

What's New in Medicine, the newsletter of the Joan and Sanford I. Weill Department of Medicine at Weill Cornell Medicine, provides the latest updates on the department's research breakthroughs, new faculty recruits, and honors and awards. *To submit information for consideration for future newsletters, please contact Suzanne Ross directly at suross@med.cornell.edu.*

Message from the Chair



As I write this note, the Omicron surge at NewYork-Presbyterian/Weill Cornell Medical Center and across our campuses has begun to improve. We still continue to have significant numbers of very ill patients requiring care and expect this to continue as the wave abates. Similarly, the volume of inpatient work at both of our campuses continues to be significant as the disease burden in our communities remains high.

Despite the surge and challenges around staffing, our department continued to provide the usual level of exemplary ambulatory care across all specialties. In addition, our research programs continued to grow. Over the past few years, we have been very fortunate to renew and obtain new NIH training grants (T32 awards) across many of our divisions. Most recently,

our Cardiology program received a new T32 award and Endocrinology is in striking range with a very good score after their first submission. These programs are critical for the growth of our physician-scientists and become part of the continuum within the medical research track in our residency program, fellowship programs, and Fund for the Future, as we build an outstanding development program to support the growth of our research base across the Weill Department of Medicine.

Again, I want to thank everyone for all the care and diligent work over the last number of weeks. I am hoping we will begin to get back to in person conferences and meetings in the next few weeks. The department will update you as we hear more.

Finally, I want to acknowledge and celebrate National Women Physicians Day on February 3rd and all of the contributions of our outstanding women faculty and trainees as we move forward to improve everything we do.

I look forward to seeing many of you (virtually) at our faculty meeting next Tuesday.

Tony

Anthony Hollenberg, M.D. Sanford I. Weill Chair

News



Dr. Cristofanilli Appointed as Director of Breast Medical Oncology in Division of Hematology and Medical Oncology

Dr. Cristofanilli's many scientific advances in the field of breast cancer include novel biomarkers (endocrine), findings on circulating tumor cells, and drug development with a focus on endocrine therapy. <u>Read more</u>



Dr. Landau Receives The Mark Foundation's 2022 Emerging Leader Award

The award will support Dr. Landau's development of novel technology to study clonal mosaicism in normal tissues. This research will open a critical window into the earliest stages of cancer formation. <u>Read more</u>



Dr. Prigerson Highlighted in New York Times Article on Prolonged Grief Disorder (PGD)

PGD is a syndrome in which people feel stuck in a cycle of mourning that can last for years or even decades. This ongoing cycle can impair an individual's daily life, relationships, and job performance. <u>Read more</u>



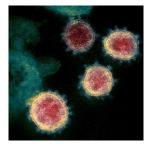
Dr. Sonnenberg and Colleagues Discover Unique Subset of ILC3s and a Connection to Inflammation

The research suggests that countering the activity of inflammatory ILC3s could lead to a therapeutic approach for multiple sclerosis and other brain disorders. <u>Read more</u>



Dr. Stracher Appointed Chief Medical Officer of Weill Cornell Medicine

Dr. Stracher will provide clinical leadership and direction on policies and programs that impact the health of faculty, staff, students, board members, and patients at Weill Cornell Medicine. Read more



Flattening the Curve for COVID-19: Drs. Nixon and Hupert Publish Key Findings in PNAS

The study employed a sophisticated computer modeling platform built in response to the COVID-19 pandemic. <u>Read more</u>



Division of Rheumatology: Dr. Bridges Focused on Optimizing Clinical Research and Mentoring

As highlighted in the WDOM's 2021 Annual Report, Dr. S. Louis "Lou" Bridges, Jr., Chief, Division of Rheumatology, WDOM, remains focused on optimizing new approaches in clinical research and mentoring. <u>Read more</u>



COVID-19 Community Education and Empowerment Internship Receives Gift from Weil, Gotshal & Manges Foundation

The program is part of an effort by diversity and health equity leaders at Weill Cornell Medicine to increase vaccination rates in the Black and Hispanic communities. <u>Read more</u>



Dr. Wilkin Honored at Medicine Grand Rounds: Promotion to Professor of Medicine

The WDOM congratulates Dr. Timothy Wilkin, Division of Infectious Diseases, on being honored at Medicine Grand Rounds (January 19, 2022) in recognition of his promotion to Professor of Medicine.

