

Spring 2022 DMC Newsletter

This quarterly newsletter is provided by the Duke Microbiome Center (DMC) to inform the Duke University community about activities, resources, news, funding and educational opportunities, and recent highlights in the microbiome sciences at Duke and beyond. To suggest items for this newsletter or to add someone to our newsletter listserv, please email Cindy Wicker. For further information on the DMC, please visit the DMC Website.

In this newsletter:

- Kris Mathews promoted to Chief Administrative Officer
- <u>Dr. Shuo Han joining the faculty of the Duke Microbiome Center and Department of Biochemistry</u>
- School of Medicine Celebrates 2022 Faculty Award Recipients
- Raphael Valdivia to serve as interim chair of Immunology
- Lee **Dolat win JCS Prize**
- Heaton and Yan promoted to Associate Professor with tenure
- MGM Job Posting-Research Assistant Professor position in the Duke Microbiome Center
- Funding Opportunities through the DMC
- Alumni Spotlight: Jeff Bourgeois
- Upcoming Conferences and Workshops
- <u>Upcoming DMC Meetings</u>
- News
- <u>Highlighted Microbiome Funding Opportunities</u>
- Highlighted Recent DMC Publications
- Jobs Listing





Kris Mathews promoted to Chief Administrative Officer

Kris Mathews has been promoted by the School of Medicine from Senior Business Manager to Administrative Director, with a new working title: Chief Administrative Officer in the Department of Molecular Genetics and Microbiology. This is a richly deserved promotion in recognition of Kris' myriad contributions to the success of both MGM and the School of Medicine.

Kris arrived with nearly 20 years of previous research administration and financial management experience when she joined MGM and Duke in March of 2015. In her positions at Duke, she has served as Grants and Contracts Administrator and Financial Analyst II before assuming the Senior Business Manager position in January 2020. As Chief Administrative Officer of MGM, Kris will continue to provide overall administrative leadership for our highly productive department, including coordination of support for MGM faculty and labs, managing departmental finances and budgets, grant administration, space and facilities planning, and policy interpretation. Kris oversees 13 MGM administrative team members, and together they support our MGM community and mission of outstanding research, training, and education. We are deeply indebted to Kris for her administrative leadership, acumen, and sage advice and vision, and to her team of their dedication and service that contribute to the success of the department at every level. Please join us in congratulating Kris on this richly deserved promotion and in thanking her for her dedication to excellence and success of the department.

<u>Dr. Shuo Han joining the faculty of the Duke Microbiome Center</u> <u>and Department of Biochemistry</u>

Dear Duke Microbiome Center community,

I am very happy to inform you that Dr. Shuo Han has accepted our offer to join us as faculty here at Duke next fall! This represents the successful outcome of the partnership search conducted between the Duke Microbiome Center and the Department of Biochemistry. Dr. Han will establish a research program here at Duke that seeks to understand how the intestinal microbiome contributes to host aging and physiology, leveraging her expertise in mass spectrometry, biochemistry, metabolism, microbiology, and multiple animal models. Her lab will be physically located in the Department of Biochemistry in the Nanaline Duke Building, and her CV can be viewed here. I'm grateful to Biochemistry Chair Dick Brennan for his partnership in this search, the rest of

the committee that led this search (Lawrence David, Claudia Gunsch, Meta Kuehn, Raphael Valdivia, Ken Yokoyama, Pei Zhou), the administrative assistants who organized the search process (Peggy Wilkison and Cindy Wicker), and many of you who met with and attended seminars from the candidates we interviewed. Our ability recruit exciting young faculty like Dr. Han to Duke is a reflection of the intellectual and resource environment we have sustained in the DMC, Biochemistry and the broader Duke community.

School of Medicine Celebrates 2022 Faculty Award Recipients

Duke University School of Medicine is proud to acknowledge the faculty members who were selected as recipients of this year's School of Medicine faculty awards. These are just a few of the awards and recognitions afforded to our community members and we want to congratulate them on these well-deserved honors. Congratulations to the following 2022 Duke School of Medicine Award recipients!

Raphael Valdivia to serve as interim chair of Immunology

Effective August 1, 2022, Raphael Valdivia, PhD, Nanaline H. Duke Distinguished Profressor of Molecular Genetics and Microbiology and former Vice Dean for Basic Science for School of Medicine, will take on teh role of interim chair of the Department of Immunology. In this role, Dr. Valdivia will form and chair a task force that will be charged with helping set a course for the future to ensure Duke's preeminece in immunology and its intersection with other scientific areas of study.

Lee Dolat wins JCS Prize

<u>Lee Dolat</u> (Valdivia lab) is the winner of the 2021 <u>JCS Prize</u> for his paper entitled "An endometrial organoid model of interactions between Chlamydia and epithelial and immune cells" (Dolat and Valdivia, 2021).

