Stanford MEDICINE

Department of Internal Medicine

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Stanford Medicine Residency Research Interest Peer Group Newsletter – Spring Edition

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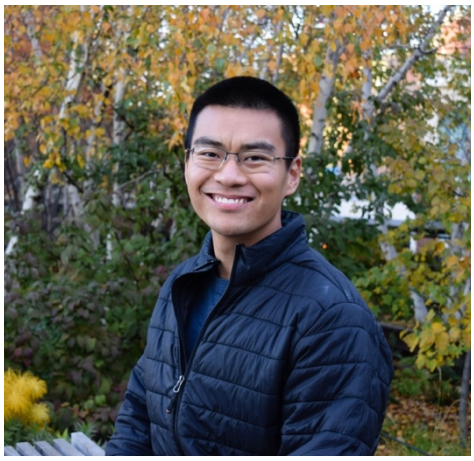
Dear Colleagues,

Welcome to the Spring edition of our medicine residency research newsletter! This initiative is an effort to both highlight exciting projects involving our current housestaff and recent graduates (to recognize you in the program for your achievements) but also inform trainees about the types of investigation being performed at Stanford. We define *research* comprehensively, as quality improvement, global health, outcomes research, medical education, clinical investigation, translational research, implementation science, qualitative studies, clinical trials, and device/service innovation all count. This newsletter will also announce courses or resources available to our residents on campus. Without further ado:

Resident Research Spotlight:

This quarter's research spotlight highlights R3 Ron Li!



Tell us a little about yourself

RL: I grew up in New York and went to college and medical school at Northwestern, where I met my wife (and now co-resident!) Silvia. Early in medical school, I was drawn to disease prevention and was actively involved in several community health programs in the Chicago area. Nevertheless, I wanted to learn a set of methods to more rigorously study these issues, so ended up pursuing a Doris Duke Clinical Research Fellowship between my second and third year of medical school at the Center for Epidemiology and Biostatistics at the University of Pennsylvania. It was during this fellowship when I first seriously delved into clinical research. I became interested in using epidemiological methods to better understand cardiovascular disease prevention for specific patient populations, which led me to do work studying the links between psoriasis and CAD as well as young adulthood dyslipidemia and cardiovascular disease later in life. My experiences with epidemiological research also helped me to appreciate the ability of data to guide our understanding of relationships and inform our decisions, which eventually shaped my interest in informatics after coming to Stanford.

Tell us about your current QI/research activities

RL: I am interested in developing methods to better capture, scale, and use the vast amounts of data and knowledge that individual clinicians generate on a daily basis. One project I am working on focuses on the question of how problem based charting in EPIC can improve the accuracy of electronic problem lists as a method for structuring clinician-generated clinical data. I will be giving an oral presentation for that project at the American Medical Informatics Association summit in SF in March. I am also leading a team of residents to build a tool called WikiConsult, an online wiki where Stanford residents and fellows can share best practices about clinical consults. WikiConsult will be launched in April and we will be studying its effectiveness. I have also been able to consult part time for a patient engagement startup called Healthloop.

Why Stanford?

RL: Being at Stanford has shaped so much of how I think about medicine, my career, and my life in general. I knew when I first interviewed here for residency that Stanford is a special place. I like that we are always looking forward and thinking about our role in driving the innovations that will define what medicine will be in the future. We are lucky to be connected to a world class university and Silicon Valley, which comes with a wealth of unique opportunities. But most of all, it is the people here who make Stanford special. I really feel like we are part of a family, and I am proud to have grown alongside such amazing people during my time as a resident here.

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

RL: Stay curious. Many projects end up stemming from questions that form organically from thinking about things that interest you. I also attribute much of my habits and how I think about research to my mentors who I've been lucky to encounter over time. Finding mentors can sometimes be challenging, but there is almost always something you can learn from the people who have done it before.

Papers and Presentations:

Congratulations to the following authors for their recent publications and presentations in the past semester!

Third Year Residents:

