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

Chair’s note:
We are reaching the end of a challenging year, with many successes to celebrate including the availability of effective COVID-19 vaccines. Our record of relentless productivity including a SPORE grant submission, was not threatened by SARS-CoV -2. We wish you all a healthy and happy 2021, when hopefully we will be able to again connect in person, the way we used to, as in the picture from a year ago.

Silvia C. Formenti, M.D

#WCMRadOnc

For more information email: pry2003@med.cornell.edu
### Clinical Trial Enrollments

<table>
<thead>
<tr>
<th>Protocol #</th>
<th>Short title</th>
<th>Principal Investigator</th>
<th>Enrolled (treated)/target accrual</th>
<th>Enrolled since 01/01/20</th>
</tr>
</thead>
<tbody>
<tr>
<td>1505016201</td>
<td>PBI</td>
<td>Dr. Silvia Formenti</td>
<td>173/200</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>BMH PBI</td>
<td>Dr. Hani Ashmalla</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>NYPQ- PBI</td>
<td>Dr. Akkamma Ravi</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>USC-PBI</td>
<td>Dr. Jason Ye</td>
<td>36/84</td>
<td>12</td>
</tr>
<tr>
<td>1602017017</td>
<td>ART</td>
<td>Dr. Silvia Formenti</td>
<td>34/74</td>
<td>9</td>
</tr>
<tr>
<td>1607017434</td>
<td>BMS- NSCLC</td>
<td>Dr. Silvia Formenti</td>
<td>12/41</td>
<td>3</td>
</tr>
<tr>
<td>1708018471</td>
<td>VARIAN</td>
<td>Dr. Silvia Formenti/Dr. Josephine Kang</td>
<td>63/70</td>
<td>22</td>
</tr>
<tr>
<td>1710018694</td>
<td>SRS-Pembro</td>
<td>Dr. Silvia Formenti</td>
<td>5/41</td>
<td>2</td>
</tr>
<tr>
<td>1712018849</td>
<td>PREPARE-SBRT</td>
<td>Dr. Himanshu Nagar</td>
<td>11/40</td>
<td>6</td>
</tr>
<tr>
<td>19-07020533</td>
<td>PRART</td>
<td>Dr. Silvia Formenti/Dr. John Ng</td>
<td>29/400</td>
<td>25</td>
</tr>
<tr>
<td>19-04020263</td>
<td>PRAGMA</td>
<td>Drs. Kang/Formenti/Sternberg</td>
<td>7/20</td>
<td>7</td>
</tr>
<tr>
<td>19-07020531</td>
<td>PSCBC</td>
<td>Dr. John Ng</td>
<td>3/55</td>
<td>3</td>
</tr>
<tr>
<td>20-03021572</td>
<td>SHORTER</td>
<td>Dr. Himanshu Nagar</td>
<td>18/136</td>
<td>18</td>
</tr>
<tr>
<td>20-04021831</td>
<td>WELCOME</td>
<td>Drs. Formenti/Ross/Pascual</td>
<td>91/1000</td>
<td>91</td>
</tr>
<tr>
<td>20-09022641</td>
<td>CIMER</td>
<td>Drs. Formenti/Andreuoupoulou/Golden</td>
<td>1/35</td>
<td>1</td>
</tr>
<tr>
<td>1612017834</td>
<td>EISAI - Rectal Cancer</td>
<td>Dr. John Ng</td>
<td>2/10</td>
<td>0</td>
</tr>
<tr>
<td>1708018460</td>
<td>NRG GU003</td>
<td>Dr. Himanshu Nagar</td>
<td>3/10</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>503</td>
<td>240</td>
</tr>
</tbody>
</table>
Clinical Trial Updates

No. of prospective studies opened/year

- 2016: 3
- 2017: 3
- 2018: 5
- 2019: 6
- 2020 (Q 1-4): 8

The ROCRO Quarterly Vol.5/12.31.2020
Dr. Onyinye Balogun has been awarded New York Genome Center’s (NYGC) Polyethnic-1000 (P-1000) grant. She is one of the lead investigators on the study titled- *Mechanisms of Endometrial Cancer Disparities in African Americans,* a collaborative study by Cold Spring Harbor Laboratory, WCM, NYP Brooklyn Methodist Hospital, and Northwell Health. Dr. Balogun was also selected to participate on the ASCO Task Force for the Gynecological Cancer Care Survivorship Program.

