



**Weill Cornell  
Medicine**



UNIVERSITY of MARYLAND  
RADIATION ONCOLOGY



**Jefferson**  
HEALTH IS ALL WE DO

# **ROBIN OligoMET Center**

## **Quarterly Update**

### **February 2023**

#### **News**

- **University of Maryland Baltimore Radiation Oncology Holiday Gathering**
- **11<sup>th</sup> Annual Practical Genomics from Biology to Biostatistics Workshop Led by Dr. Eddie Imada**
- **San Antonio Breast Cancer Symposium**
- **Cancer Risk & Control Program Retreat**
- **Thomas Jefferson University Radiation Oncology Retreat**
- **Centers for Medical Countermeasures Against Radiation Consortium (CMCRC) Annual Meeting**
- **18<sup>th</sup> Annual Radiation Oncology Symposium – Best of 2022**
- **Dr. Lei Ren appointed as Deputy Editor of the Medical Physics Journal**
- **Dr. Phuoc Tran's appointments**

#### **ROBIN OligoMET Center's Website Upgrade**

#### **New Hires**

#### **Farewells**

#### **Monthly Research Updates**

## News

### University of Maryland Baltimore Radiation Oncology Holiday Gathering

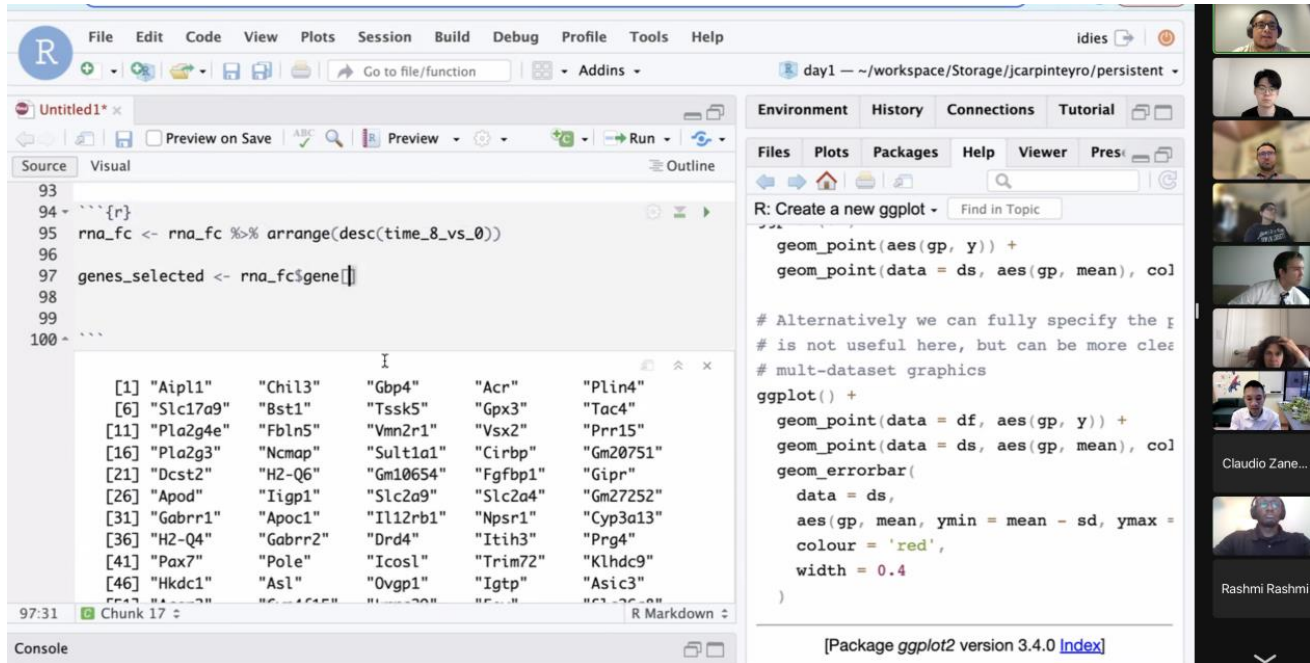


During the early December holiday gathering, Isadore and Fannie Schneider Foxman Chair and Professor, Dr. William Regine, joined Dr. Phuoc Tran's lab and staff for a group photo.



In this smaller holiday group photo, from left to right includes Dr. Phuoc Tran's lab and staff members Kamron Strickland, Claudia Datnow-Martinez, Jadyne Stewart, Adrianna Mendes, and William Mendes.

