



UNIVERSITY of MARYLAND  
SCHOOL OF MEDICINE

# CARTI

CENTER *for* ADVANCED RESEARCH TRAINING & INNOVATION

## **Basic Science Research Training Track Information Session**

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Basic Science Research Training Track Leader





# CARTI Basic Science Research Training Tracks



**Mission:** To increase the pool of basic scientists engaged in evidence-based research



**Format:** 6-month foundational training in developing and executing a mentored basic science research project



**Eligibility:** Be a senior fellow (MD, PhD, MD/PhD) or faculty member in an early-stage of their research career with some prior research experience, a mentor, and 20% protected time



**Orientation (1 day)**



**Didactic Instruction & Writing Instruction (2 months)**



**Grant Writing Instruction (2 month)**



**Experiential Learning & CARTI Writing Accountability groups  
(2 months)**



**Capstone Grant Application & Mock Study Section  
(3 month)**





# Eligibility Criteria

- Be a senior postdoctoral fellow (MD, PhD, MD/PhD) or faculty member in an early stage of their research career at the University of Maryland, Baltimore with some prior research experience.
- Have a research mentor(s)\* and existing basic science research project to serve as the basis for a grant application.
- Have a letter of support from your Department Chair guaranteeing at least 20% protected time (8 hours/week) to conduct training and research over a 6-month period.
- Have NOT served as a Principal Investigator on an NIH or federally funded research (R) or career development (K series) award, except those holding a K99/R00 award. Postdoctoral fellows awarded a K99 are still eligible to apply.



# Didactic Instruction & Scientific Communication Intensive

- Length of time: 2 months
- Time commitment: 8 hours/week
- Format:
  - Combination of synchronous, in person and zoom



# Basic Science Research Training Track

## Didactic Content

### Project Design & Implementation

Balancing Innovation & Feasibility

Rigor & Reproducibility

Writing an IACUC Protocol

Data Management & Sharing

Introduction to Coding

### Scientific Communication

Writing & Publishing a Manuscript

Critically Reviewing a Manuscript

Responding to Reviewers Critiques

Developing an Elevator Pitch

### Transition to Independence

Negotiating a Start-Up Package

Staffing Your Lab

Developing Mentoring Skills

Conflict Resolution

Building Effective Collaborations

Identifying Mentors & Sponsors



# Experiential Learning

- Length of time: at least 2 months
- Time commitment: 8 hours/week
- Format:
  - CARTI scholar works with mentor on finalizing a research protocol and/or beginning to execute a basic science research project
  - Participate in CARTI writing accountability groups





# Grant writing instruction and capstone grant application

- Length of time: 3months
- Time commitment: 8 hours/week
- Activities
  - Instruction on writing an NIH grant proposal
  - Write and present a grant proposal
  - Mock study section



# Application Process

- **Application due date: Friday, July 26th by 5:00pm EST**
- Required material:
  1. Cover page
  2. UMSOM curriculum vitae (CV)
  3. Personal statement (1-2 page(s))
  4. Preliminary summary of proposed research project to be completed during experiential learning component (1 page)
  5. Letter of support from research mentor
  6. Letter of support from the Departmental Chair



# Scholar Expectations

- Complete each element of the training schedule
- Complete individual development plan (IDP)
- Submit a grant application within 6 months of participation of the training track



# Scholar Target Grant Opportunities

- Alfred P. Sloan Foundation
- NARSAD (Brain and Behavior research Foundation)
- McKnight Foundation
- Klarman Family Foundation
- NIH Exploratory/Developmental Research Grant Program (R21)
- Transition to independence award (K99/R00)
- NIH Research Project Grant (R01)



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Awarding **NARSAD** Grants

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National Institutes  
of Health



# CARTI Basic Science Research Training Track Contacts

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