Dr. Ariel Marciscano has been awarded the Prostate Cancer Foundation Young Investigator Award, focusing on “Targeting Fcgamma receptors with stereotactic radiation to reprogram myeloid cells in the tumor microenvironment”. Dr. Marciscano also served as Panel Member / Speaker for the ASTRO 2020 Grant Writing Workshop for ASTRO’s Science Council.

Dr. Himanshu Nagar has been awarded WCM Prostate SPORE’s Career Enhancement Program award. This award will provide funds for a one year translational project in human prostate cancer.
We are extremely pleased to announce that the study titled- *The effects of radiotherapy on the presentation of phosphorylated antigens by cancer cells* - was selected for funding through the Starr Cancer Consortium’s (SCC) 14th grant competition. The grant has been collectively awarded to 6 PIs:

**Lewis Cantley, PhD** – Weill Cornell Medicine  
Co-Principal Investigators: **Sandra Demaria, MD** – Weill Cornell Medicine  
**David Scheinberg, MD, PhD** – Memorial Sloan Kettering Cancer Center  
**Gad Getz, PhD** – The Broad Institute of MIT and Harvard  
**Laura Santambrogio, MD, PhD** – Weill Cornell Medicine  
**Noah Dephoure, PhD** – Weill Cornell Medicine

The overall goal of the study is to identify phosphopeptides that can induce a robust anti-tumor T cell response, promote antigen spread, and generate anti-tumor immune responses which will lead to the regression of non-irradiated lesions.

Congratulations to all the PIs for the award!
Higinia Cardenes, M.D., PhD is the Chair of ASTRO’s Task Force for Primary Liver Cancer Clinical Practice Guidelines.

Himanshu Nagar, M.D is a member of ASTRO’s Science Education and Program Development Committee.

Jonathan Knisely, M.D is a member of ASTRO’s Committee for Promoting Science through Research and Training and also the CNS Resource Panel.

Ariel Marciscano, M.D is a member of ASTRO’s Committee for Promoting Science through Research and Training, which is part of the ASTRO Science Council.
Dr. Ryan Fecteau’s abstract titled- *Deletion of the tumor suppressor gene PTEN in ETS-fusion positive Prostate cancer identifies patients with high risk pathology that may benefit from adjuvant radiation* - is one of the few abstracts to be designated as a 2020 Best of ASTRO abstract. The Best of ASTRO abstracts are a selection of the most relevant and highly influential abstracts from the 2020 Annual Meeting. Congratulations to the authors!

We are extremely proud to announce that our department has a new Physics residency program, which is fully accredited by CAMPEP, the national agency that credentials and supervises all medical physics residency programs. Dr. Gabor Jozsef will be the Director of this 2-year residency program. The first resident to be recruited through this program will be in 2022.

Dr. Lorenzo Galluzzi has been nominated in the Highly Cited Researchers™ 2020 list, in 2 different categories (Molecular Biology & Genetics and Immunology), an honor shared by only approximately 200 investigators worldwide.
NYP - Welcome (NYP - Weill Cornell Medicine Employees) is a COVID-19 database and biorepository to investigate the natural history of COVID-19. WELCOME is supported by Dean along with a collaborative commitment from NIAID. In the past few months, the study has received a very enthusiastic response and we are approaching almost 100 enrolled participants!

**NYP - WELCOME Study**

SARS-COV-2, THE VIRUS OF COVID-19, HAS CREATED A GLOBAL PROBLEM

**YOU, can be part of the solution,**

by participating in the NYP - Weill Cornell Medicine Employees cohort (WELCOME), and undergoing Covid-19 testing and donation of specimens for research on this disease.

The results of the COVID-19 Antibody test and the Nasopharyngeal Swab test will be available within 24 hours.

Contact : [NYPWELCOME@med.cornell.edu](mailto:NYPWELCOME@med.cornell.edu) (with email subject: NYP-WELCOME Study) for an appointment, to meet our research associates at CTSC (Clinical Translational Science Center), Weill Cornell Medicine, 525 East 68th street, F-260.