# 11th Annual Practical Genomics from Biology to Biostatistics Workshop Led by Dr. Eddie Imada



The screenshot displays the RStudio environment. The source editor on the left contains R code for selecting genes and plotting data. The console shows the output of the gene selection code, listing 46 genes. The environment pane on the right shows the execution of ggplot2 code, which creates a plot with points and error bars. The plot title is "R: Create a new ggplot".

```
93 ~~~
94 {r}
95 rna_fc <- rna_fc %>% arrange(desc(time_8_vs_0))
96
97 genes_selected <- rna_fc$gene[]
98
99 ~~~
100 ~~~
```

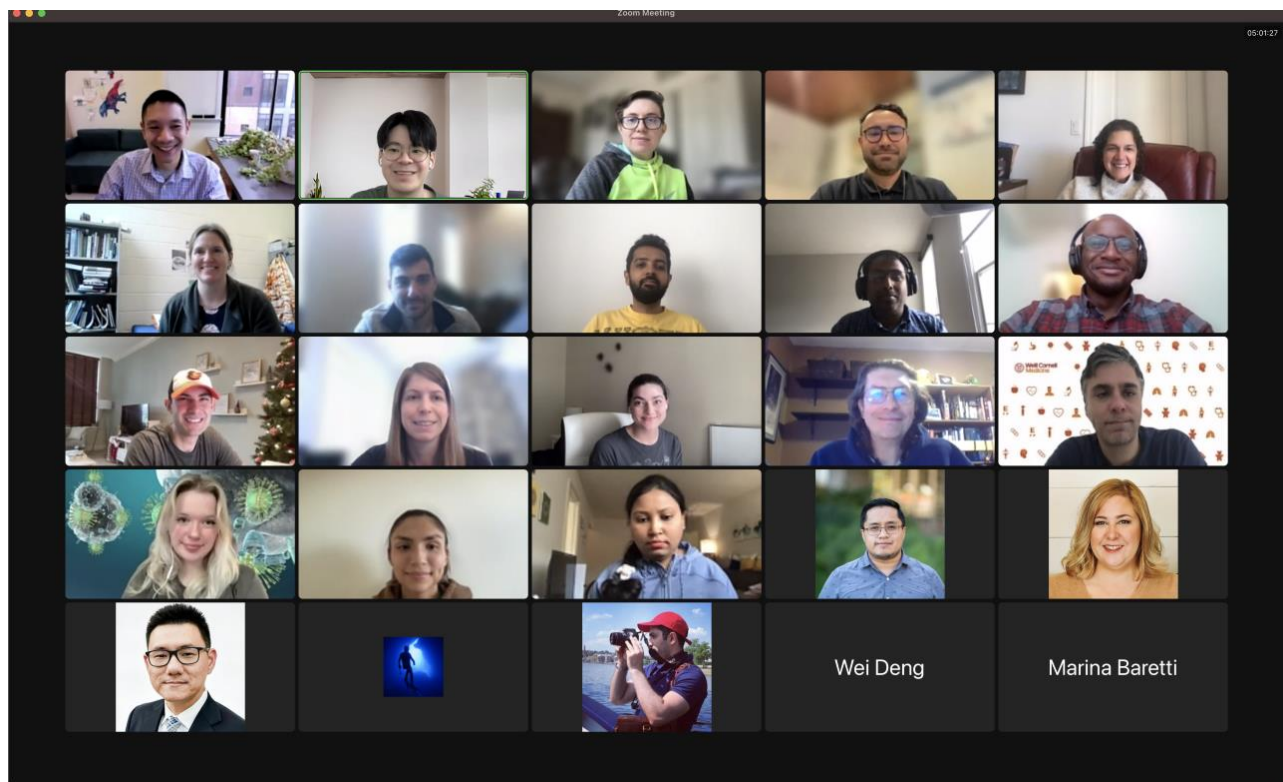
[1]	"Aipl1"	"Chil3"	"Gbp4"	"Acr"	"Plin4"
[6]	"Slc17a9"	"Bst1"	"Tssk5"	"Gpx3"	"Tac4"
[11]	"Pla2g4e"	"Fbln5"	"Vmn2r1"	"Vsx2"	"Prr15"
[16]	"Pla2g3"	"Ncmap"	"Sult1a1"	"Cirbp"	"Gm20751"
[21]	"Dcst2"	"H2-Q6"	"Gm10654"	"Fgfbp1"	"Gipr"
[26]	"Apod"	"Iigp1"	"Slc2a9"	"Slc2a4"	"Gm27252"
[31]	"Gabrr1"	"Apoc1"	"Il12rb1"	"Npsr1"	"Cyp3a13"
[36]	"H2-Q4"	"Gabrr2"	"Drd4"	"Itih3"	"Prgr4"
[41]	"Pax7"	"Pole"	"Icosl"	"Trim72"	"Klhdc9"
[46]	"Hkdc1"	"Asl"	"Ovgp1"	"Igtf"	"Asic3"

```
geom_point(aes(gp, y)) +
geom_point(data = ds, aes(gp, mean), col

# Alternatively we can fully specify the p
# is not useful here, but can be more cle
# mult-dataset graphics
ggplot() +
geom_point(data = df, aes(gp, y)) +
geom_point(data = ds, aes(gp, mean), col
geom_errorbar(
  data = ds,
  aes(gp, mean, ymin = mean - sd, ymax =
  colour = 'red',
  width = 0.4
)
```

