



Duke Microbiome Center

Winter 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](#).

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A Message from the Director

Dear DMC Community,

In this newsletter, we're pleased to share several important announcements and updates. I encourage you to take a minute to browse the sections below and I anticipate you'll find something that will interest you. For example, here are a few important news items that are described in greater detail in the newsletter below:

- We are pleased to announce **two new RFAs** for DMC grant programs: [Duke Microbiome Center Development Grants](#) due by April 20, and [Duke Cancer Institute / Duke Microbiome Center Joint Partnership Pilot Award](#) due March 14. See below for more information.
- The next **DMC Seminar Series** speaker is [Gilberto E. Flores, Ph.D.](#), Associate Professor of Biology, California State University, Northridge on Monday, February 21, 2022 at 4PM. See below for more information.
- Thanks to those of you attended seminars associated our [faculty search in partnership with the Department of Biochemistry](#) over the past couple of months. We will be inviting top candidate(s) back for second interviews soon.
- Faculty, please mark your calendar for our next **DMC Faculty Meeting** at 1PM on 25 April 2022.

I also want to update you on several recent changes to multiple core facilities that service the DMC community. Over the past several years, the DMC community has benefitted from strong collaborative relationships between several Duke School of Medicine Shared Resources: Microbiome Core Facility (MCF), Genomic Analysis and Bioinformatics (GAB), and Sequencing and Genomic Technologies (SGT). Over the past year, those cores have experienced significant changes. GAB Director David Corcoran resigned in summer 2021, and GAB closed permanently soon thereafter. SGT Director Nicolas Davos resigned in fall 2021, and MCF Director Holly Dressman accepted dual role as SGT Director in late fall 2022. Dr. Dressman resigned shortly thereafter in early January 2021. I'm very pleased to say that So Young Kim (Director of Functional Genomics Core) has accepted dual role as new MCF director starting January 2022. If you would like to discuss your project with So Young, please email the MCF [here](#). Under Dr. Kim's leadership, the DMC community will continue to benefit from services for microbiome sample processing and sequencing library production in the MCF which can then be sent to SGT for sequencing. DMC leadership and other stakeholders are working now to reestablish bioinformatic resources and services for amplicon and shotgun sequencing data. Later this spring, we hope to be able to announce those new resources. To help build awareness and community

around those bioinformatic resources, we plan to start a new "Microbiome Bioinformatics Interest Group". If you are interested in being involved in that interest group, please send your name to [Cindy Wicker](#).

Finally, I'll be taking a short sabbatical from April through September this year. I'm grateful to Dr. Lawrence David for serving as Interim Director of the DMC while I'm away during that time.

Sincerely,
John F. Rawls
Director, Duke Microbiome Center

[Duke Microbiome Center Development Grant RFAs now open](#)

The DMC is pleased to announce two requests for applications:

Duke Cancer Institute / Duke Microbiome Center Joint Partnership Pilot Award

The Duke Cancer Institute and Duke Microbiome Center are collaborating to award one development grant at the intersection of cancer and the microbiome. All requirements for this award are identical to the [DCI's Translational and/or Collaborative Research 2022 Spring Pilot RFA](#) with the additional requirements that (a) the PI or one of the co-PIs must also be a [member of the DMC](#), (b) the project must support interdisciplinary and collaborative research projects in cancer and the microbiome sciences at Duke University, and (c) the research strategy document must state "DCI/DMC collaborative award" after the title (see submission guidelines in the [program announcement](#)). Note that these proposals will be considered for both traditional DCI pilot funding as well as DCI/DMC funding, but will only be eligible for one funding award. For more information, see the [webpage](#) and [program announcement](#). The deadline for proposals to this RFA is Monday, 14 March 2022.

Duke Microbiome Center Development Grants

The Duke Microbiome Center Development Grants is now open for applications. Duke Microbiome Center Development Grants will have a one-year term, from 1 July 2021 – 30 June 2022. Each proposal may request a 1-year budget of up to \$50,000, inclusive of all costs. Budgets are

exempt from G&A, with the exception of any subcontracts which would require normal F&A costs. The DMC expects to fund up to two proposals this cycle. For more information, see [the program announcement](#). The deadline for proposals to this RFA is Wednesday, 20 April 2022.

[So Young Kim named Director of the Microbiome Core Facility](#)



We are pleased to announce that So Young Kim, PhD, has been named as the new director of the [Microbiome Core Facility](#), effective January 8, 2022.

Dr. Kim is a research professor in the Department of Molecular Genetics and Microbiology and has been on the School of Medicine faculty since 2010. She also serves as the facility director of the [Functional Genomics Core Facility](#), which she will continue to lead. Dr. Kim's expertise in providing start-to-finish project support to Duke researchers will ensure a seamless leadership transition to the Microbiome Core Facility, including consultations and planning services.

