at the Genomics Shared Resource:

Lee AQ, Konishi H, Duong C, Yoshida S, Davis RR, Van Dyke JE, Ijiri M, McLaughlin B, Kim K, Li Y, et al. 2022. "A Distinct Subpopulation of Leukemia Initiating Cells in Acute Precursor B Lymphoblastic Leukemia: Quiescent Phenotype and Unique Transcriptomic Profile". Frontiers in Oncology.

From the lab of Dr. Yuanpei Li:

Ma Z, Lin K, Tang M, Ramachandran M, Qiu R, Li J, Solano LN, Huang Y, De Souza C, Abou-Adas S, et al.2022. "A pH-Driven Small-Molecule Nanotransformer Hijacks Lysosomes and Overcomes Autophagy-Induced Resistance in Cancer".

Angewandte Chemie International Edition in English.

From the lab of Dr. Flora Tassone:

Fu JM, Satterstrom FK, Peng M, Brand H, Collins RL, Dong S, Wamsley B, Klei L, Wang L, Hao SP, et al. 2022. "Rare coding variation provides insight into the genetic architecture and phenotypic context of autism". *Nature Genetics*.



Varian BJ, Weber KT, Kim LJ, Chavarria T, Carrasco S, Muthupalani S, Zafarullah M, Poutahidis T, AlOlaby RR, Gardner BM, et al. 2022. "Maternal Microbiota Modulate a Fragile X-like Syndrome in Offspring Mice". Genes (Basel).

(See cover at left) AlOlabi RR,
Zafarullah M, Barboza M, Peng G,
Varian BJ, Erdman SE, Lebrilla C,
Tassone F. 2022. "Differential
Methylation Profile in Fragile X
Syndrome-Prone Offspring Mice after
in Utero Exposure to Lactobacillus
Reuteri". Genes (Basel).

Hwang YH, Hayward BE, Zafarullah M, Kumar J, Durbin Johnson B, Holmans P, Usdin K, Tassone F. 2022. "Both cis and trans-acting genetic factors drive somatic instability in female carriers of the FMR1 premutation". *Scientific Reports*.

# Conferences, Seminars and Workshops Conference Presentations

Dr. <u>Lin Tian</u> presented "Letting the Little Light of Mind Shine: Genetically Encoded Indicators for Neurochemical Detection" at the Gordon Research Conference on Optogenetic Approaches to Understanding Neural Circuits and Behavior. Read more » <u>2022 Gordon Research Conference program</u>.

#### **BMM Research in Progress Seminar Series**

The BMM Research in Progress Seminar Series will host two BMM faculty — <u>Alan</u> <u>Lombard</u>, Ph.D., and <u>Hongwu Chen</u>, Ph.D. — over the coming months. Dr. Lombard will deliver the first of these talks on October 20, 2022. Further details can be found by visiting the seminar calendar.

#### **Integrated Biomedical Sciences Seminar Series**

The Integrated Biomedical Sciences Seminar Series will feature upcoming seminars on Tuesday mornings in October and December. Further details can be found by

#### Frontiers in Pharmacology Seminar Series

The Frontiers in Pharmacology Speaker Series welcomes upcoming speakers in October and November. Full details can be found on the series webpage.

# **Open Positions**

- 1. Assistant Project Scientist Lo Lab.
- 2. Assistant/Associate Specialist Yu Lab.
- 3. Postdoctoral Fellow Sweeney Lab.
- 4. Junior Specialist Tian Lab.

#### Contribute to the next issue!

**Please send submissions of announcements**, including new members, seminars, conferences, workshops, events, publications, grants, outreach, news, and more, for the next issue of this newsletter to Daniel Erenstein **by November 28, 2022.** 

You can send questions, comments, and feedback to <u>Daniel</u> anytime as well. We'll be back in your inbox in early December 2022. Until then, take care!



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