[Package ggplot2 version 3.4.0 [Index](#)]

During the 4-day virtual workshop held on December 5-6 and 12-13, Dr. Eddie Imada taught on clustering, marker gene detection, differential expression, and trajectory analysis through hands-on exercises and breakout sessions.



This group photo includes all participants of the virtual workshop taken during the last day of the workshop.



## San Antonio Breast Cancer Symposium



Dr. Nicole Simone's medical student, Siani Harding, presented a disparities abstract titled, "Caloric restriction for oncology research (CaReFOR): Assessing dietary adherence and outcomes in African American patients during breast cancer treatment" at the San Antonio Breast Cancer Symposium (SABCS) that was held on December 6-10, 2022. Click [here](#) to view the abstract at the SABCS website.

## Cancer Risk & Control Program Retreat

# Cancer Risk & Control Program


Nicole Simone, MD  
Terry Hyslop, PhD

RETREAT 2022: HEALTH DISPARITIES





 SIDNEY KIMMEL CANCER CENTER | NCI-DESIGNATED

 <b>Sidney Kimmel Cancer Center</b> <small>at Thomas Jefferson University NCI-designated</small>	<b>Itinerary: Cancer Risk and Control Program Retreat</b> <b>December 14, 2022</b> <b>8:00AM – 1:00PM</b>
<p><b>8:00AM – 8:15AM</b></p>	<p style="color: red; font-weight: bold;">Welcome and Opening</p> <div style="border: 2px solid green; border-radius: 50%; padding: 10px; margin: 5px 0;"> <p style="color: blue; font-weight: bold;">Nicole Simone, MD</p> <p>Margaret Q. Landenberger Professor SKCC Program Leader, Cancer Risk and Control Program Vice Chair for Research and Faculty Affairs, Radiation Oncology Radiation Director of the Jefferson Breast Care Center</p> </div> <p style="color: blue; font-weight: bold;">Terry Hyslop, PhD</p> <p>Professor, PPCB Division of Biostatistics Director, SKCC Center for Health Equity Co-Leader, Cancer Risk and Control</p>
<p><b>8:15AM – 8:30AM</b></p>	<p style="color: blue; font-weight: bold;">Edith Peterson Mitchell, MD, MACP, FCPP, FRCP (London)</p> <p>Enterprise Vice President for Cancer Disparities Clinical Professor of Medicine and Medical Oncology Director, Center to Eliminate Cancer Disparities Sidney Kimmel Cancer Center at Jefferson <b>116<sup>th</sup> President National Medical Association</b></p>
	<p style="text-align: center;"><b>Our CRiC Disparities Research – Focusing on all catchment area populations   (7min talks and 3 min for questions)</b></p> <div style="border: 2px solid green; border-radius: 50%; padding: 10px; margin: 5px 0;"> <p style="color: blue; font-weight: bold;">African American population</p> <ul style="list-style-type: none"> <li>o Siani Harding, Medical Student MS2, "Assessing dietary adherence and outcomes in African American patients during breast cancer treatment."</li> <li>o Scott Keith, PhD Associate Professor Biostatistics Thomas Jefferson University, "Examining the Relationship between Community History and Prostate Cancer Disparities."</li> </ul> </div>

At the Sidney Kimmel Cancer Center Cancer, Dr. Nicole Simone hosted a Cancer Risk and Control Program Retreat that covers topics on health disparities. Some highlights included patient advocates joining breakout discussions to help guide impact of novel ideas, grand rounds speaker Dr. Scarlett Lin Gomez, MPH, PhD, among others. In addition, Dr. Simone’s medical student, Siani Harding, presented on disparities research titled, “Assessing dietary adherence and outcomes in American patients during breast cancer treatment.”

