



## Stanford Medicine Residency Research Interest Group Newsletter

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Dear Colleagues,

Welcome to the Fall 2021 edition of our medicine residency research newsletter! This publication is aimed at both highlighting our residents' exciting projects as well as informing trainees and recruits about the scholarly work taking place at Stanford. We define *research* comprehensively, including scholarly work done in quality improvement, global health, outcomes research, medical education, clinical investigation, translational research, implementation science, qualitative studies, clinical trials, and device/service innovation. Without further ado:

### **Stanford Resident Researcher Spotlight:**

This Autumn, we have the incredible opportunity to spotlight one of our true research superstars, **Stefano Testa!**

#### **Tell us a little about yourself**

ST: I grew up in Naples, Italy and attended medical school at the University of Naples Federico II in Italy. During medical school I realized that I wanted to combine translational laboratory research with clinical practice as a physician-scientist, with a specific focus on oncology. To this end, after graduating from medical school, I moved to the USA to start a post-doctoral position at Stanford in Dr. Ronald Levy's laboratory working on cancer immunology and immunotherapy. As a post-doc I studied a novel cancer vaccination strategy based on the intra-tumoral delivery of immune-active agents, called *in situ vaccination*. During the same time, I also worked on the development and in vivo applications of Charge Alterable Releasing Transporters (CARTs), a novel mRNA delivery platform with potential applications in cancer vaccine development.

#### **Tell us about your current QI/research activities**

ST: I am currently involved in several research projects in both solid tumor oncology and malignant hematology. My primary research mentors during residency have been Dr. Kristen Ganjoo and Dr. Nam Bui in sarcoma, and Dr. Michaela Liedtke with whom I have been working on AL amyloidosis. I recently had the opportunity to present the results of our retrospective study comparing outcomes of adult and pediatric patients with osteosarcoma at the annual meeting of the Musculoskeletal Tumor Society in Baltimore, MD. We have also been able to write a manuscript based on the results of this study that is currently under peer review for publication. With Dr. Ganjoo and Dr. Bui I have also been working on a project that focuses on trans-arterial radioembolization (TARE) in patients with both primary and metastatic hepatic sarcomas. We found that patients achieving a good tumor response in the liver 6 months after TARE tended to have longer overall survival with a favorable toxicity profile. These results suggest that TARE is a safe and effective treatment modality for patients with unresectable hepatic sarcomas that generally have an extremely poor prognosis with low rates of response to systemic chemotherapy. Another project that I am excited about studies the predictive and prognostic value of next generation sequencing in patients with AL amyloidosis on which I have been working on with Dr. Liedtke.



#### **Why Stanford?**

ST: As a medical student I had the opportunity to come to Stanford as a visiting sub-intern on the inpatient Medical Oncology service. That was an amazing experience that not only reinforced my interest and commitment to oncology but also gave me the possibility to work closely with the Internal Medicine residents on the service experiencing first-hand the sense of camaraderie and the supportive culture of our program. During that month I was also able to meet and work with some of the oncology faculty here at Stanford and I could see how approachable and dedicated to teaching and mentoring they are. I believe that Stanford is an institution where I can continue to grow and build an academic and personal community as I plan for a career as physician-scientist.

#### **What advice do you have for interns and residents interested in scholarly activity?**

ST: If you are interested in doing research during residency consider getting involved with one or more projects early on during intern year. Reach out to faculty working on areas that align with your interests and ask if they might have projects you could work on part-time. Do not get discouraged if you need to reach out to a few potential mentors before finding the right person and the right project. Perseverance always pays off!

#### **What are your plans for the future?**

ST: Next year I am planning to apply for hematology-oncology fellowship with the goal of pursuing a career in academic medicine as physician-scientist with a special focus on immuno-oncology.

## Grand Rounds Highlight:

Our very own co-resident, Dr. Mayuri Chandran, presented at Stanford Medicine Grand Rounds! Her presentation entitled “Racial Disparities in Healthcare and Health” identified the challenges facing the medical field when it comes to racial disparities. But, it also offered hopeful insights into how we can work towards making progress on racial health equity. Her presentation is available on the [Stanford Department of Medicine Youtube channel](#), along with all other recent Grand Rounds presentations.



## Department of Medicine Grand Rounds

### Racial Disparities in Healthcare and Health

- Kevin Schulman, MD, Professor of Medicine, Clinical Excellence Research Center, Stanford University
- Mayuri Chandran, MD, Resident, Stanford University



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## Questions



What is the impact of healthcare on health outcomes

What are the impacts of socioeconomic factors on health outcomes

How can we have the greatest impact on health outcomes in our country



Economic  
Factors

Social Factors



Health  
Behaviors

Physical  
Environment



## Scholarly Work:

Congratulations to the following authors for their most recent publications and presentations over the past few months!