1. **Frank W. Chen**, Sundaram V, Chew TA, Ladabaum U. (2017), Advanced-stage colorectal cancer in persons younger than 50 years not associated with longer duration of symptoms or time to diagnosis. Clinical Gastroenterology and Hematology. 2017. [PMID: 27856366]
2. Gulati G, **David Ouyang**, Ha R, Banerjee D. Optimal timing of same-admission orthotopic heart transplantation after left ventricular assist device implantation. World Journal of Cardiology. 2017.
3. **David Ouyang**, Gulati G, Banerjee D. Incidence and Outcomes of Acute Circulatory Support Prior to Heart Transplantation. International Society for Heart & Lung Transplantation 37th Annual Meeting and Scientific Sessions. San Diego, CA. 2017. [Oral Presentation]
4. Gulati G, **David Ouyang**, Banerjee D. Differential survival benefit of IABPs and PVADs by procedural timing and clinical indication. American College of Cardiology's 66th Annual Scientific Session. Washington D.C. 2017. [Oral Presentation]
5. Sing D, **David Ouyang**, Hu S. Gender Trends in Authorship of Spine-Related Academic Literature – A 38-Year Perspective. North American Spine Society 31st Annual Meeting. Boston, MA. 2016. [Oral Presentation]
6. Kohli P, Knowles JW, **Ashish Sarraju**, Waters DD, Reaven G. Metabolic Markers to Predict Incident Diabetes Mellitus in Statin-Treated Patients (from the Treating to New Targets and the Stroke Prevention by Aggressive Reduction in Cholesterol Levels Trials). American Journal of Cardiology. 2016. [PMID: 27614854]
7. Yong C, **Leo Ungar**, Abnousi F, Asch SM, Heidenreich P. Racial Differences in Quality of Care and Outcomes among Patients with Acute Coronary Syndrome. American College of Cardiology's 66th Annual Scientific Session. Washington D.C. 2017. [Oral Presentation]
8. Rodriguez F, Hellkamp A, **Leo Ungar**, Becker RC, Berkowitz SD, Breithardt G, Fox KA, Hacke W, Halperin JL, Hankey GJ, Nessel CC, Piccini JP, Singer DE, Patel M, Mahaffey KW. Implications of Patient-Reported Treatment Satisfaction for Discontinuation of Rivaroxaban versus Warfarin in ROCKET AF. Quality of Care and Outcomes Research in Cardiovascular Disease and Stroke. Alexandria, VA. 2017. [Poster Presentation]

Second Year Residents:

1. **Alvin S. Chen** and Gavi B. IVC Filters - A Pain in the Gut? Society of General Internal Medicine. Los Angeles, CA. 2017. [Poster Presentation]
2. Saini D, **Aaron F. Grober**, Hadley D, Froelicher V. Normal computerized Q wave measurements in healthy young athletes. Journal of Electrocardiology. 2017. [PMID: 28159337]
3. **Tomi Jun**, Chen VL, Yeh M, Yang JD, Le M, Nguyen P, Nasra GH, Huang CF, Dai C, Huang J, Chuang W, Roberts LR, Yu M, Nguyen MH. Absence of cirrhosis (in 45.8%), more advanced tumor staging and poorer long-term survival in cryptogenic hepatocellular carcinoma (HCC) patients compared to patients with viral disease: results of a multicenter international cohort of 4,315 HCC patients. Asian Pacific Association for the Study of the Liver Conference. Shanghai, China. 2017. [Poster Presentation]
4. **Rachita Navara**, **Leef G**, Shenasa F, Kowalewski C, Baykaner T, Zaman J, Wang P.J., Narayan S.M. Proposed Mechanism for Termination of Atrial Fibrillation by Pulmonary Vein Ablation Prior to Isolation: Eliminating Rotational Drivers. European Cardiac Arrhythmia Society 13th Annual Scientific Congress. Rome, Italy. 2017. [Oral Presentation]
5. **Rachita Navara**, **Leef G**, Shenasa F, Rogers A.J., Meckler G, Baykaner T, Zaman J, Brodt C, Viswanathan M, Wang P.J., Narayan S.M. Do Atrial Fibrillation Sources Near Pulmonary Veins Have Unique Properties Compared to Sources at Other Locations? European Cardiac Arrhythmia Society 13th Annual Scientific Congress. Rome, IT. 2017. [Poster Presentation]
6. **Rachita Navara**, Meckler G, Kowalewski C, Shenasa F, Baykaner T, Zaman J, Alhusseini M, Hossainy S, Krummen D, Brachmann J, Viswanathan M, Park S, Turakhia M, Wang P.J., Narayan S.M. What Explains Atrial Fibrillation Mechanisms at Sites Where Ablation Terminates Persistent Atrial Fibrillation Prior to Pulmonary Vein Isolation? 23rd Annual International AF Symposium. Orlando, FL. 2017. [Poster Presentation]
7. **Rachita Navara**, **Leef G**, Shenasa F, Kowalewski C, Meckler G, Baykaner T, Rogers A.J., Zaman J, Park S, Zei P, Wang P.J., Narayan S.M. Drivers of Persistent Atrial Fibrillation: Do Focal or Rotational Regions Differ in Stability over Time? 23rd Annual International AF Symposium. Orlando, FL. 2017. [Poster Presentation]
8. **Kai E. Swenson**, Dziura JD, Aydin A, Reynolds J, Wira CR III. Evaluation of a novel 5-group classification system of sepsis by vasopressor use and initial serum lactate in the emergency department." Internal and Emergency Medicine. 2017. [PMID: 28132131]

First Year Residents (Interns):

