



Vol.2/ 04.07.2020

**Weill Cornell
Medicine**

Radiation Oncology Clinical Research Office (ROCRO) Newsletter

ROCRO's mission is to be a high impact clinical research program focusing on Radiation Therapy and Immunotherapy.



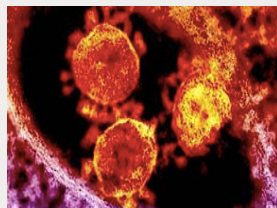
Silvia C. Formenti, M.D

Chair's note:

This update from ROCRO comes at a difficult time, globally because of COVID19 pandemic. One of the consequences is the order for all of our trials to suspend accruals, and for all of us to re-think our daily activities and professional responsibilities.

On the positive side, our group has been enriched by several outstanding new members, as we continue to grow our basic, translational and clinical research agenda on radiation and immunity. New prestigious awards, relevant publications, and important accomplishments continue to enrich our team.

In between, we all are looking forward to develop immunity against COVID19 and learn the most from this formidable challenge.



#WCMRadOnc

For more information email: pry2003@med.cornell.edu



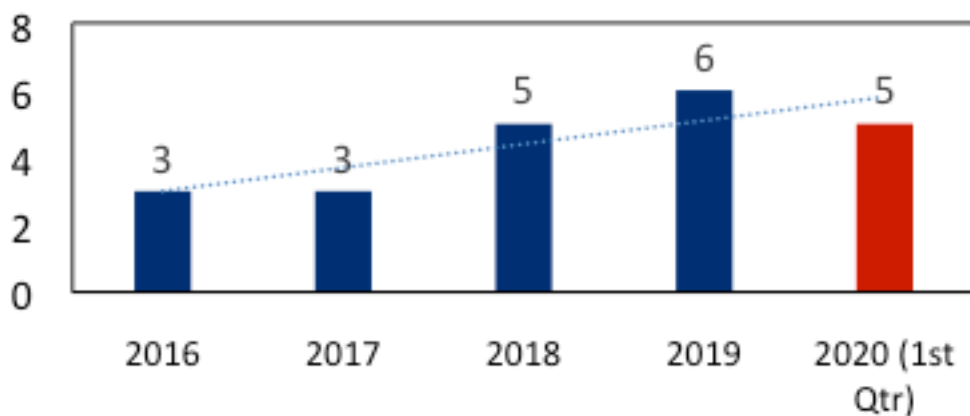
Short Title	PI	Enrolled (treated)/ target accrual
Investigator Initiated studies		
PBI	Dr. Formenti	190/284
ART	Dr. Formenti	27/74
BMS- NSCLC	Dr. Formenti	9/41
VARIAN	Dr. Formenti/Dr. Kang	55/60
SRS-Pembro	Dr. Formenti	3/41
PREPARE-SBRT	Dr.Nagar	5/40
PRART	Dr. Formenti/Dr.Ng	11/400
PRAGMA	Drs. Kang/Formenti/Sternberg	4/20
ViewRay	Dr. Formenti/Dr. Kang	30/30
Met. GU	Dr. Nagar	6/112
Sponsor/ Cooperative Group studies		
EISAI - Rectal Cancer	Dr. Ng	2/10
NRG GU003	Dr. Nagar	3/10
		342



New Protocols opened this year:

1. Prostate Radio Ablation Guided by Magnetic resonance imaging Acquisition in metastatic prostate cancer (PRAGMA).
2. Combined Immune effects of therapies in Metastatic ER+ breast cancer (CIMER)
3. The irradiated breast tumor cavity: A biological hub
4. Personalized Second Chance Breast Conservation Study (PSCBC): A two center prospective Phase II clinical study
5. Single arm phase II study of PSMA PET/MR guided SBRT with simultaneous Integrated boost for high intermediate and high risk Prostate cancer

No. of interventional studies opened/ year





Weill Cornell
Medicine

Faculty Introduction



Laura Santambrogio, M.D. PhD

Professor of Radiation Oncology,
Professor of Physiology and Biophysics

Dr. Laura Santambrogio joins us as Professor of Radiation Oncology. She also has a joint faculty appointment with the Department of Physiology and Biophysics and is appointed as the Associate Director of Precision Immunology in the Englander Institute of Precision Medicine. She received her PhD from Padua University and trained as post-doctoral fellow at NYU and Harvard Medical School. In 2003, she was recruited at Einstein with an Irene Diamond Professorship in Immunology. Current efforts in her laboratory are focused on the mechanisms of antigen processing and presentation, peptide binding to MHC class II molecules and the overall role of dendritic cells in innate and adaptive immune responses. She is tackling these questions using an integrated approach that combines cell biology, biochemistry and biophysics. Important questions addressed by her laboratory relate to the different cellular pathways utilized for antigen processing and presentation which include autophagy, endosomal processing and surface MHC II loading. Additionally, she is interested in understanding how changes in the cellular transcriptome and metabolome translate in the plasticity of the MHC II immunopeptidome.