## Thomas Jefferson University Radiation Oncology Retreat



### *Research 2024 and Beyond*

Dr. Nicole Simone presented at the Sidney Kimmel Cancer Center at Thomas Jefferson University on, “Research and Beyond” where she spoke about research focused on richly diverse catchment area, patient support and community outreach initiatives, social determinants of health, examples of multidisciplinary research, among others.

## Centers for Medical Countermeasures Against Radiation Consortium (CMCRC) Annual Meeting



During the CMCRC annual meeting held on January 10-11<sup>th</sup>, Dr. Phuoc Tran gave a closing remark at the end of first day of this event. He thanked everyone for their dedication and agreed with President of University of Maryland Baltimore, Bruce Jarrell, and Isadore & Fannie Schneider Foxman Chair and Professor of Radiation Oncology, Dr. William Regine, the importance of everyone’s work at CMCRC.

## 18<sup>th</sup> Annual Radiation Oncology Symposium – Best of 2022



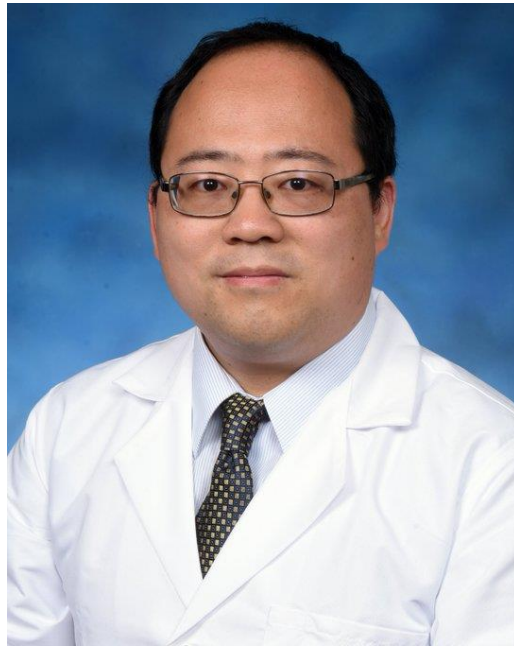
Dr. Mark Mishra gave a presentation on the “Central Nervous System – Best of 2022” and its latest developments in treatment that have occurred in the past year.



Dr. Zaker Rana gave a presentation on “Thoracic – Best of 2022” and its latest developments in treatment modalities that have occurred in the past year.



## **Dr. Lei Ren appointed as Deputy Editor of the Medical Physics Journal**



Congratulations to Dr. Lei Ren who was appointed as Deputy Editor of the Medical Physics Journal in January. In his role, he will work with decision-making authority and editors to oversee and manage manuscript reviews.

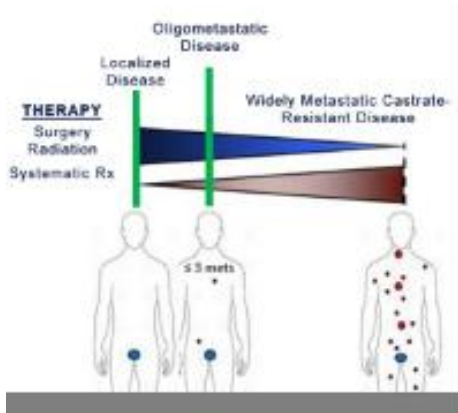
## **Dr. Phuoc Tran's appointments**



Congratulations to Dr. Phuoc Tran who was appointed for American Society for Radiation Oncology (ASTRO) Annual Refresher Course Faculty, Prostate Cancer Foundation as PCF TACTICAL Award Reviewer, NIH NCI Molecular Cancer Diagnosis and Classification Study Section (MCDC) as Ad Hoc Reviewer, and at NIH NCI ROBIN Study Section as Ad Hoc Reviewer.