Dr. Tony Hollenberg, Chair, WDOM, and Dr. Roy M. Gulick, Chief, Division of Infectious Diseases, WDOM, presented Dr. Wilkin with an honorary chair from the department embossed as follows:

Timothy James Wilkin, M.D. Professor of Medicine Weill Cornell Medical College Cornell University 2020

POPS | VIVO

News Flashes

- Congratulations to WDOM faculty who recently received a promotion: Lindsay Lief, M.D., Associate Professor of Clinical Medicine, Division of Pulmonary and Critical Care Medicine Debjani Mukherjee, Ph.D., Associate Professor of Medical Ethics in Clinical Medicine, Associate Professor of Medical Ethics in Clinical Rehabilitation Medicine, Division of Medical Ethics Catherine Butkus Small, M.D., Professor of Clinical Medicine, Division of Infectious Diseases
- The WDOM congratulates Dr. Laura Greisman who has been appointed as co-Director of the Office of International Medical Student Education, formerly known as the Office of Global Health Education. Dr. Greisman, an Assistant Professor of Clinical Medicine in the Division of General Internal Medicine/Section of Hospital Medicine, is a recipient of the "Senior List" teaching award and the Excellence in Medical Education Award at Weill Cornell. She has also served on the Learning Environment Working Group of the WCM Equity and Inclusion Initiative.
- The WDOM congratulates the Division of Pulmonary and Critical Care Medicine on receiving recognition from the COPD Foundation on January 25, 2022 as a COPD360Net Accredited Center. The COPD Center at Weill Cornell Medicine is led by Dr. Jamuna Krishnan and Dr. Michael Niederman. Its clinical program provides high-quality patientcentered care and offers advanced therapeutic options, such as Bronchoscopic Lung Volume Reduction, led by Dr. Ben-Gary Harvey. As an accredited center, the staff is excited to have the opportunity to work with the COPD Foundation on research studies and clinical trials. The clinic is located at 425 East 61st Street.
- **Dr. David Nanus**, Professor of Medicine, Division of Hematology and Medical Oncology, WDOM, and a member of the Meyer Cancer Center, Weill Cornell Medicine, and **Dr. Erica Phillips**, Associate Professor of Clinical Medicine and the Jack Fishman Associate Professor of Cancer Prevention, Division of General Internal Medicine, WDOM, are advancing exciting research that will bring a portable prostate cancer test to underserved men. Their study addresses the need for increasing access to PSA (Prostate-Specific Antigen) screening among African American men (who are not able to get tested periodically). In collaboration with Dr. Rulla Tamimi and Dr. Kevin Kensler, Department of Population Health Sciences, Weill Cornell Medicine, and colleagues at Cornell University, Ithaca campus, this work is funded by the National Institutes of Health and the Department of Defense. <u>Read more</u>
- The WDOM congratulates **Dr. Christopher Gonzalez**, Assistant Professor of Medicine, Division of General Internal Medicine, on being selected as a recipient of the 2022 Pilot Grant Award of the Mastercard Diversity-Mentorship Collaborative at Weill Cornell Medicine. This one-time grant, which begins as of January 1, 2022 and runs through December 31, 2022, will support Dr. Gonzalez's project focused on identifying patient and practice-level factors pertinent to developing and implementing weight-management interventions for Hispanic men in under-resourced settings.
- On the heels of his recently published paper in *Nature* regarding the discovery of a unique subset of ILC3s and a connection to inflammation (see story above), **Dr. Gregory Sonnenberg** and colleagues have published another paper in *Nature Immunology* (January 31, 2022) that has uncovered a key growth factor protein (produced by rare immune cells in the intestine) that protects the gut from Inflammatory Bowel Disease. Dr. Sonnenberg, the study's senior author, is an Associate Professor of Microbiology and Immunology in Medicine, Division of Gastroenterology & Hepatology, and a scientist at the Jill Roberts Institute for Research in Inflammatory Bowel Disease, Weill Cornell Medicine. Colleagues working on this study included Lei Zhou, Ph.D. (first author), who is a Postdoctoral Associate in Medicine in the Sonnenberg laboratory. <u>Read more</u>
- The Weill Department of Medicine's newsletter, What's New In Medicine (WNIM), is archived on our WDOM website.