Sign up here: NYP - Welcome

The ROCRO Quarterly Vol.5/12.31.2020
Our department has recently opened a new Investigator Initiated Trial: Randomized Phase II Trial of Salvage Radiotherapy for Prostate Cancer in 4 Weeks v. 2 Weeks (SHORTER). The purpose of this study is to compare urinary and bowel side effects of hypofractionated radiotherapy in 20 treatments (4 weeks) versus ultra- hypofractionated radiotherapy in 5 treatments (2 weeks) for prostate cancer that has returned after prostatectomy. Himanshu Nagar, M.D. is the PI of the study.

For information about the study, please click [https://youtu.be/IW4PDiTqmy8](https://youtu.be/IW4PDiTqmy8)
Jessica Richman joins us as a Data Control Coordinator. She graduated from Cornell University in 2019, where she majored in Human Development. After graduation, she worked for one year as a Clinical Research Coordinator at Massachusetts General Hospital in the Center for Addiction Medicine. Please join us in welcoming Jessica Richman to our Radiation Oncology family!

Veronica Levin-Genkin joins the department as a Nurse Practitioner and will be supporting Dr. Nicholas Sanfilippo. She has been a nurse for over 9 years and earned her Master’s degree in Adult-Geriatric Nurse Practitioner from New York University. She worked at NYU Langone Orthopedic hospital for 5 years and the last 4 years at NYP/Lower Manhattan Hospital.

Ninjit Dhanota joins the department as a Postdoctoral Associate in Marciscano Lab. She obtained her Ph.D. in Cancer Biology from PGIMER, Chandigarh, India. Her PhD research work focused on delineating the underlying molecular mechanisms responsible for intratumoral enrichment of breast cancer stem cells in aggressive human breast tumors. In 2019, she first joined Human Oncology & Pathogenesis Program (HOPP) at MSKCC in New York.

Sridharan Ganesan joins the department as a Postdoctoral Associate in Santambrogio Lab. He obtained his Ph.D. in Immunology/Medical Science from Karolinska Institutet, Sweden in 2019. His Ph.D research work focused to establish an in-vitro novel calcium flow cytometry assay by which he studied various properties of NK cells, both mice (transgenic - DTR and Cre) and humans.
Recent Publications

**Hypofractionated Postoperative Radiotherapy for Prostate Cancer: Is the Field Ready Yet?**
Sean Mahase and Himanshu Nagar
European Urology Open Science, Volume 22, December 2020, Pages 9-16

**Active Surveillance for Men with Intermediate Risk Prostate Cancer**
Vishesh Agrawal, Xiaoyue Ma, Jim C. Hu, Christopher E. Barbieri, Himanshu Nagar
Journal of Urology, Issue 1, January 2021, Page115-121

**Cancer and cardiovascular disease**
Jonathan P S Knisely, Sonia A Henry, Shahryar Saba, Lindsay Puckett
Lancet, 2020 Jun 20;395(10241)

**Parallels between the anti-Viral State and the Irradiated State**
Heather M McGee, Ariel E Marciscano, Allison M Campbell, Arta M Monjazeb, Susan M Kaech, John R Teijaro
J Natl Cancer Inst 2020 Nov 30;djaa190
Recent Publications

Immunostimulation with chemotherapy in the era of immune checkpoint inhibitors
Lorenzo Galluzzi, Juliette Humeau, Aitziber Buqué, Laurence Zitvogel, Guido Kroemer
Nat Rev Clin Oncol 2020 Dec; 17(12):725-741

Immunomodulation by targeted anticancer agents.
Cancer Cell 2021/Published online December 17, 2020.

Future of Radiation and Immunotherapy
Silvia C Formenti, Sandra Demaria
Converging focal radiation and immunotherapy in a preclinical model of triple negative breast cancer: contribution of VISTA blockade
Karsten A Pilones, Michal Hensler, Camille Daviaud, Jeffrey Kraynak, Jitka Fucikova, Lorenzo Galluzzi, Sandra Demaria, Silvia C Formenti
Oncoimmunology 2020 Oct 20;9(1)

Activin A Promotes Regulatory T-cell-Mediated Immunosuppression in Irradiated Breast Cancer
Mara De Martino, Camille Daviaud, Julie M Diamond, Jeffrey Kraynak, Amandine Alard, Silvia C Formenti, Lance D Miller, Sandra Demaria, Claire Vanpouille-Box