### *Third Year+ Residents:*

1. **Emily C. Liang**, Chen C, Lu R, Mannis GN, Muffly L. Measurable Residual Disease Status and FLT3 Inhibitor Therapy in Patients with FLT3-ITD-Mutated AML Following Allogeneic Hematopoietic Cell Transplantation. Society of Hematologic Oncology Annual Meeting (virtual). 2021. [Poster Presentation]
2. **Emily C. Liang**, Chen C, Lu R, Mannis GN, Muffly L. Measurable Residual Disease Status and FLT3 Inhibitor Therapy in Patients with FLT3-ITD-Mutated AML Following Allogeneic Hematopoietic Cell Transplantation. Bone Marrow Transplantation. 2021. Accepted.
3. **Max McClure**, Rezende IM, Kang AS, Pereira LS, Cenachi A, Alves PA, Teixeira-Carvalho A, Martins-Filho OA, Paiva Drumond B, LaBeaud AD. Risk-stratifying yellow fever patients at the time of admission. American Society of Tropical Medicine and Hygiene Annual Meeting. National Harbor, Maryland. 2021. [Oral Presentation]
4. **Christian O'Donnell**, Rodriguez AJ, Madhok J, Sharifi H, Wang H, O'Brien CG, Boyd J, Hiesinger W, Hsu J, Hill CC. The Use of Factor Eight Inhibitor Bypass Activity (FEIBA) for the Treatment of Perioperative Hemorrhage in Left Ventricular Assist Devices. J Cardiothorac Vasc Anesth. 2021. [PMID: 34034934]
5. **Allyson Richardson**, Boone BR, Brand R, Centeno B, Chennat J, Das R, DeWitt J, Dugum M, Easler J, El-Dika S, Engels M, Fasanella K, Gabbert C, Hogg M, Khalid A, Kim V, Klapman J, Kubiliun N, Lee K, Mansour J, Marsh W, McGrath K, Nasr J, O'Broin Lennon AM, Ongchin M, Paniccia A, Park WG, Permuth J, Polanco P, Sarkaria S, Sawas T, Schmidt C, Singh H, Skef W, Slivka A, Tavakkoli A, Thakkar A, Vandenbussche C, Vanderveldt D, Wallace M, Zeh H, Zureikat, Singhi A. Next-Generation Sequencing of Pancreatic Cyst Fluid is Sensitive and Specific for the Classification and the Detection of Advanced Neoplasia in Mucinous Cysts: A Prospective Multi-Institutional Study. American Pancreatic Association Meeting 2021. Miami, FL. 2021. [Oral Presentation]
6. **Sarah Waliyany**, Han Zhu, Heather Wakelee, Sukhmani K. Padda, Millie Das, Kavitha Ramchandran, Nathaniel J. Myall, Thomas Chen, Ronald M. Witteles, Joel W. Neal. Pharmacovigilance analysis of cardiac toxicities associated with targeted therapies for metastatic non-small cell lung carcinoma. Journal of Thoracic Oncology. 2021 August. [PMID: 34418561].
7. **Maggie Zhou**, Bui N. "What's New in Sarcoma in 2021." August 2021. Stanford Cancer Institute Frontiers in Cancer Clinical Translation 2021 Seminar Series.
8. **Maggie Zhou**, Crommie D, Khaki A, Shah S, Srinivas S, Ruiz SM, Moore K, Chien J, Gill H, Sonn G, Lu Y, Stafford RS, Fan AC. "A Phase I Study of the Tolerability/Palatability of Synthetic Meal Replacement in Patients with Prostate Cancer." 2021. Stanford Oncology and Hematology Annual Asilomar Research Retreat.
9. Doshi A, **Maggie Zhou**, Bui N, Wang DS, Ganjoo K, Hwang G. "Safety and Clinical Outcomes of Cryoablation during Immunotherapy in Patients with Metastatic Soft Tissue Sarcoma." Journal of Vascular and Interventional Radiology. 2021 Aug 31; S1051-0443(21)01322-1. doi: 10.1016/j.jvir.2021.08.017. Epub ahead of print. PMID: 34478852.
10. Moding EJ, Sears TJ, Nemat-Gorgani N, Luca BA, Steen CB, **Maggie Zhou**, Mohler DG, van de Rijn M, Ganjoo KN, Charville GW, Bui NQ, Newman AM. "Sarcoma Cellular Ecosystems Are Associated with Prognosis and Predict Immunotherapy Response." 2021. Connective Tissue Oncology Society Virtual Annual Meeting.