Research Paper Highlights

Cardiology

Goldman A, Maor E, Bomze D, Liu JE, Herrmann J, Fein J, Steingart RM, Mahmood SS, Schaffer WL, Perales MA, Shouval R. Adverse Cardiovascular and Pulmonary Events Associated With Chimeric Antigen Receptor T-Cell Therapy. J Am Coll Cardiol. 2021 Nov 2;78(18):1800-1813. doi: 10.1016/j.jacc.2021.08.044. PMID: 34711339; PMCID: PMC8562317.

Rong LQ, Menon A, Lopes AJ, Agoglia H, Tak K, Devereux RB, Rahouma M, Gaudino M, Weinsaft JW, Kim J. Left Atrial Strain Quantification by Intraoperative Transesophageal Echocardiography: Validation With Transthoracic Echocardiography. J Cardiothorac Vasc Anesth. 2021 Nov 14:S1053-0770(21)00981-2. doi: 10.1053/j.jvca.2021.11.017. Epub ahead of print. PMID: 34903459.

Reiterer M, Rajan M, Gómez-Banoy N, Lau JD, Gomez-Escobar LG, Ma L, Gilani A, Alvarez-Mulett S, Sholle ET, Chandar V, Bram Y, Hoffman K, Bhardwaj P, Piloco P, Rubio-Navarro A, Uhl S, Carrau L, Houhgton S, Redmond D, Shukla AP, Goyal P, Brown KA, tenOever BR, Alonso LC, Schwartz RE, Schenck EJ, Safford MM, Lo JC. Hyperglycemia in acute COVID-19 is characterized by insulin resistance and adipose tissue infectivity by SARS-CoV-2. Cell Metab. 2021 Dec 7;33(12):2484. doi: 10.1016/j.cmet.2021.10.014. Erratum for: Cell Metab. 2021 Nov 2;33(11):2174-2188.e5. PMID: 34879241; PMCID: PMC8650200.

Endocrinology, Diabetes & Metabolism

Weintraub MA, Ameer B, Sinha Gregory N. Graves Disease Following the SARS-CoV-2 Vaccine: Case Series. J Investig Med High Impact Case Rep. 2021 Jan-Dec;9:23247096211063356. doi: 10.1177/23247096211063356. PMID: 34939881; PMCID: PMC8724979.

Keinan O, Valentine JM, Xiao H, Mahata SK, Reilly SM, Abu-Odeh M, Deluca JH, Dadpey B, Cho L, Pan A, Yu RT, Dai Y, Liddle C, Downes M, Evans RM, Lusis AJ, Laakso M, Chouchani ET, Rydén M, Saltiel AR. Glycogen metabolism links glucose homeostasis to thermogenesis in adipocytes. Nature. 2021 Nov;599(7884):296-301. doi: 10.1038/s41586-021-04019-8. Epub 2021 Oct 27. PMID: 34707293.

Kumar RB, Srivastava G, Reid TJ, Aronne LJ. Understanding the pathophysiologic pathways that underlie obesity and options for treatment. Expert Rev Endocrinol Metab. 2021 Nov;16(6):321-338. doi: 10.1080/17446651.2021.1991310. PMID: 34904501. [Comprehensive Weight Control Center]

Gastroenterology & Hepatology

Charilaou P, Tricarico C, Battat R, Scherl EJ, Longman RS, Lukin DJ. Impact of Inflammatory Bowel Disease Therapies on Durability of Humoral Response to SARS-CoV-2 Vaccination. Clin Gastroenterol Hepatol. 2021 Dec 9:S1542-3565(21)01301-X. doi: 10.1016/j.cgh.2021.12.007. Epub ahead of print. PMID: 34896283; PMCID: PMC8654702.