## More Content Added to ROBIN OligoMET Center's Website



**ROBIN OligoMET Center**  
Radiation Oncology-Biology Integration Network  
on Oligometastasis (U54CA74220)

Interplay between primary macro- and micro-metastatic disease in response to consolidation stereotactic ablative radiation (SABR)

Prioritize mechanism/targets for functional validation; predict benefit

[LEARN MORE](#)

## ROBIN OligoMET Center

Departments > Department of Radiation Oncology > Divisions > Division of Translational Radiation Sciences > ROBIN OligoMET Center

### Overview

The Radiation Oncology-Biology Integration Network Oligometastasis (ROBIN OligoMET) Center is focused on understanding how radiation therapy can affect the metastatic process particularly in low-volume or oligometastatic prostate cancer (PCa). Our center brings together in-depth experience, knowledge, and high-level skills from the University of Maryland Baltimore (UMB), Weill Cornell Medicine (WCM) and Thomas Jefferson University (TJU) to study mechanisms of how radiation therapy (RT) can affect the metastatic process.

### Our Teams

### Research

### Education and Training

### Monthly Research Updates

### Quarterly Updates

### Highlights

This multidisciplinary perspective enables us to bring the latest clinical trials, profiling and computational methods to bear on the most clinically relevant aspects of oligometastasis. The projects integrate state-of-the-art tissue, liquid and radiomic multi-parametric profiling techniques from humans complimented with syngeneic mouse tumor models in the context of a first-in-man phase II randomized trial. Data will be integrated using novel network methods to prioritize candidates for functional validation across projects.

This U54 ROBIN OligoMET Center is led by Drs. Phuoc Tran (contact PI), Nicole Simone and Amit Sawant (both contact MPIs.) Project 1 (genomics, radiomics and liquid biopsies) is led by Drs. Tran, Ren and Sawant; Project 2 (metabolomics and disparities) is led by Dr. Simone; and the Resource Sharing and Cross-Training Cores are led by Drs. Luigi Marchionni, Sawant and Ren.

For more information, please contact the Program Manager Jadyn Stewart or Vice Chair for Research Dr. Phuoc Tran.

### Collaborating Institutions

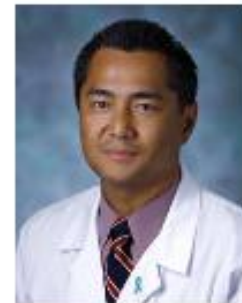
Thomas Jefferson University

Weill Cornell Medical College

Follow on Twitter @ROBINOligoMETC



### Contact PI



Phuoc T. Tran, MD, PhD

### Multiple PI



Amit Sawant, PhD



Nicole Simone, MD, PhD

The ROBIN OligoMET Center's [website](#) has been upgraded. Please check out the Center's webpage for the latest updates and information.

## New Hires



Dr. Muhammad Ajmal Khan, post-doctoral fellow, joined Dr. Phuoc Tran's lab in early December.

## Farewells



A farewell lunch was held in November last year for postdoctoral fellow, Francesca Carrieri (in dark blue long-sleeved shirt, sitting on the right side of Dr. Phuoc Tran who is in grey). She was a great addition to Dr. Phuoc Tran's lab, and we wish her continued success!



A farewell lunch was held in late January for research assistant, Shreya Jagtap (the one with a peace sign on the left). She is known to be friendly and welcoming to new members of Dr. Phuoc Tran’s lab and staff members. We wish her all the best in her future endeavors!

## Monthly Research Updates

<b>NOVEMBER AT A GLANCE TOTALS</b>		<b>DECEMBER AT A GLANCE TOTALS</b>		<b>JANUARY AT A GLANCE TOTALS</b>	
<b>Publications</b>	7	<b>Publications</b>	6	<b>Publications</b>	6
<b>Grants and contracts</b>		<b>Grants and contracts</b>		<b>Grants and contracts</b>	
New awards	0	New awards	2	New awards	1
Submitted	0	Submitted	0	Submitted	3
<b>Oral Presentations</b>	0	<b>Oral Presentations</b>	2	<b>Oral Presentations</b>	2
<b>Abstracts</b>	1	<b>Abstracts</b>	0	<b>Abstracts</b>	0
<b>Clinical trials</b>		<b>Clinical trials</b>		<b>Clinical trials</b>	
TERPS	1	TERPS	0	TERPS	1
<b>Awards/Honors</b>	1	<b>Awards/Honors</b>	3	<b>Awards/Honors</b>	2