

RESEARCH CAREER DEVELOPMENT NEWSLETTER

WEBSITE: <http://medschool.umaryland.edu/career>

February 2019

The **Research Career Development Program (RCD)** offers workshops, classes and seminars in subjects that are crucial to an academic research career, including Grant Writing, Publishing Your Research and Identifying Funding Sources for Your Research. In addition, RCDP offers symposia on professional skills development, including Scientific Leadership & Professional Development. To view the events and services offered by RCD and upcoming grant deadlines etc., please visit: <http://medschool.umaryland.edu/career/>.

UPCOMING EVENTS

Defining Your Project on Paper: Developing Your Research Question, Hypothesis, and Specific Aims

Two sessions available:

Wednesday, February 6
10:00 – 12:00pm

685 W. Baltimore Street, MSTF Building, Room 321

Tuesday, March 5
10:00 – 12:00pm

685 W. Baltimore Street, MSTF Building, Room 316

Explaining the fundamental idea of your research project on paper is essential for writing grants. The purpose of this workshop is to help faculty in composing and clearly describing their underlying research question, hypothesis, and specific aims. The first hour of the session will be a lecture including tips for developing your research question and how to progress to defining your hypothesis and specific aims. During the second hour of the session, participants will have the opportunity to discuss drafts of their research question or specific aims.

Speaker:

Marey Shriver, PhD, Director, Office of Research Career Development, UMSOM

Registration required online at: <http://registrationrcdp.eventbrite.com>

Identifying Funding Sources for Faculty

Tuesday, February 26
9:00 – 10:00am

685 W. Baltimore Street, MSTF Building, Room 316

This interactive workshop, given by **Stacie Mendoza**, *Program Director*, will assist faculty in identifying non-NIH sources of funding for their research. Topics will include:

- Comprehensive introduction to various funding resources, including searchable databases and useful websites
- Helpful tips for identifying sources of funding
- Interactive demonstration using funding databases

Registration required online at: <http://registrationrcdp.eventbrite.com>

Corporate Funding Seminar

Friday, March 1
1:00 – 2:00pm

660 W. Redwood Street, Howard Hall, Room 224
(Epi conference room)

This seminar will provide an overview of the range of SOM's corporate funding projects and describe state programs that help pay for collaborations with Maryland companies.

Other topics include:

- Difference between corporate funding and federal funding
- Confidentiality Agreements
- Material Transfer Agreements
- Developing a Scope of Work and Budget with a potential corporate sponsor
- Submitting information to UMB's Center for Clinical Trials and Corporate Contracts (CCT) via UMBiz
- CCT's processes and how the PI can track its progress

Target audience: UMB faculty and postdocs considering the pursuit of corporate funding sources for their research.

Speakers:

Michael Rollor, MBA, PhD, Associate Vice President, Center for Clinical Trials & Corporate Contracts, UMB

Philip Robilotto, DO, MBA, Chief Commercialization Officer, UM Ventures Baltimore, Associate Vice President, Office of Technology Transfer, UMB

Registration required online at: <http://registrationrcdp.eventbrite.com>

Funding Opportunities through the US Department of Veteran Affairs (VA)

Tuesday, April 30
1:00 - 2:00pm

621 W. Lombard Street, SMC Campus Center, Room 351

The US Department of Veteran Affairs (VA) offers a number of funding opportunities available to faculty and postdocs. This seminar will introduce participants to the various types of grant applications available through the VA, including eligibility requirements, tips for applying, and insights into the review process. Recent VA awardees will also share their personal experiences with applying and receiving a VA award.

Speakers:

Carol Fowler, PhD, Deputy Associate Chief of Staff, Research and Development VA Maryland Health Care System

France Carrier, PhD, VA Research Health Scientist at the VAMHCS; Professor, Department of Radiation Oncology, UMSOM

Samantha Hack, PhD, LGSW, Research Health Scientist, Department of Veterans Affairs VISN 5 Mental Illness Research, Education, and Clinical Center

Registration required online at: <http://registrationrcdp.eventbrite.com>

SCIENTIFIC WRITING: Monthly Seminar Series

Scientific Writing: Monthly Seminar Series

Thursdays (September 2018 – June 2019)

9:00 – 10:00am

The purpose of this seminar series is to help faculty, fellows and postdocs write clear, well-organized scientific papers. The series consists of ten (10), 1-hour stand-alone sessions, each of which focuses on an important aspect of scientific writing. Registration is available for the following two sessions. Dates and subjects for the monthly sessions are outlined below and will be described in detail in subsequent newsletters.