Lima SF, Gogokhia L, Viladomiu M, Chou L, Putzel G, Jin WB, Pires S, Guo CJ, Gerardin Y, Crawford CV, Jacob V, Scherl E, Brown SE, Hambor J, Longman RS. Transferable Immunoglobulin A-Coated Odoribacter splanchnicus in Responders to Fecal Microbiota Transplantation for Ulcerative Colitis Limits Colonic Inflammation. Gastroenterology. 2022 Jan;162(1):166-178. doi: 10.1053/j.gastro.2021.09.061. Epub 2021 Oct 2. PMID: 34606847; PMCID: PMC8678328.

Kaplan A, Rosenblatt R, Jackson W, Samstein B, Brown RS Jr. Practices and Perceptions of Living Donor Liver Transplantation, Nondirected Donation, and Liver Paired Exchange: A National Survey. Liver Transpl. 2021 Dec 3. doi: 10.1002/lt.26384. Epub ahead of print. PMID: 34862704.

Doron I, Mesko M, Li XV, Kusakabe T, Leonardi I, Shaw DG, Fiers WD, Lin WY, Bialt-DeCelie M, Román E, Longman RS, Pla J, Wilson PC, Iliev ID. Mycobiota-induced IgA antibodies regulate fungal commensalism in the gut and are dysregulated in Crohn's disease. Nat Microbiol. 2021 Dec;6(12):1493-1504. doi: 10.1038/s41564-021-00983-z. Epub 2021 Nov 22. PMID: 34811531; PMCID: PMC8622360. [Jill Roberts Institute]

General Internal Medicine

Berger RE, Singh HK, Loo AS, Cooley V, Osorio SN, Lee JI, Simon MS. Improving Antibiotic Stewardship for Inpatients with Reported Beta-Lactam Allergies and Limited Access to Penicillin Skin Testing. Jt Comm J Qual Patient Saf. 2021 Dec 9:S1553-7250(21)00315-9. doi: 10.1016/j.jcjq.2021.12.001. Epub ahead of print. PMID: 35031256.

Burchenal C, Tucker S, Soroka O, Antoine F, Ramos R, Anderson H, Tettey NS, Phillips E. Developing Faith-Based Health Promotion Programs that Target Cardiovascular Disease and Cancer Risk Factors. J Relig Health. 2021 Dec 1. doi: 10.1007/s10943-021-01469-2. Epub ahead of print. PMID: 34851497.

Cho J, Nilo D, Sterling MR, Kern LM, Safford MM, Pinheiro LC. Eliciting primary care and oncology provider perspectives on diabetes management during active cancer treatment. Support Care Cancer. 2021 Nov;29(11):6881-6890. doi: 10.1007/s00520-021-06264-z. Epub 2021 May 21. PMID: 34018032.

Bhosale R, Alexander M, Deshpande P, Kulkarni V, Gupte N, Gupta A, Mathad J. Stages of pregnancy and HIV affect diagnosis of tuberculosis infection and Mycobacterium tuberculosis (MTB)-induced immune response: Findings from PRACHITi, a cohort study in Pune, India. Int J Infect Dis. 2021 Nov;112:205-211. doi: 10.1016/j.ijid.2021.09.010. Epub 2021 Sep 10. PMID: 34517050; PMCID: PMC8715310. [Center for Global Health]

Geriatrics & Palliative Medicine

George LS, Polacek LC, Lynch K, Prigerson HG, Abou-Alfa GK, Atkinson TM, Epstein AS, Breitbart W. Reconciling the prospect of disease progression with goals and expectations: Development and validation of a measurement model in advanced cancer. Psychooncology. 2022 Jan 4. doi: 10.1002/pon.5878. Epub ahead of print. PMID: 34984756.

Wen FH, Chou WC, Prigerson HG, Shen WC, Hsu MH, Tang ST. Predictors of Family Caregivers' Depressive- and Prolonged-Grief-Disorder-Symptom Trajectories. J Pain Symptom Manage. 2021 Dec 29:S0885-3924(21)00703-X. doi: 10.1016/j.jpainsymman.2021.12.025. Epub ahead of print. PMID: 34971750.