**Weill Cornell
Medicine**

Faculty Introduction



Cristina Clement, PhD
Research Assistant Professor,
Radiation Oncology

Dr. Cristina Clement earned her Ph.D. in Biochemistry from City University of New York in 2006. She completed her postdoctoral training at MSKCC and Albert Einstein School of Medicine during 2007-2013. She was promoted to *Research Assistant Professor* when she joined the Weill Cornell Medicine in 2019.

Dr. Clement has more than a decade long well-documented track record of accomplished research projects in the field of chemical biology and mass spectrometry applied to “omics”, particularly the peptidomics/proteomics profiling of many biological systems. As an Assistant Professor of Research in the Radiation Oncology Department at WCM, Dr. Clement will continue to develop and apply promising new mass spectrometry and chemical-biology technologies for profiling the peptidomes and proteomes from different cells and tissues, under healthy and disease states.



**Weill Cornell
Medicine**

Faculty Introduction



Encouse Golden, M.D PhD.

Associate Professor of Radiation Oncology

Dr. Encouse Golden joined WCM Department of Radiation Oncology as Associate Professor of Radiation Oncology. Previously, he worked at the University of California San Francisco, where he served as Medical Director and Director of Quality Assurance.

In his new role at WCM, Dr. Golden will serve as Medical Director of Clinical Research in the Department of Radiation Oncology and Associate Medical Director of the Clinical Trials Program of the Meyer Cancer Center. Dr. Golden helped to pioneer and advance radiation and immunotherapy protocols in the preclinical and clinical areas. He helped to develop a high-throughput assay capable of quantifying the amount of immunogenicity elicited from radiation-based therapies as a means to rapidly translate this benefit to patients being treated in the clinic. He has also helped to systematically establish immune-mediated abscopal (away from the radiation field) responses in patients with metastatic solid tumors. He is a California native who has received both his medical and graduate degrees from the Keck School of Medicine at the University of Southern California in Los Angeles. He completed his residency training at the New York University School of Medicine mentored by Drs. Silvia C. Formenti, Mary Helen Barcellos-Hoff, and Sandra Demaria. At Weill Cornell Medical College, he will focus on the clinical translation of radiation and immunotherapy based treatments that act as individualized in situ vaccines against established tumors.



**Weill Cornell
Medicine**

Faculty Introduction



Ariel E. Marciscano, M.D

Assistant Professor of Radiation Oncology

Director, Radiation Biology core

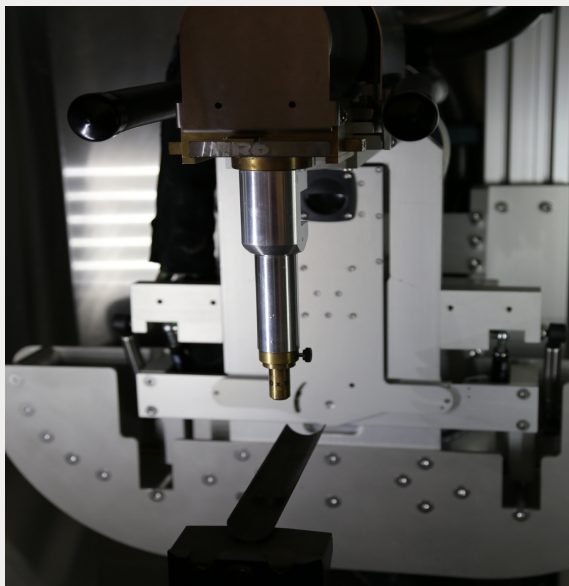
We are extremely proud to introduce our new faculty member – Ariel E. Marciscano, M.D., who joins us from Memorial Sloan Kettering where he specialized in Genitourinary Cancers and Metastatic Disease. Ariel is a graduate of NYU School of Medicine. He completed his medicine internship at Massachusetts General Hospital and residency training in radiation oncology at The Johns Hopkins Hospital. During his time at Johns Hopkins, he studied mechanisms of synergy of radiation and immunotherapy in the Bloomberg-Kimmel Institute for Cancer Immunotherapy and subsequently completed a fellowship in Immunotherapy at the NCI, Center for Cancer Research, before joining faculty at MSK.