Please note: faculty, fellows and postdocs are welcome to attend every session in the series or single sessions of interest.

Please register for each session in the series.

Writing Effective Titles and Abstracts

Thursday, February 14

9:00 – 10:00am

621 W. Lombard Street, SMC Campus Center, Room 351

Effective titles and abstracts are key components of a scientific paper, as these two parts of the paper are read most often and are also the basis for searches. This session focuses on how to write an interesting and informative title and abstract, including tips on writing style. This session begins with a didactic session (20 minutes), followed by an examples-driven discussion (40 minutes).

If any participants would like to submit an abstract for discussion, please email a draft to the speaker, Wendy Sanders, at Wsanders@som.umaryland.edu by February 8.

Speakers:

Wendy Sanders, MA, Associate Dean, Office of Research Career Development, UMSOM

Marey Shriver, PhD, Director, Office of Research Career Development, UMSOM

Registration required online at: <http://registrationrcdp.eventbrite.com>

Responding to Reviewers

Thursday, March 14

9:00am – 10:00am

621 W. Lombard Street, SMC Campus Center, Room 210

The ability to effectively respond to reviewers is an important aspect of resubmitting a research paper, and having it accepted for publication; however, this process can be a daunting task. During this session, participants will receive helpful advice on how to best respond to reviewers' comments when resubmitting a research paper.

Speaker: Stefanie Vogel, PhD, Professor, Department of Microbiology and Immunology, UMSOM

Registration required online at: <http://registrationrcdp.eventbrite.com>

SAVE THE DATE!

SCIENTIFIC WRITING: Monthly Seminar Series

Please mark your calendar for the following scheduled sessions on **Thursdays, 9-10am**. **Please note:** The room location has changed for the remaining sessions. Please see the sessions and locations below: Registration information will be announced in future newsletters.

Apr 11: Tips for Scientific Writing, with a focus on clarity
(Howard Hall, Room 224)

May 9: TBD
(SMC Campus Center, Room 210)

Jun 13: TBD
(Howard Hall, Room 224)

MANAGING YOUR RESEARCH PROGRAM: Monthly Seminar Series

Managing Your Research Program: Monthly Seminar Series Tuesdays (September 2018 – June 2019) 9:00 – 10:00am

621 W. Lombard Street, SMC Campus Center, Room 351

The purpose of this new seminar series is to support faculty, fellows and senior postdocs who are either new to leading a research team or are interested in honing their leadership skills. This new monthly seminar series consists of ten (10), 1-hour stand-alone sessions, each of which focuses on a subject/skill set that is important to successfully developing and managing a research program/team. Registration is available for the following two sessions. Dates and subjects for the monthly sessions are outlined below and will be described in detail in subsequent newsletters.

Please note: faculty, fellows and postdocs are welcome to attend every session in the series or single sessions of interest.

Please register for each session in the series.

Staffing Your Lab Tuesday, February 19 9:00 – 10:00am

621 W. Lombard Street, SMC Campus Center, Room 351

Staffing your lab with the right people is one of the most important things you can do to manage a successful research program. This session focuses on making the best hiring decisions, beginning with tips on how to attract postdocs and techs to your lab, which can be challenging if you are an early stage investigator. This session will provide advice on how to interview and evaluate applicants. The session will conclude with advice for handling staffing situations that aren't working, including how to handle terminating an employee's contract, which is always difficult – and hopefully can be avoided by identifying and recruiting the best employees at the outset."

Speaker: Eric Sundberg, PhD, Professor, Departments of Medicine and Microbiology & Immunology, UMSOM

Registration required online at: <http://registrationrcdp.eventbrite.com>

Financing Your Research Tuesday, March 19 9:00 – 10:00am

621 W. Lombard Street, SMC Campus Center, Room 351

A challenging and crucial aspect of leading a research lab or program is the need to fund your research/program. Given the current competitive funding rates, this responsibility can be even more challenging. During this session, participants will hear from two academic research scientists who have learned how to finance their programs by applying for funding from diverse sources, including the NIH, foundations and corporate funding. This session will begin by helping faculty understand how to develop a budget for their research lab or program, and will then address how to diversify your sources of funding. This session will address issues relevant to both preclinical and clinical research labs and programs, and will include tips for dealing successfully with some of the current challenges in funding.