Sekowski M, Prigerson HG. Conflicted or close: Which relationships to the deceased are associated with loss-related psychopathology? Br J Clin Psychol. 2021 Nov 1. doi: 10.1111/bjc.12344. Epub ahead of print. PMID: 34724233.

Hematology & Medical Oncology

Grossman JE, Muthuswamy L, Huang L, Akshinthala D, Perea S, Gonzalez RS, Tsai LL, Cohen J, Bockorny B, Bullock AJ, Schlechter B, Peters MLB, Conahan C, Narasimhan S, Lim C, Davis RB, Besaw R, Sawhney MS, Pleskow D, Berzin TM, Smith M, Kent TS, Callery M, Muthuswamy SK, Hidalgo M. Organoid Sensitivity Correlates with Therapeutic Response in Patients with Pancreatic Cancer. Clin Cancer Res. 2021 Nov 17. doi: 10.1158/1078-0432.CCR-20-4116. Epub ahead of print. PMID: 34789479.

Aronson BE, Scourzic L, Shah V, Swanzey E, Kloetgen A, Polyzos A, Sinha A, Azziz A, Caspi I, Li J, Pelham-Webb B, Glenn RA, Vierbuchen T, Wichterle H, Tsirigos A, Dawlaty MM, Stadtfeld M, Apostolou E. A bipartite element with allele-specific functions safeguards DNA methylation imprints at the Dlk1-Dio3 locus. Dev Cell. 2021 Nov 22;56(22):3052-3065.e5. doi: 10.1016/j.devcel.2021.10.004. Epub 2021 Oct 27. PMID: 34710357; PMCID: PMC8628258.

Thakkar PV, Kita K, Castillo UD, Galletti G, Madhukar N, Navarro EV, Barasoain I, Goodson HV, Sackett D, Díaz JF, Lu Y, RoyChoudhury A, Molina H, Elemento O, Shah MA, Giannakakou P. CLIP-170S is a microtubule +TIP variant that confers resistance to taxanes by impairing drug-target engagement. Dev Cell. 2021 Dec 6;56(23):3264-3275.e7. doi: 10.1016/j.devcel.2021.09.023. Epub 2021 Oct 20. PMID: 34672971; PMCID: PMC8665049.

Infectious Diseases

Aponte-Melendez Y, Mateu-Gelabert P, Fong C, Eckhardt B, Kapadia S, Marks K. The impact of COVID-19 on people who inject drugs in New York City: increased risk and decreased access to services. Harm Reduct J. 2021 Nov 24;18(1):118. doi: 10.1186/s12954-021-00568-3. PMID: 34819070; PMCID: PMC8611635.

Corley MJ, Pang APS, Rasmussen TA, Tolstrup M, Søgaard OS, Ndhlovu LC. Candidate host epigenetic marks predictive for HIV reservoir size, responsiveness to latency reversal, and viral rebound. AIDS. 2021 Nov 15;35(14):2269-2279. doi: 10.1097/QAD.000000000000003065. PMID: 34482353; PMCID: PMC8563431.

Hupert N, Marín-Hernández D, Gao B, Águas R, Nixon DF. Heterologous vaccination interventions to reduce pandemic morbidity and mortality: Modeling the US winter 2020 COVID-19 wave. Proc Natl Acad Sci U S A. 2022 Jan 18;119(3):e2025448119. doi: 10.1073/pnas.2025448119. PMID: 35012976.

Medical Ethics

Young MJ, Bodien YG, Giacino JT, Fins JJ, Truog RD, Hochberg LR, Edlow BL. The neuroethics of disorders of consciousness: a brief history of evolving ideas. Brain. 2021 Dec 16;144(11):3291-3310. doi: 10.1093/brain/awab290. PMID: 34347037.

Mukherjee D. Looking Ahead: Traumatic Brain Injury, Ethics, and Discharge Planning. J Head Trauma Rehabil. 2021 Oct 25. doi: 10.1097/HTR.000000000000731. Epub ahead of print. PMID: 34698681.

Lahey T, DeRenzo EG, Crites J, Fanning J, Huberman BJ, Slosar JP. Building an Organizational Ethics Program on a Clinical Ethics Foundation. J Clin Ethics. 2020 Fall;31(3):259-267. PMID: 32960808.

