

Email completed form to cprisummer@uth.tmc.edu



SUMMER 2018: UTHealth-CPRIT UNDERGRADUATE INNOVATION IN CANCER PREVENTION RESEARCH FELLOWSHIP: MENTOR RESEARCH OPPORTUNITY

(This is a Word table; use Tab to go from one blank to the next)

Faculty Name Hongyu Miao, PhD

Phone: Office: 713-500-9587 Cell: 585-317-8572

Faculty E-mail Hongyu.Miao@uth.tmc.edu

School/Campus School of Public Health, Houston

Research Projects

Each fellow is expected to spend an average of 40 hours/week on their research project, organized seminars and innovation generation course

Applicants will click on the titles of projects they are interested in to see the description. Give your project an inviting name! Projects that are not funded can also be submitted.

1	Title:	Applications of novel computing techniques in deep mining time-course data	Funding Source:	2018 CPRIT summer undergraduate fellowship
Project Description: (100 words max)		In the big data era, novel computing techniques are critical to interrogating complex data like time-course measurements in various biomedical settings, including cancer prevention. It has been recognized that statistical computing and computer science computing techniques are increasingly integrated to address various issues in time course data analysis. For instance, the Julia language has recently emerged as the next generation alternative to R for statisticians, and deep learning techniques are of the dominant interest of computer scientists nowadays. How to integrate novel statistical computing tools like Julia with deep learning methods is thus the focus of this project.		
Think of this as an ad. Students will select projects based on these descriptions.				

Contact with: public patients lab samples animals none

Project Status	IRB	Yes		No	x
IRB Number					

Laboratory safety protocol	Yes		No	x
Protocol Number				

NB: Please do not submit more than two projects. Fill out one form per project

Email completed form to cprisummer@uth.tmc.edu

Will the fellow be added to the protocol? Yes No

Source of fellow funding: CPRIT Training grant Preceptor

If mentor funding, will fellow take part in innovation course, seminars and cancer prevention related research? Yes No

1. End Product(s):

A. All Fellows:

1. Complete a mini project explicitly using the tools of innovative thinking
2. Prepare and present a research poster on their project
3. Participate in the 90-second elevator speech competition for a prize award
4. Write a 3-page reflection paper, describing the summer experience, including instances of applying skills for innovative thinking, and in what way, if any, the experience has affected career plans, goals (due one week before his/her last day)

B. Project specific end products:

Mentors' please specify, e.g., GIS map to track whether and other environmental conditions for day laborer "corners" throughout Houston, design for a social network platform for follow-up with research participants, manuscript on xxx to be submitted for publication, abstract on yyy to be submitted to a scientific meeting

- 1.
- 2.
- 3.
- 4.
- 5.

Note to mentors: Any confidentiality agreements regarding the project or data you are using (e.g. unpublished results) should be arranged between you and your fellow.

2. Fellows Activities:

A. All Fellows

1. Complete the Massive Open online Course (MOOC) on Innovation Generation- IMAGINE99x
2. Apply the tools of innovative thinking in a mini-project
3. Participate in 1-hour weekly group meetings and seminars in Houston and via ITV
4. Participate in the elevator speech workshop and feedback sessions
5. Take part in the mid-course review and brainstorming session on the use of the tools for innovative thinking
6. Provide bi-monthly feedback to the program coordinator

NB: Please do not submit more than two projects. Fill out one form per project

Email completed form to cprisummer@uth.tmc.edu

-
7. Meet with the preceptor weekly to discuss the training experience, progress, and challenges: Day and Time
 8. Submit a final review of training experience
-
-

B. Project specific trainee activities

Mentors, please specify additional fellow activities, e.g., Fellow will commit to the design, analysis of a mini project XXX as part of a larger project?

- 1.
 - 2.
 - 3.
 - 4.
 - 5.
-
-

3. Learning Objectives: *By the end of the summer experience, fellow will demonstrate that they can*

A. All Fellows:

-
1. Describe and apply the tools of innovative thinking to increase creativity
 2. Describe, in the reflection paper, at least 3 instances of applying one or more tools for innovative thinking
 3. Recognize potential conflict(s) of interest in scenarios provided in CITI training
 4. Develop interviewing skills for graduate school
 5. Develop skills for research poster design and presentation
-
-

B. Project specific learning objectives:

Mentors, please specify additional learning objectives, e.g. Fellow will be able to write instructions for low literacy audiences, design a mini project with supervision

- 1.
 - 2.
 - 3.
 - 4.
 - 5.
-
-

4. Are there special fellow characteristics e.g., major, interests, language, culture or other preferences that would be desirable? Please specify:

Note to mentors: Any confidentiality agreements regarding the project or data you are using (e.g. unpublished results) should be arranged between you and your summer fellow.

NB: Please do not submit more than two projects. Fill out one form per project

5. Mentor Responsibilities

1. Attend the orientation and the elevator speech competition

2. Be available for >8 weeks or have suitable substitute

Will you be out for more than 2 weeks during the training period? Yes No

If yes, when would you be gone and for how long?

Who would serve as co-mentor during your absence (name and credentials, please specify)?

Name:

Job title:

E-mail:

Phone number: office:

Cell:

3. Meet with the fellow weekly – progress, challenges...

4. Encourage the use of the tools for innovative thinking

5. Notify the project coordinator if the fellow is not meeting the agreed upon responsibilities.
(This should be as early as possible to allow problem solving.)

6. Complete an evaluation of the fellow at the end of the program

7. Provide feedback on the program experience to the program coordinator