Speakers:

Norann Zaghoul, PhD, Associate Professor, Department of Medicine, Division of Endocrinology, Diabetes and Nutrition, Program in Personalized and Genomic Medicine, UMSOM

Daniel Morgan, MD, MS, Associate Professor, Department of Epidemiology and Public Health/Infectious Diseases, UMSOM

Registration required online at: <http://registrationrcdp.eventbrite.com>

SAVE THE DATE!

MANAGING YOUR RESEARCH PROGRAM: Monthly Seminar Series

Please mark your calendar for the following scheduled sessions on **Tuesdays, 9-10am** at the **SMC Campus Center, Room 351**. Subjects are identified below and registration information will be announced in future newsletters.

Apr 16: Negotiating Skills

May 21: Setting Up Collaborations, Networking, Getting the Most from Meetings & Conferences

Jun 18: Planning for Promotion

HS/HS LIBRARY Scholarly Publishing Workshop Series

This February, the Health Sciences and Human Services (HS/HS) Library will be hosting a Scholarly Publishing Workshop Series. **All workshops will be held in room LL03 on the library's lower level (601 W. Lombard Street)**

[Choosing the Right Journal for Your Research](#)

Tuesday February 5, 12:30-1:30pm

Do you struggle with finding a journal that's the perfect fit for your research? We can help! In this workshop we will discuss a few tools and strategies you can use to identify the journal that best matches your work. Feel free to come with a current manuscript or just to learn approaches for the future.

[Open Access and Predatory Publishing](#)

Wednesday February 6, 12:30-1:30pm

Are you confused about different models of Open Access publishing? Are you wondering if Open Access journals are trustworthy? Are you trying to locate a legitimate Open Access journal to submit your manuscript? In this workshop we will talk about what Open Access is, why you should consider publishing in an Open Access journal, how to evaluate a reputable publisher, and how to differentiate predatory journals and publishers.

[Enhancing Your Research Impact](#)

Thursday February 7, 12:30-1:30pm

This workshop will walk you through methods for enhancing the impact of your research. Topics will include establishing your scholarly identity, making strategic publishing decisions, and enhancing the discoverability of your work.

[The Health Sciences and Human Services Library's subscription to RefWorks will end on June 30, 2019.](#)

There are many options for transitioning to other citation management systems. To read more about the tools that are available, visit our [website](#) explaining three alternate citation managers, EndNote, Zotero, and Mendeley. Please note that while EndNote is a paid software, some departments provide licenses for their faculty. Please contact your department's IT representative for more information on installing any new software.

To learn more about the citation managers available, please consider attending these upcoming workshops:

Which Citation Manager is Right for Me?

- Tuesday, February 12 1-1:30pm, HS/HSL room LL03
- Tuesday, March 5 1-1:30pm, HS/HSL room LL03
- Thursday, March 21 11-11:30am Howard Hall 450

Managing Citations Using EndNote

- Wednesday, February 13 12-1pm online
- Thursday, March 7 2-3pm online

Managing Citations Using Mendeley

- Wednesday, February 27 12-1pm HS/HSL room LL03

Managing Citations Using Zotero

- Tuesday, February 19 12-1pm online

Register online at:

<http://www2.hshsl.umaryland.edu/hshsl/workshops/register.cfm>

Registration is encouraged but not required.

Questions? Please contact **Andrea Shipper** at ashipper@hshsl.umaryland.edu

UM CENTER FOR RESEARCH ON AGING Aging Research Symposium

The University of Maryland Center for Research on Aging Presents:
An Aging Research Symposium

NIA Enters a New Age: Aging Research Questions and the Opportunities Available to Address them

Monday, March 4, 2019

1:00 - 4:30 PM

(reception to follow)

Leadership Hall
Health Sciences Research Facility (HSRF) I
University of Maryland School of Medicine
685 W. Baltimore Street

Speaker

Richard Hodes, MD, Director of the National Institute on Aging (NIA) at the National Institutes of Health (NIH)

Registration

Please use the link below to submit an abstract for the poster session and/or register to attend.

<http://www.medschool.umaryland.edu/research-centers/Center-for-Research-on-Aging/Symposiums/Aging-Research-Symposium/>

Register/Poster Submission

Abstract deadline: February 4, 2019

Registration Deadline: March 1, 2019

Poster session is open to faculty and trainees highlighting aging related research.