Nephrology & Hypertension

Chang A, Mzava O, Lenz JS, Cheng AP, Burnham P, Motley ST, Bennett C, Connelly JT, Dadhania DM, Suthanthiran M, Lee JR, Steadman A, De Vlaminck I. Measurement Biases Distort Cell-Free DNA Fragmentation Profiles and Define the Sensitivity of Metagenomic Cell-Free DNA Sequencing Assays. Clin Chem. 2021 Dec 30;68(1):163-171. doi: 10.1093/clinchem/hvab142. PMID: 34718476; PMCID: PMC8718127.

Liu EC, Lee JH, Loo A, Mazur S, Sultan S, Aull M, Lee JB, Muthukumar T, Hartono C. Casirivimab-Imdevimab (REGN-COV2) for Mild to Moderate SARS-CoV-2 Infection in Kidney Transplant Recipients. Kidney Int Rep. 2021 Nov;6(11):2900-2902. doi: 10.1016/j.ekir.2021.08.032. Epub 2021 Sep 6. PMID: 34514186; PMCID: PMC8418987.

Burnham P, Chen F, Cheng AP, Srivatana V, Zhang LT, Edusei E, Albakry S, Botticelli B, Guo X, Renaghan A, Silberzweig J, Dadhania DM, Lenz JS, Heyang M, Iliev ID, Hayden JA, Westblade LF, De Vlaminck I, Lee JR. Peritoneal Effluent Cell-Free DNA Sequencing in Peritoneal Dialysis Patients With and Without Peritonitis. Kidney Med. 2021 Oct 28;4(1):100383. doi: 10.1016/j.xkme.2021.08.017. PMID: 35072047; PMCID: PMC8767090.

Regenerative Medicine

Itkin T, Rafii S. Cardiovascular diseases disrupt the bone-marrow niche. Nature. 2021 Dec 23. doi: 10.1038/d41586-021-03550-y. Epub ahead of print. PMID: 34949859.

Guo P, Liu Y, Geng F, Daman AW, Liu X, Zhong L, Ravishankar A, Lis R, Barcia Durán JG, Itkin T, Tang F, Zhang T, Xiang J, Shido K, Ding BS, Wen D, Josefowicz SZ, Rafii S. Histone variant H3.3 maintains adult haematopoietic stem cell homeostasis by enforcing chromatin adaptability. Nat Cell Biol. 2022 Jan;24(1):99-111. doi: 10.1038/s41556-021-00795-7. Epub 2021 Dec 27. PMID: 34961794.

Gomez-Salinero JM, Itkin T, Rafii S. Developmental angiocrine diversification of endothelial cells for organotypic regeneration. Dev Cell. 2021 Nov 22;56(22):3042-3051. doi: 10.1016/j.devcel.2021.10.020. PMID: 34813766.

Rheumatology

Guan S, Mehta B, Slater D, Thompson JR, DiCarlo E, Pannellini T, Pearce-Fisher D, Zhang F, Raychaudhuri S, Hale C, Jiang CS, Goodman S, Orange DE. Rheumatoid Arthritis Synovial Inflammation Quantification Using Computer Vision. ACR Open Rheumatol. 2022 Jan 10. doi: 10.1002/acr2.11381. Epub ahead of print. PMID: 35014221.

Jinich S, Schultz K, Jannat-Khah D, Spiera R. B-cell reconstitution is strongly associated with COVID-19 vaccine responsiveness in rheumatic disease patients treated with rituximab. Arthritis Rheumatol. 2021 Dec 15. doi: 10.1002/art.42034. Epub ahead of print. PMID: 34908241.

Barbhaiya M, Levine JM, Bykerk VP, Mandl LA. Immunomodulatory and immunosuppressive medication modification among patients with rheumatic diseases at the time of COVID-19 vaccination. Lancet Rheumatol. 2021 Dec 8. doi: 10.1016/S2665-9913(21)00372-6. Epub ahead of print. PMID: 34901886; PMCID: PMC8651251.

Suzanne Ross Associate Director of Communications Weill Department of Medicine Weill Cornell Medical College suross@med.cornell.edu