Ariel will serve as Director of Radiation Biology core and his laboratory focus will be on optimizing radiation-immunotherapy synergy, novel RT-drug combinations and understanding the immune response to stereotactic radiation within the tumor microenvironment. He will also join our Radiation Oncology Clinical Research Office (ROCRO), providing a link between the preclinical and clinical research initiatives within the Department.



**Weill Cornell
Medicine**

WCM Radiation Biology Core
– *Coming soon!*



- We are working towards opening a new core facility here at WCM - Radiation Biology Core at 1300 York Avenue, E building, 2nd floor.
- Dr. Ariel Marciscano will be the director of this core.
- The facility will be open to institutions across NYC.

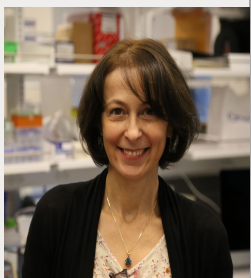


**Weill Cornell
Medicine**

Pre-Spore Award and upcoming SPORE submission



Dr. Silvia Formenti and Dr. Sandra Demaria were generously awarded a 1-year Pre-P01/SPORE grant from the Sandra and Edward Meyer Cancer Center on December 1, 2018 as a pilot grant to jumpstart six potential program projects titled *"Using Radiotherapy to Jump-start Cancer Response to Immunotherapy."*



They will be submitting a SPORE grant in September 2020 on the topic of Radiation and Immunotherapy. If accepted, this will be the first SPORE submission on this groundbreaking topic. They have been pioneers in understanding the immune-suppressive and immune-stimulatory effects of ionizing radiation and its role in anti-tumor immunity, essentially using the body's own immune system to attack the tumor.

Dr. Tina Jeon serves as a Program Specialist in Cancer Research. She was recruited in July 2019 to assist with the preparation of a P50 Specialized Programs of Research Excellent (SPORE) grant in immunotherapy and radiotherapy. She is also monitoring finances of Dr. Formenti's multiple research awards, which continue to increase every year.



Prior to joining WCM, she held a research scientist position at the Hospital for Special Surgery, investigating peripheral nerve imaging using advanced nuclear medicine techniques. She has a wealth of experience applying for and receiving both NIH awards and private research grants. Tina holds a B.A. in Mathematics from Pepperdine University, a PhD in Biomedical Engineering from the University of Texas Southwestern Medical School, and completed her postdoctoral fellowship at the Children's Hospital of Philadelphia.



Weill Cornell Medicine

Research Updates



Laura Santambrogio, M.D. PhD was awarded a five-year RO1 award (2/18/20-1/31/25) for her study titled -- *Effect of Glycation and Carbonylation on MHC II restricted immunity.*



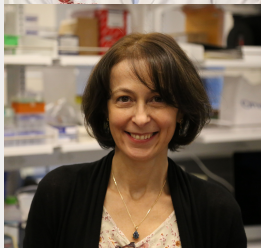
Immunological impact of cell death signaling driven by radiation on the tumor microenvironment.

Rodriguez-Ruiz ME, Vitale I, Harrington KJ, Melero I, Galluzzi L.
Nat Immunol. 2020 Feb;21(2):120-134.



CD73 Blockade Promotes Dendritic Cell Infiltration of Irradiated Tumors and Tumor Rejection.

Wennerberg E, Spada S, Rudqvist NP, Lhuillier C, Gruber S, Chen Q, Zhang F, Zhou XK, Gross SS, Formenti SC, Demaria S.
Cancer Immunol Res. 2020 Feb 11.





Weill Cornell Medicine

Research Updates



Silvia Formenti, M.D. has been appointed as 2020-21 AACR Radiation Science and Medicine working group Chair- elect.

She is also a recipient of the 2020 Jessica M. & Natan Bibliowicz Award for Excellence in Mentoring Women Faculty.

Trends in the Use of Stereotactic Body Radiotherapy for Treatment of Prostate Cancer in the United States.

Sean Mahase, Debra D'Angelo, Josephine Kang,
Jim Hu, Christopher Barbieri and Himanshu Nagar
JAMA Netw Open. 2020 Feb 5;3(2):e1920471.



Pragya Yadav, PhD has been promoted to Assistant Research Coordinator as of December 2019. We wish her good luck in new role!

*Stay home and stay safe during this COVID-19 public health emergency.
Best wishes to our readers from the ROCRO team!*