For more information, please contact Anne Sullens at asullens@som.umaryland.edu

Clinical and Translational Research Training

Applications for **Master of Science in Epidemiology and Clinical Research – Clinical Research Track** and the **Certificate Program in Clinical Research** are now being accepted by the Graduate School.

Both are designed specifically to meet the needs of clinicians and scientists who want further education and training to develop a successful career as a clinical and translational investigator. Graduates will gain the ability to identify important clinical research questions, develop research protocols, generate pilot data, conduct clinical research, analyze and write the results in a publishable form and develop and submit grant proposals. Former students include faculty members (particularly those on or applying for career development awards), fellows, residents and medical and dental students.

Please see the details and application deadline for each below:

MASTER OF SCIENCE IN EPIDEMIOLOGY AND CLINICAL RESEARCH – CLINICAL RESEARCH TRACK

- 30 credits
- Eligible for tuition remission
- Designed for clinicians and clinicians-in-training wanting to develop a successful clinical research career

APPLICATIONS DUE: February 15, 2019

For more information, visit:

<http://www.medschool.umaryland.edu/k30/Master-of-Science-in-Epidemiology-and-Clinical-Research--Clinical-Research-Track/>
In particular, read the "Frequently asked questions" for each.

CERTIFICATE PROGRAM IN CLINICAL RESEARCH

- 12 credits
- Eligible for tuition remission
- For clinicians and scientists who do not have time to do a full MS but need to gain skills not covered in their health profession or graduate education

APPLICATIONS DUE: March 1, 2019

For more information, visit:

<http://www.medschool.umaryland.edu/k30/Certificate-Program-in-Clinical-Research/>

In particular, read the "Frequently asked questions" for each.

For an individual consultation on whether this is appropriate for you, please contact:

Kristen Stafford, MPH, PhD kstafford@ihv.umaryland.edu

Dan Morgan MD, MS dmorgan@som.umaryland.edu

Mary-Claire Roghmann, MD, MS Mroghmann@som.umaryland.edu

NIH Grant Application Changes: Effective January 2019

The NIH recently announced modifications to the required presentation of Rigor & Reproducibility in grant applications, effective for all NIH grant applications beginning in January 2019. The website describing these changes is below, followed by a brief description of the changes.

<https://grants.nih.gov/policy/reproducibility/index.htm>

1. The rigor of the prior research

A careful assessment of the **rigor of the prior research** that serves as the key support for a proposed project helps to identify weakness or gaps in a line of research. NIH expects applicants to describe the general strengths and weaknesses in the rigor of the prior research (both published and unpublished) that serves as the key support for the proposed project. It is expected that this consideration includes attention to the rigor of the previous experimental designs, as well as the incorporation of relevant biological variables and authentication of key resources. Applicants are expected to include plans to address any weaknesses or gaps identified.

2. Rigorous experimental design for robust and unbiased results

Scientific rigor is the strict application of the scientific method to ensure robust and unbiased experimental design, methodology, analysis, interpretation and reporting of results. NIH expects full transparency in proposing and reporting experimental details so that reviewers may assess the proposed research and others may reproduce and extend the findings.

Individual Consultations (RCD)

GRANT APPLICATION/SUMMARY STATEMENT CONSULTATIONS

Wendy Sanders, MA, Associate Dean for Research Career Development, is available to meet with junior faculty regarding how to plan and develop NIH grant applications. In addition, Ms. Sanders is available to discuss eligibility for various NIH applications. Finally, Ms. Sanders is also available to discuss strategies for addressing summary statements/ revising a research grant application. **Email:** wsanders@som.umaryland.edu

RESEARCH QUESTION/HYPOTHESIS DEVELOPMENT CONSULTATIONS

Marey Shriver, PhD, Director for Research Career Development, meets with junior faculty regarding early project conception, including developing a clear research question and testable hypothesis. **Email:** mshriver@som.umaryland.edu

FUNDING SOURCE CONSULTATIONS

Stacie Mendoza, Program Director for Research Career Development, assists junior faculty and postdocs with identifying sources of funding for their research including how to navigate the NIH funding database. To schedule a funding consultation, complete a **Funding Search Request Form** online at <http://www.medschool.umaryland.edu/career/Grant-Funding-Consultation-Service/> **Email:** smendoza@som.umaryland.edu

Funding Opportunities ~ Upcoming Deadlines

MID ATLANTIC NUTRITION OBESITY RESEARCH CENTER (NORC)

Pilot/Feasibility Grants

Applicants for these awards must fulfill one of the following eligibility criteria:

1. New investigators without current or previous independent research funding from NIH;
2. Established investigators in the field of nutrition/obesity who are proposing a project that represents a significant departure from their previous/current work;
3. Established investigators in other fields who wish to apply their expertise to nutrition and obesity research.