The prize of £1000 is awarded annually to the first author of the paper that is judged by the Editors to be the best eligible paper published in the Journal of Cell Science that year. To be considered for the prize, the first author must be a student or a postdoc of no more than five years standing. To learn more, <u>click here.</u>

Heaton and Yan promoted to Associate Professor with tenure

Please join in congratulating <u>Nick Heaton</u> and <u>Dong Yan</u>, whose promotions to Associate Professor with tenure were recently approved by the Duke Board of Trustees. The promotions are richly deserved, and MGM is very fortunate to have Nick and Dong as colleagues. Yan joined the faculty of Duke Molecular Genetics & Microbiology in 2014, and Heaton joined in 2015.

The <u>Yan lab</u>'s research focuses on understanding mechanisms underlying neuronal development, regeneration, and degeneration. They use a free-living tiny roundworm, called Caenorhabditis elegans, as a model. The defined cell lineage, completely mapped connectome and rapid life cycle of this organism greatly facilitate investigating nervous system at the subcellular resolution. Using cutting edge laser axotomy, live imaging, and genetic and genome editing approaches, they address questions related to neurons and glia in development and aging.

The <u>Heaton lab</u> is primarily interested in the study of respiratory RNA viruses. They have published work on viruses of the families: orthomyxoviridae, paramyxoviridae, and coronaviridae. In particular, the lab's current work is focused on the orthomyxovirus influenza A, as well as the coronavirus SARS-CoV-2, as these are the viruses that have caused, and remain capable of causing, global pandemics.

Funding Opportunities through the DMC

In addition to the two Development Grant RFAs mentioned above, the DMC offers the DMC Rolling Voucher Program.

<u>DMC Rolling Voucher Program</u>: Duke University has established shared resources that avail diverse technologies to Duke investigators that can be used to advance microbiome science. To facilitate Duke Microbiome Center investigators' access to these shared resources, particularly for microbiome projects that are not yet externally funded, we are pleased to announce the **Duke Microbiome Center Rolling Voucher Program**. This rolling voucher program offers vouchers in amounts ranging up to \$10,000. Each DMC faculty member cannot receive more than \$10,000 of funds through this mechanism within any two year period. These vouchers are redeemable at any of the <u>Duke University School of Medicine's many core facilities</u>, and applicants are required to contact the directors of these shared resources to develop project budgets. Learn more <u>here</u>.

Alumni Spotlight: Jeff Bourgeois



<u>Jeff Bourgeois</u> was an MGM Graduate student in Dennis Ko's lab until earlier this month, and was a selected recipient of the <u>2021-2022 Chancellor's Award for Research Excellence (CARE)</u>. As Jeff is all set to start his post doc, <u>here are excerpts of his journey</u>.

Jeff and his doggo can be contacted at: <u>i.bourgeois12@gmail.com</u>.

News

Duke School of Medicine Biomedical PhD Student Research Pilot Grants

The Duke University School of Medicine Office of Biomedical and Graduate Education (OBGE) and Precision Genomics Collaboratory are pleased to announce pilot grants that are open to all SOM Biomedical PhD students. <a href="https://example.com/here/beauto-state-new-market-new

Recording of the Pinnell lecture at Duke on "Fungi on the skin: Malassezia and beyond" The Sheldon Pinnell lecture in the fall for Duke dermatology. Please listen to the recording, it is a pretty good lecture about fungi on the skin, or the mycobiome.

The title was Fungi on the skin: Malassezia and beyond. May be a general interest to the Duke Microbiome Center members.

Sending along the link in case you wanted to share it with the DMC community: listen here

For a full list of upcoming microbiome conferences, click <u>here</u>.

Upcoming DMC Meetings

DMC Seminar Series: This monthly seminar series is held on *third* Mondays each month at 4PM in-person in 1125 MSRB3 with a Zoom option. The DMC Seminar Series is organized by graduate students, postdocs, and fellows in DMC labs, and provides DMC trainees opportunities to build their networks and meet leaders in the field. Currently, nominations for speakers are being submitted for the upcoming year.

DMC Microbiome Research-In-Progress Talks: This monthly research-in-progress series is held on *first* Mondays at 4PM. Currently nominations for speakers are being accepted for the upcoming year. If you would like to present your work in a future DMC Microbiome Research-In-Progress meeting, please contact <u>Cindy Wicker.</u>

DMC Faculty Meetings: The next DMC faculty meeting will be 25 July 2022. All faculty meetings are at 1:00PM in-person in 4122 MSRB3 with a Zoom option.

Please mark your calendars!

Highlighted Microbiome Funding Opportunities

Centers of Excellence in Genomic Science (RM1 Clinical Trial Optional) (see here)

Identification and Characterization of Bioactive Microbial Metabolites for Advancing Research on Microbe-Diet-Host Interactions (R01 Clinical Trial Not Allowed) (see here).

National Cooperative Drug/Device Discovery/Development Groups (NCDDG) for the Treatment of Mental or Substance Use Disorders or Alcohol Disorder (U01 Clinical Trial Optional) *here*

Small Research Grants for Analyses of Down Syndrome-related Research Data for the INCLUDE Project (R03 Clinical Trial Not Allowed) (see here).