### *Second Year Residents:*

1. **Natasha Steele**, Luks AM. An Anomalous Cause of Pulmonary Hypertension. Annals of Thoracic Medicine. 2021. PMID 34468285 <https://doi.org/10.1513/AnnalsATS.202102-113CC>
2. **Stefano Testa**, Million L, Longacre T, Bui N. Uterine Leiomyosarcoma with FN1-Anaplastic Lymphoma Kinase Fusion Responsive to Alectinib and Lorlatinib. Case Reports in Oncology. 2021. [PMID: 34248545]
3. **Stefano Testa**, Hu B, Pribnow A, Spunt S, Charville G, Avedian R, Steffner R, Bui N, Ganjoo K, Mohler D. A Retrospective Comparative Analysis of Outcomes and Prognostic Factors in Adult and Pediatric Patients with Osteosarcoma. MSTs Annual Meeting 2021. Baltimore, MD. October 2021. [Oral Presentation]
4. **Lauren Ulsh**, Nguyen L, Gurland B, Neshatian L. Utilizing Anorectal Manometry to Predict the Phenotype of Patients Who Will Benefit From a Squatting Assist Stool. ACG 2021 Conference. Las Vegas, NV. 2021. [Oral Presentation]

### *First Year Residents:*

1. **Emma St. Martin**, Ferrer A, Mangaonkar AA, Khan SP, Kohorst MA, Joshi AY, Hogan WJ, Olteanu H, Moyer AM, Al-Kali A, Tefferi A, Chen D, Wudhikarn K, Go R, Viswanatha D, He R, Ketterling R, Nguyen PL, Oliveira JL, Gangat N, Lasho T, Patnaik MM. Spectrum of hematological malignancies, clonal evolution and outcomes in 144 Mayo Clinic patients with germline predisposition syndromes. Am J Hematol. 2021 Aug 14. doi: 10.1002/ajh.26321. Epub ahead of print. PMID: 34390506.
2. **Emma St. Martin**, Ferrer A, Wudhikarn K, Mangaonkar A, Hogan W, Tefferi A, Gangat N, Lasho T, Altman JK, Godley LA, Patnaik MM. Clinical features and survival outcomes in patients with chronic myelomonocytic leukemia arising in the context of germline predisposition syndromes. Am J Hematol. 2021 Sep 1;96(9):E327-E330. doi: 10.1002/ajh.26250. Epub 2021 Jun 4. PMID: 34028844.

And congratulations to our newest Stanford Internal Medicine alumni! Their recent scholarly work is shared below.