LETTER OF INTENT (LOI) DUE: March 4, 2019 (by noon)

WEBSITE:

http://www.medschool.umaryland.edu/norc/pilot_feasibility/

SONTAG FOUNDATION

Distinguished Scientist Award

Through its annual Distinguished Scientist Award, the Sontag Foundation provides career and research support to early career scientists who have made significant advances in the field of brain cancer research.

APPLICATION DUE: March 13, 2019

WEBSITE: <http://www.sontagfoundation.org/all-grants/brain-cancer/>

MCKNIGHT ENDOWMENT FUND FOR NEUROSCIENCES

Memory & Cognitive Disorders Awards

The Memory & Cognitive Disorders Awards solve the problems of neurological and psychiatric diseases, especially those related to memory and cognition. The Awards encourage research aimed at translating laboratory discoveries about the brain and nervous system into diagnoses and therapies to improve human health.

LOI DUE: March 25, 2019

APPLICATION DUE: September 3, 2019

WEBSITE: <https://www.mcknight.org/programs/the-mcknight-endowment-fund-for-neuroscience/memory-cognitive-disorders-awards/>

FAHS-BECK FUND FOR RESEARCH AND EXPERIMENTATION

Faculty/Post-Doctoral Research Grant Program

Areas of interest to the Fund are: studies to develop, refine, evaluate, or disseminate innovative interventions designed to prevent or ameliorate major social, psychological, behavioral or public health problems affecting children, adults, couples, families, or communities, or studies that have the potential for adding significantly to knowledge about such problems.

DEADLINE: April 1, 2019

WEBSITE:

http://www.fahsbeckfund.org/pdf_files/Post_Doctoral_Guidelines.pdf

Foundation Funding Assistance

To learn more about foundation funding opportunities, individual funding searches, and assistance with foundation grant development and submission, please contact:

Ms. Sarah Bradley
Director, Foundation Relations
Office of Development
sbradley@som.umaryland.edu
410-706-0107

DEPARTMENT OF DEFENSE (DoD)

The DoD Congressionally Directed Medical Research Programs (CDMRP) have upcoming deadlines for the following programs:

- **FY19 Amyotrophic Lateral Sclerosis Research Program**
 - Therapeutic Development Award (*PRE-APP DUE: 3/22*)
 - Therapeutic Idea Award (*PRE-APP DUE: 3/22*)
- **FY19 Breast Cancer Research Program**
 - Breakthrough Award Levels 1 and 2 (*PRE-APP DUE: 3/14*)
 - Breakthrough Award Level 3 (*PRE-APP DUE: 3/12*)
 - Breakthrough Award Level 4 (*PRE-APP DUE: 3/12*)
 - Era of Hope Scholar Award (*PRE-APP DUE: 3/14*)
 - Innovator Award (*PRE-APP DUE: 3/12*)
 - Distinguished Investigator Award (*PRE-APP DUE: 3/12*)
 - Breakthrough Fellowship Award (*PRE-APP DUE: 3/14*)
- **FY19 Combat Casualty Care Research Program (JPC-6)**
 - Multi-Domain Lifesaving Trauma Innovations (MuLTI) Award (*PRE-APP DUE: 3/5*)
- **FY19 Peer Reviewed Medical Research Program**
 - Discovery Award (*PRE-APP DUE: 3/28*)
 - Clinical Trial Award (*PRE-APP DUE: 3/14*)
 - Focused Program Award (*PRE-APP DUE: 3/14*)
 - Investigator-Initiated Research Award (*PRE-APP DUE 3/14*)
 - Technology/Therapeutic Development Award (*PRE-APP DUE: 3/14*)

WEBSITE: <https://cdmrp.army.mil/funding/>

Free DoD Funding Info Webinars!

