



## **The Case Medical Student Summer Research Program (MSSRP)**

**Supported by NIH/NIDDK 1T35DK111373-04**

**May – August, 2020**

### **Program Description and Goals**

The Case MSSRP provides a short-term experience for medical students to perform clinical or basic science research within topics related to the NIDDK mission, including digestive diseases, diabetes, metabolism and nutrition, nephrology, immunology and infectious diseases, GI oncology, and imaging technologies. Trainees perform original research under the guidance of a T35 faculty mentor.

#### **Students accepted to this program will...**

- Receive a generous stipend (2020 stipend levels have not been released at this time)
- Perform 8-weeks full-time (40 hours/week) summer research with the guidance of an experienced research mentor
- Attend and participate in weekly Journal Club
- Complete specialized training to gain exposure to current research methods, technologies and policies, including Responsible Conduct of Research course, overview of current NIDDK research projects happening at CWRU, UH and/or Cleveland Clinic, and project-specific training

#### **Advantages for Program Participants**

After completion of this T35 program, medical students shall be able to:

- Write research proposals, submit abstracts, prepare research posters, and practice oral presentation of research
- Demonstrate knowledge of technical laboratory skills
- Take advantage of multiple opportunities to present their projects through the Digestive Health Research Institute
- Continue their research projects either through completing another summer of research or through other avenues (joining their mentor's lab, MSTP program, etc.)

This 8-week T35 short-term summer research experience provides the trainee with significant exposure to methodologies of basic or clinical research and the process used to investigate important questions in biomedical research. Another strength of the program is the emphasis on exposure to new research methodologies and live demonstrations to complement didactic and research training. Our three-day hands-on research short-course (orientation) is highly innovative and will provide medical students with unique exposure and direct experience to cutting-edge basic and clinical research methods relevant to the NIDDK mission. The overall objective of the program is to encourage medical students to pursue careers as physician scientists.

#### **Application Link:**

<https://forms.gle/dUgn6yomBpQm3ZNW7>

## Program Dates

The dates below are tentative and subject to change at the discretion of the Co-PIs, and include longer-term opportunities to present research.

### Application Timeline

Date	Activity
December 20, 2019	Interest Application Due
January 17, 2020	Applications due for early decision
February 7, 2020	Early Decision made and communicated for early applicants
February 21, 2020	Regular Application due date
March 15, 2020	Decision made and communicated for regular applicants

### Program Timeline

Date	Activity
Early June 2020	Program Orientation
February – May 2020	Complete Required Research Training (Responsible Conduct of Research, IRB, Vertebrate Animals, Radioisotopes, etc.)
May 2019 – August 2020	Participation in 8 weeks of NIDDK-related research Attend Weekly Journal Clubs
September 2020	Oral and/or poster presentation at H. LePow Medical Student Research Day

### Future Research Opportunities

Date	Activity
September 2020	Option to attend Cleveland IDEAS Symposium, the bi-annual Cleveland DDRCC Research Symposium
April-May 2021	Presentation at Department of Medicine Research Day
2020/2021	Required four month research block can be used to further develop Case MSSRP Research Project, Elective research year (MSTP fellowship) available.

### Other Future Advantages for MSSRP Participants

After completion of the 8-week short-term summer research program, selected students will be encouraged by the Program Directors and their mentors to apply for **extramural short-term medical student research fellowships** (offered by the American Gastroenterological Association and the Crohn's & Colitis Foundation of America, etc.).

As part of the **CWRU SOM curriculum**, all medical students perform research during a **4-month block** in their 3rd or 4th year and write a thesis. Students will be encouraged to use this opportunity to continue to expand the T35-supported research that they performed throughout the Case MSSRP summer research experience between their 1st and 2nd year.

In addition, students will be well-positioned for the opportunity to also **apply for an MSTP fellowship**, which would support successful candidates to take a year off from medical school and perform 12 months of dedicated research in their mentor's laboratory.

**MSSRP MENTOR INFORMATION**  
**The Case Medical Student Summer Research Program (MSSRP)**  
**Supported by NIH/NIDDK 1T35DK111373-03**

The Case MSSRP primary faculty includes 26 productive and highly collaborative investigators from within the CWRU SOM and CCLCM-CWRU that all have active NIDDK-funded research programs in the areas of (1) digestive & liver diseases, (2) diabetes, (3) nutrition & metabolism, (4) kidney diseases, or (5) digestive, liver, & kidney imaging. The Case MSSRP faculty also includes an additional 13 secondary mentors, each of whom have highly active research programs that align with the NIDDK mission, but are currently funded through other NIH Institutes (i.e. NCI, NIAID, NIAAA, etc.). These investigators will provide their guidance, expertise, and career mentoring during the short-term summer research experience. Our primary and secondary faculty also include select junior faculty mentors who are new to mentoring trainees. Please see attachments for additional information on our mentors.

<b>NIDDK-Funded Primary Mentors</b>				
<b>GROUP 1: Digestive &amp; Liver Diseases</b>	<b>GROUP 2: Diabetes</b>	<b>GROUP 3: Metabolism &amp; Nutrition</b>	<b>GROUP 4: Kidney Diseases</b>	<b>GROUP 5: Digestive, Liver, &amp; Kidney Imaging</b>
Derek Abbott, MD, PhD	David Buchner, PhD*	Henri Brunengraber, MD, PhD	Leslie Bruggeman, PhD	Christopher Flask, PhD
Fabio Cominelli, MD, PhD	Rose Gubitosi-Klug, MD, PhD	Donna Driscoll, PhD	Stanley Hazen, MD, PhD	Vikas Gulani, MD, PhD
Gregory Cooper, MD, MPH	Richard Zigmond, PhD	Darcy Freedman, PhD, MPH*	John O'Toole, MD	Katherine MacRae Dell, MD
Mitchell Drumm, PhD		John Kirwan, PhD	Mahboob Rahman, MD	Gordon McLennan, MD
Claudio Fiocchi, MD		Maria Hatzoglou, PhD	John Sedor, MD	
Wendy Goodman, PhD*		Vincent Monnier, MD		
Lina Lu, MD				
Theresa Pizarro, PhD				
Takuya Sakaguchi, PhD*				
Parameswaran Ramakrishnan, PhD				
<b>NIDDK-Related Secondary Mentors</b>				
<b>GROUP 6: GI Cancers &amp; Tumorigenesis</b>	<b>GROUP 7: Metabolism &amp; Kidney Disease</b>	<b>GROUP 8: Inflammation &amp; Infection</b>	<b>GROUP 9: Imaging &amp; Other Diagnostic Technology</b>	
Amitabh Chak, MD	Timothy Kern, PhD	Donald Anthony, Jr, MD, PhD	Anant Madabushi, PhD	
Sanford Markowitz, MD, PhD	Laura Nagy, PhD	Robert Bonomo, MD	Jon C. Davidson, MD, FSIR	
	Thomas Hostetter, MD	Curtis Donskey, MD		
		Alex Rodriguez-Palacios, PhD, DVM*		
		Carlos Subauste, MD		