*Recent Alumni:*

1. Chinthrajah, R. S., Cao, S., **Theresa Dunham**, Sampath, V., Chandra, S., Chen, M., Sindher, S., Nadeau, K. Oral immunotherapy for peanut allergy: The pro argument. *The World Allergy Organization Journal*. 2020. PMID: 33005286
2. Kim D, **Luis Vazquez-Montesino**, Li A, Cholankeril G, Ahmed A. Diet quality and its association with nonalcoholic fatty liver disease and all-cause and cause-specific mortality *Hepatology* 2020. DOI: 10.1002/hep.31158
3. Kim D, **Luis Vazquez-Montesino**, Li A, Cholankeril G, Ahmed A. Inadequate Physical Activity and Sedentary Behavior Are Independent Predictors of Nonalcoholic Fatty Liver Disease. *Hepatology* 2020. DOI: 10.1002/hep.31158
4. Akhtar DH, Iqbal U, **Luis Miguel Vazquez-Montesino**, Dennis BB, Ahmed A. Pathogenesis of Insulin Resistance and Atherogenic Dyslipidemia in Nonalcoholic Fatty Liver Disease. *Journal of clinical and Translational Hepatology* 2019. DOI:10.14218/JCTH.2019.0002
5. Yoo E, Kim D, **Luis Vazquez Montesino**, Li A, Escobar J, Tighe S, Fernandez C, Cholankkeril G, Ahmed A. Diet quality and its association with nonalcoholic fatty liver disease and all-cause and cause-specific mortality. *Liver International*. *Liver International* 2020. DOI: 10.1111/liv.14374
6. **Gabriela Spencer-Bonilla**, Serrano V, Gao C, Sanchez M, Carroll K, Gionfriddo MR, Behnken EM, Hargraves I, Boehmer KR, May C, Montori VM. The work of being a patient with diabetes: a mixed methods study. *Mayo Clinic Proceeding, Innovations Quality & Outcomes*. 2021 Apr 8. [PMID: 33997635]
7. **Gabriela Spencer-Bonilla**, Njoroge JN, Pearson K, Witteles RM, Aras MA, Alexander KM. Racial and ethnic disparities in transthyretin cardiac amyloidosis. *Current Cardiovascular Risk Reports*. 2021 Apr 4.
8. **Gabriela Spencer-Bonilla**, Chung S, Sarraju A, Heidenreich P, Palaniappan L, Rodriguez F. Statin use in elderly patients with stable atherosclerotic cardiovascular disease. *Journal of the American Geriatrics Society*. 2021 Jan 7. [PMID: 33410499]
9. Knight G, **Gabriela Spencer-Bonilla**, Maahs DM, Blum MR, Valencia A, Zuma B, Prahalad P, Sarraju A, Rodriguez F, Scheinker, D. Multimethod, multidataset analysis reveals paradoxical relationships between sociodemographic factors, Hispanic ethnicity and diabetes. *BMJ Open Diabetes*. 2020 Nov 1. [PMID: 3329378]
10. Valencia A, Bongeka ZZ, **Gabriela Spencer-Bonilla**, Lopez L, Scheinker D, Rodriguez F. The Hispanic Paradox in the Prevalence of Obesity at the County-Level. *Obesity Science & Practice*. 2020 Oct 7. DOI: 10.1002/osp4.461 [In press]
11. **Gabriela Spencer-Bonilla**, Alexander KM, Witteles RM. Advances in the diagnosis and management of transthyretin amyloid cardiomyopathy. *Current Treat Options in Cardiovasc Med*. [In press]
12. Sarraju A, **Gabriela Spencer-Bonilla**, Rodriguez F, Mahaffey K. Canagliflozin and Cardiovascular Outcomes in Type 2 Diabetes. *Future Cardiol*. 2020 Aug 4. PMID 32748638
13. **Jiho Han**, Moayed Y, Yang W, Henricksen EJ, Lee R, Purewal S, Chang E, Duclos S, Lyapin A, Tremblay-Gravel M, Alexander KM, Kawana M, Hiesinger W, Teuteberg JJ, Khush KK. Severe primary graft dysfunction: impact of the new UNOS heart allocation system. *International Society for Heart and Lung Transplantation*. Montreal, Canada 2020 [Oral presentation, virtual]
14. **Jiho Han**, Moayed Y, Yang W, Henricksen EJ, Lee R, Purewal S, Chang E, Duclos S, Lyapin A, Feng KY, Hiesinger W, Teuteberg JJ, Khush KK. Take the first available heart: use of higher-risk donors in recipients with pre-transplant mechanical circulatory support. *International Society for Heart and Lung Transplantation*. Montreal, Canada 2020 [Oral presentation, virtual]
15. Ando M, Takayama H, Kurlansky PA, **Jiho Han**, Garan AR, Topkara VK, Yuzefpolskaya M, Colombo PC, Farr M, Naka Y, Takeda K. Effect of pulmonary hypertension on transplant outcomes in patients with ventricular assist devices. *Annals of Thoracic Surgery*. 2020 [PMID: 31770504]
16. Ganesan C, **Benjamin Weia**, Thomas IC, Song S, Velaer K, Seib CD, Conti S, Elliot C, Chertow GM, Kurella Tamura M, Leppert JT, Pao C. Analysis of primary hyperparathyroidism screening among US veterans with kidney stones. *JAMA Surg*. 2020. PMID: 32725208
17. **James Dickerson**, Ragavan MV, Parikh DA, Patel MI. Healthcare Delivery Interventions to Reduce Cancer Disparities Worldwide. *World Journal of Clinical Oncology*. 2020; 11(9): 705-722
18. Parikh DA & **James Dickerson**, Kurian AW. Health Disparities in Germline Genetic Testing for Cancer Susceptibility. *Current Breast Cancer Reports*. 2020; 51-58

Best,  
Stanford Internal Medicine Research Interest Group

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*If you have research you'd like to have highlighted in the newsletter (or know of work other residents or recent graduates have taken part in) or are interested in being involved in the research interest group please make sure to email us at [jassi@stanford.edu](mailto:jassi@stanford.edu) or [esonekpo@stanford.edu](mailto:esonekpo@stanford.edu).*