We would also like to thank Holly Dressman, PhD, for her leadership of the Microbiome Core Facility since its inception in 2018 and for her 21 years of service at Duke University. Dr. Dressman also stepped down as the director of the [Sequencing and Genomic Technologies \(SGT\) Core Facility](#). Laura-Leigh Rowlette is serving as the interim point of contact for SGT.

[Briana Davis is the recipient of the DMC Diversity Matters Award](#)



The [Duke Microbiome Center \(DMC\)](#) leadership team is happy to announce that recipient of the 2022 DMC Diversity Matters Award is Briana (Bri) Davis. The DMC is committed to advancing diversity, equity, and inclusion as fundamental to our center's success and excellence (read more [here](#)). Our ability to achieve these ends relies on the initiative, leadership, and engagement of our center members. Launched in 2020, the annual [Diversity Matters Award](#) is designed to recognize individuals within the DMC that have made significant advances towards these ends within Duke and our broader scientific and geographic communities. We are very happy to recognize Briana as the recipient of this year's DMC Diversity Matters Award for their contributions described below.

Briana Davis' receipt of the DMC Diversity Matters Award recognizes the vision, leadership, and generosity she has displayed in developing and implementing a new professional development program called Science Career Investigation and Professionalism Training (SCRIPT). Briana is a Ph.D. candidate in the Molecular Genetics and Microbiology Program at Duke University in the lab of Dr. John Rawls, and she is also an alumna of North Carolina Central University (NCCU), a historically black university. Briana perceived herself as uniquely positioned to build collaborative connections between these two institutions. In the midst of the COVID-19 pandemic, Briana made the choice to create community, to turn outward, and to build bridges for others, specifically within the NCCU and Duke communities in Durham. Towards the explicit goal of increasing diversity in STEM professions, Briana discerned a need to increase opportunities to increase awareness among under-represented minority college students about different scientific careers, and thereby increase the chances of them accessing and pursuing those career paths. Briana first organized discussions with key stakeholders from NCCU and Duke, including leadership from the Duke BioCoRE Program and IDEALS Office. Those conversations informed the design of a summer program aimed to (1) increase exposure of NCCU undergraduate students to scientific careers, and (2) increase mentorship opportunities for NCCU undergraduates. The inaugural SCRIPT program was hosted during summer 2021 and consisted of four major training workshops for students, with the first three sessions dividing their time between

a professional development workshop led by NCCU and Duke faculty on skills relevant to scientific careers, followed by panels featuring guests representing different STEM career paths. The final session was an opportunity to network with all previous career panelists about their experience, with the addition of new featured guests as well. As a leader on this initiative, Briana recognized that building mutual respect and trust among partners required team efforts at both universities to recognize their respective traditions. Receiving critical feedback from faculty and students was essential to guide the core components of the SCRIPT program including the selection of STEM career topics and invited guest speakers. Briana's experience shows us that leading and fostering meaningful relationships with others is not only about bringing your ideas to the table, but also a willingness to adapt those ideas to uplift the common goal. For her vision, leadership, and generosity bringing the SCRIPT program to Duke and NCCU, Briana Davis is a deserving recipient of this 2022 DMC Diversity Matters Award.

The next nomination cycle for the DMC Diversity Matters Award will be announced in fall 2022. For further details on this award mechanism, go [here](#).

[Upcoming School of Medicine Genomic Seminar Series hosted by the Precision Genomics Collaboratory](#)

“Creating the Fourth Chapter of Human Genomics”

Eric Green, M.D., Ph.D.

Director, National Human Genome Research Institute

Monday, February 21, 4 - 5 PM

103 Bryan Research & live streamed

To attend in person, please [register here](#)

Zoom link will be sent by email through the Collaboratory listserv prior to seminar

Abstract:

The coming decade offers great promise for the field of human genomics. The growing insights gained from early studies of DNA and, in particular, the molecular biology revolution laid the foundation for the launch of the Human Genome Project just over three decades ago. Since then, genomics has become progressively entrenched within the bedrock of the biomedical

research enterprise. Capitalizing on the momentum of the project's successful completion in 2003, the field of genomics has since expanded and matured substantially, such that genomics now regularly plays a central and catalytic role in basic and translational research, and studies increasingly demonstrate the vital part that genomic information can play in clinical care. Looking ahead, the anticipated advances in technologies, biological insights, and clinical applications (among others) will lead to more widespread dissemination of genomics throughout biomedical research, a growing adoption of genomics into medical and public-health practices, and an increasing relevance of genomics in everyday life. To capitalize on these opportunities, the National Human Genome Research Institute is working to develop and implement new programs and initiatives that will help create the latest chapter in human genomics, with a particular emphasis on making genomics broadly and equitably integrated in medicine.

[Funding Opportunities through the DMC](#)

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

[DMC Rolling Voucher Program](#): 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 [Duke University School of Medicine's many core facilities](#), and applicants are required to contact the directors of these shared resources to develop project budgets. Learn more [here](#).