Genome Research Experiences to Attract Talented Undergraduates into Genomic Fields to Enhance Diversity (R25 Clinical Trial Not Allowed) (see here).

See more microbiome funding opportunities **here**

Highlighted Recent DMC Publications

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Comparative performance and technoeconomic analyses of two microalgae harvesting systems evaluated at a commercially relevant scale https://scholars.duke.edu/individual/pub1515835

Commentary on "Guidelines for the provision of nutrition support therapy in the adult critically ill patient: The American Society for Parenteral and Enteral

Nutrition" https://scholars.duke.edu/display/pub1515609

Cause, Epidemiology, and Histology of Polyps and Pathways to Colorectal

Cancer. https://scholars.duke.edu/display/pub1513265

Home-Based Hematopoietic Cell Transplantation in the United

States. https://scholars.duke.edu/display/pub1506925

Integrated autolysis, DNA hydrolysis and precipitation enables an improved bioprocess for Q-

Griffithsin, a broad-spectrum antiviral and clinical-stage anti-COVID-

19 candidate. https://scholars.duke.edu/display/pub1513443

Mirror, Mirror, on the Wall, Who Is the Fittest of Them All? A Novel Prediction Model for

Postoperative Hepatic Decompensation in Patients With Cirrhosis.

https://scholars.duke.edu/display/pub1499689

Jobs Listing

The David Lab is recruiting a Technician II to help develop genomic techniques for studying human diet. Interested applicants are encouraged to apply <u>here</u>

-Postdoctoral Research Scholar - PMBApplicant required documents: Cover Letter, CV, and

Contact information for three (3) professional references. Full job posting can be found here.

-Position opportunity: Scientist to lead projects in Metagenomics and computational microbiology at <u>Arcadia Science</u>: <u>Learn more</u>

-Research Technician - Plant & Microbial Biology; Fully job posting can be found here

Please take a moment to help us identify stellar candidates for our current search for a Researcher (equivalent to Full Professor) of Biosciences in the Pacific Biosciences Research Center (PBRC) at the University of Hawai'i at Mānoa. More details can be found here:

https://www.schooljobs.com/careers/hawaiiedu/jobs/3495963/researcherequivalent-to-full-professor-of-biosciences-posn-82743?

keywords=Researcher&pagetype=jobOpportunitiesJobs as well as below. The Pacific Biosciences Research Center (PBRC), an Organized Research Unit at the University of Hawai'i at Mānoa (UHM) invites applications for a tenure-track faculty position in PBRC. We seek applicants whose research focuses on integrative microbiome science such as the complex interactions of environmental microbial communities, microbes in symbiosis with other microbes, protists, plants or animals. Research foci should be viewed as inclusive of a wide range of fields and study systems such as: microbial ecology, marine biology, molecular and cellular biology, computational biology, theoretical ecology, biogeochemistry, physiology, evolutionary biology, bioinformatics, -omics, model organisms and/or natural study systems. Ideally the candidate's research will straddle multiple disciplines and engage a range of approaches to address pressing questions in microbiome science.

The successful candidate will join a faculty with diverse research interests spanning cellular and molecular biology, developmental biology, neurobiology, host-environment-microbe interactions, evolutionary biology, and ecology, with an emphasis on the terrestrial and marine biota of Hawai'i and the Pacific. Applicants must have a Ph.D. in biology or a related field, a record of

outstanding research productivity, evidenced by publications in major international journals and extramural federal funding, and have a minimum of four years university experience at the rank of associate professor or equivalent. Components of this position will include a leadership role in the UHM Integrative Center for Environmental Microbiomes and Human Health (ICEMHH), an NIH P-20-funded Center of Biomedical Research Excellence (COBRE), inclusive of scientific and administrative oversight to the Junior Investigators and Core Facilities supported by the COBRE P-20, as well as seeking extramural funding to expand/complement the ICEMHH. Teaching responsibilities will include a minimum of one course per year. Desirable qualifications include a collaborative research program that would take advantage of the department's focus on the Hawaiian biota and integrate with researchers in the ICEMHH COBRE and the Center for Microbiome Analysis through Island Knowledge and Investigation (C-MĀIKI). Additional details can be found under position no. 82743 at:

https://www.schooljobs.com/careers/hawaiiedu/jobs/3495963/researcher-equivalent-to-full-professor-of-biosciences-posn-82743?
keywords=Researcher&pagetype=jobOpportunitiesJobs

To apply, please submit a concatenated .pdf through NeoGov that includes: a cover letter indicating your research and teaching interests and how you satisfy the minimum and desirable qualifications; a detailed resumé; three publications; and the names and contact information (including email address) for three professional references. Review of applications will begin May 16, 2022 and continue until the position is filled. The University of Hawai'i is an Equal Opportunity/Affirmative Action Institution and encourages applications from women and minority candidates.





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