The Congressionally Directed Medical Research Programs (CDMRP) invites the research community to view a webinar series on funding opportunities in both research and career development. The first of these webinars "Funding Opportunities and Strategies for Success", participants will learn how to find the latest CDMRP funding opportunities, how to navigate a program announcement (funding opportunity announcement), and use what they learn to create a competitive application. Over the next four months, webinars covering topics from innovative research applications to clinical research will be published. **View the webinar schedule here:**

https://cdmrp.army.mil/pubs/Webinars/webinar_series

UMB Internal Grant Announcements

<http://www.umaryland.edu/ictr/funding/umb-internal-funding-highlights/>

UMGCC Funding Database (Cancer related research)

<https://umgccfundingopps.org/>

To receive weekly UMGCC funding announcements, contact:

Sarah Laye at SLaye@som.umaryland.edu

PLEASE NOTE: We strongly encourage faculty to discuss their research application plans with their supervisor/Chairman. For some applications, such as career development awards or foundation applications, approval of the Chairperson is required to apply.

CENTER FOR INNOVATIVE BIOMEDICAL RESOURCES (CIBR)

WEBSITE: <http://medschool.umaryland.edu/cibr>

The **Center for Innovative Biomedical Resources (CIBR)** is the administrative umbrella for the wide portfolio of core facilities UMSOM investigators have available to support their research. In addition to the cutting-edge services, instrumentation and expertise CIBR cores provide, CIBR also hosts seminars, workshops, symposia and an annual retreat.

CIBR News Update

2018 CIBR Travel Awards

Any Core facility director, manager, staff or administrator may apply for a travel award to help defer the cost of attending the 2019 ABRF meeting.

This year's Association of Biomolecular Resource Facilities (ABRF) meeting will be in San Antonio March 23-26, 2019. Learn more about the meeting here: <https://conf.abrf.org>

- Two award recipients will be selected by a committee.
- Each awardee will receive up to \$2,000 towards reimbursing the cost of attending the conference.
- CIBR Administration will reimburse the awardee's department via a transfer of funds (journal entry) for any allowable cost (Event registration, flight, lodging, etc.) related to attending this conference so long as back-up documentation is provided (as required by State and University policy).

Apply for a CIBR Travel Award here: <https://www.surveymonkey.com/r/HV8H5RT>

Lunch and Learn Series

Plan to attend the February Lunch and Learn, hosted by **Translational Laboratory Shared Service** featuring “**Modeling Disease from Mouse to Microbiome**” by **Philip Dubé, PhD, Senior Scientist, Taconic Biosciences**

It will be held on **Thursday, February 14** from **12:00 PM – 1:00 PM** in the **MSTF Atrium, 685 West Baltimore Street**.

Lunch will be provided!

This seminar is free but you must register: <http://tiny.cc/CIBRFeb>

CIBR Lunch & Learns are organized by the Center for Innovative Biomedical Resources (CIBR)

Spotlight on CIBR Resources

University of Maryland Medicine (UMM) Biorepository

The University of Maryland Medicine (UMM) Biorepository is a core service established by the University of Maryland School of Medicine's (UMSOM) Program for Personalized and Genomics Medicine (PPGM). The PPGM was initiated in 2011 to facilitate the development of an infrastructure for large-scale studies to empower basic and clinical researchers to make scientific discoveries and translate them to more effective diagnostics and therapeutics. The UMM Biorepository initiative was the result of two NIH-funded grants, a high-end shared instrumentation grant to purchase an integrated Hamilton Biorepository (BiOS) freezer system and a grant to renovate space to co-locate many of UMSOM's biomedical research core laboratories into what is now the Center for Innovative Biomedical Resources.

The UMM Biorepository offers UMSOM researchers the resources necessary for building biospecimen collections for their research. State-of-the-art, automated equipment provides a secure and managed environment for sample handling and includes the BiOS, an ultra-low temperature (-80°C) robotic freezer system, and two benchtop liquid handling robots that assist with sample aliquoting, assay preparation and extraction of DNA and RNA. Samples are uniquely identified and tracked throughout their stay in the Biorepository by 2D-barcodes located on the bottom of storage tubes.

Services provided by the UMM Biorepository involve processing, storage (-80°C and LN₂) and distribution of a broad range of biospecimens including, but not limited to whole blood for serum, plasma and/or buffy coat banking, urine banking and tissue banking. We also extract, quantitate and bank DNA and RNA from a variety of sources.

Contact **Dr. Coleen Dancott**, core director, to discuss how the UMM Biorepository services can be customized to support your research (410-706-8968, cdamcott@som.umaryland.edu).

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