[IBIEM Co-Director Dr. Joseph Graves Publishes Book "Race Not Racism"](#)

Joseph Graves, Ph.D., Professor at North Carolina A&T University and Co-Director of the Duke/NCA&T IBIEM training program, has recently published a book entitled ["Race Not Racism"](#) along with co-author Alan Goodman. This book was discussed briefly in our most recent Microbiome Reading Group. In this book, these two distinguished scientists tackle common misconceptions


about race, human biology, and racism, explaining the differences between social and biological notions of race. Drawing on evidence from both natural and social science, Graves and Goodman dismantle the malignant myth of gene-based racial difference. This book recently received positive [reviews](#) in *Science*.

[Spotlight on Duke AI Health](#)

Duke Artificial Intelligence (AI) Health supports theoretical and applied research on artificial intelligence and machine learning at Duke University to address urgent and difficult challenges in medicine and population health. Designed as a multidisciplinary, campus-spanning initiative, AI Health harnesses expertise and insights across multiple schools, centers, and institutes at Duke to bring to bear the power of machine learning and related quantitative fields on medicine, healthcare delivery, and the health of individuals and communities. Many of the tools and resources offered by AI Health may be of interest to DMC members. To register for the Duke AI Health newsletter and stay updated on their many programs, you can register here:

https://lists.duke.edu/sympa/subscribe/aihealth_news. Here are just some of the interesting resources currently offered by Duke AI Health: Data Analytics Community: This is a virtual focus for Duke investigators interested in applying AI science and applying best practices. It is primarily based in Microsoft Teams, which has formed a very robust community and connections to group discussions: <https://bit.ly/3HgR6Yu> Data Science Fellowship Program: A 2-year training program in data science with direct application for healthcare, designed for early-career data scientists with strong backgrounds in quantitative disciplines.

AI Health Data Studios: A multi-part series designed for campus-based researchers at Duke who are interested in partnering with medical data but aren't sure where to begin. To learn more and register, go here: <https://aihealth.duke.edu/2022springdatastudios/>. AI Health Proposals Studios (new RFA coming spring 2022): Facilitates access for Duke investigators to state-of-the-art data science resources and national leadership and expertise. Provides a pathway for small internally-supported analyses into larger external opportunities. Successful proposals may receive support from Duke AI Health in grant proposal development.



[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. Our next speaker on February 21, 2022 will be [Gilberto E. Flores, Ph.D.](#), **Associate Professor of Biology, California State University, Northridge**. The complete schedule of speakers and location can be viewed [here](#).

DMC Microbiome Research-In-Progress Talks: This monthly research-in-progress series is held on *first* Mondays at 4PM. Until further notice, these meetings will be held by Zoom only. It is open to the entire DMC community. The schedule of speakers and location can be viewed [here](#). If you would like to present your work in a future DMC Microbiome Research-In-Progress meeting, please contact [Cindy Wicker](#).

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

Please mark your calendars!

[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. [here](#).

[Upcoming Conferences and Workshops](#)

For a full list of upcoming microbiome conferences, click [here](#).

[Highlighted Microbiome Funding Opportunities](#)

Development of Microbiome-Related Approaches for Diagnosis/Mitigation/Treatment of Radiation Injuries (U01 Clinical Trial Not Allowed). See solicitation for details (see [here](#)).

Modulating Human Microbiome Function to Enhance Immune Responses Against Cancer (R21 Clinical Trial Not Allowed). See solicitation for details (see [here](#)).

Microbial-based Cancer Therapy -Bugs as Drugs (R01 Clinical Trial Not Allowed). See solicitation for details (see [here](#)).

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

See more microbiome funding opportunities [here](#)

[Highlighted Recent DMC Publications](#)

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The Urinary Microbiome in Postmenopausal Women with Recurrent Urinary Tract Infections.

<https://scholars.duke.edu/display/pub1487602>

Community dynamics of soil-borne fungal communities along elevation gradients in neotropical and paleotropical forests <https://pubmed.ncbi.nlm.nih.gov/35080063/>

Conceptual Exchanges for Understanding Free-Living and Host-Associated Microbiomes <https://pubmed.ncbi.nlm.nih.gov/35014872/>

Enterococcus Intestinal Domination is Associated with Increased Mortality in the Acute Leukemia Chemotherapy Population <https://pubmed.ncbi.nlm.nih.gov/34928341/>

Heterospecific Neighbor Plants Impact Root Microbiome Diversity and Molecular Function of Root Fungi <https://pubmed.ncbi.nlm.nih.gov/34803937/>

Microbial influences on gut development and gut-brain communication <https://pubmed.ncbi.nlm.nih.gov/34758081/>

See more DMC publications [here](#).

[Jobs Listing](#)

Position opportunity: Assistant Professor in Microbial Physiology at NCSU:

[Learn more](#)



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