1. **Julia J. Chang**, Bena J, Kannan S, Kim J, Burguera B, Kashyap SR. Limited Carbohydrate Refeeding Instruction for Long-Term Weight Maintenance Following a Ketogenic, Very-Low-Calorie Meal Plan. Endocrine Practice. 2017. [PMID: 28225305]
2. Grosz AM, Gutierrez D, Lui AA, **Julia J. Chang**, Cole-Kelly K, Ng H. A Student-Led Introduction to Lesbian, Gay, Bisexual, and Transgender Health for First-Year Medical Students. Family Medicine. 2017. [PMID: 28166581]
3. Wallach JD, **Patrick G. Sullivan**, Trepanowski JF, Sainani KL, Steyerberg EW, Ioannidis JP. Evaluation of evidence of statistical support and corroboration of subgroup claims in randomized clinical trials. JAMA Internal Medicine. 2017. [PMID: 28192563]
4. **Bo Wang**, Studdert DM, Sarpatwari A, Franklin JM, Landon J, Kesselheim AS. The effect of federal and state off-label marketing investigations on drug prescribing: the case of olanzapine. PLoS ONE. 2017. [PMID: 28388667]
5. Rathi VK, **Bo Wang**, Ross JS, Downing NS, Kesselheim AS, Gray ST. Clinical evidence supporting US Food and Drug Administration approval of otolaryngologic prescription drug indications, 2005-2014. Otolaryngology-Head and Neck Surgery. 2017. [PMID: 28116974]
6. Rathi VK, **Bo Wang**, Ross JS, Downing NS, Kesselheim AS, Gray ST. Clinical evidence supporting US Food and Drug Administration premarket approval of high-risk otolaryngologic devices, 2000-2014. Otolaryngology-Head and Neck Surgery. 2017. [PMID: 28093943]
7. Hwang TJ, Carpenter D, Lauffenburger JC, **Bo Wang**, Franklin JM, Kesselheim AS. Outcomes and reasons for failure of investigational therapeutics and vaccines in late-stage clinical development. JAMA Internal Medicine. 2016. [PMID: 27723879]

Recent Graduates:

1. **Andrew Y. Chang**, Nabaale, H, Nalubwama, I. Ssinabulya, E. Okello, C. Longenecker, A. Webel. Characteristics and Motivations of Women of Reproductive Age in Uganda with Rheumatic Heart Disease: A Mixed Methods Study. Consortium of Universities for Global Health Annual Meeting. Washington D.C. 2017. [Abstract]
2. Wang L, Miyahira AK, Simons D, Lu X, **Andrew Y. Chang**, Wang C, Suni M, Maino VC, Dirbas FM, Yim JH, Waisman J, Lee PP. IL-6 Signaling in Peripheral Blood T Cells Predicts Clinical Outcome in Breast Cancer. Cancer Research. 2016. [PMID: 27879265]

Methods, Materials, Mentors:

- Please see http://lane.stanford.edu/classes-consult/laneclasses.html for a list of upcoming research courses offered by Lane Library. Many of these classes are incredibly helpful, including advanced PubMed use, Data Visualization, SQL, Systematic Review Methodology, MATLAB, Introduction to R, and EndNote/Zotero/Mendeley among many others. Highly recommended!

- **Upcoming courses include:**
  - Getting to Know Stanford Medicine Box: TUE, APRIL 18, 2-3:30, Lane Library Conference Room
  - Systematic Reviews: Literature Database Selection, Search Strategies & Reference Management: WED, APRIL 12, 2-3:30 pm, Lane Conference Room
  - More Than Text: Digital Bioresearch Image & Video Resources: TUE, MAY 16, 2-3:15, Lane Library Conference Room
  - Quick-Start: Biomedical Research Toolkit: THU, APRIL 13, 2-3:30 pm, Lane Library Conference Room
  - Basic to Advanced PubMed: APRIL 19th, 2-3:15 pm, Alway Computer Lab Room M206
  - EndNote: Basic to Advanced: WED, MAY 10, Alway Computer Lab Room M206
  - Zotero, Mendeley, EndNote, and PaperPile: TUE, MAY 2nd, 2-3:30 pm, Lane Library Conference Room
  - Keeping Current: Stay Up to Date with the Latest Biomedical Research: WED, APRIL 26, 2-3:15 pm, Lane Library Conference Room

Speeches, Seminars, Sessions:

- 2017 Stanford Big Data in Biomedicine Conference: May 24-25. More information at: https://bigdata.stanford.edu

If you have academic or innovation activities that you'd like to have highlighted in the newsletter (or know of work other residents or recent graduates have taken part in) please e-mail us at bwang18@stanford.edu. These include publications of any authorship status (first, second, third, etc.), presentations, QI projects, patents, etc. **If your research was not recognized this edition, please e-mail us, so we can include it next time.** Also, feel free to send us any interesting courses, lectures, or resources you find out about on campus. If you are interested in helping out with the research interest peer group or the newsletter, please contact us at the e-mail address listed above. Thanks for reading!

Best,
Stanford Internal Medicine Research Interest Peer Group Steering Committee
Co-Leads: Bo Wang, Jimmy Tooley
Advisory Committee: Andy Chang, Linda Geng, Ashish Sarraju

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) please make sure to email us at bwang18@stanford.edu. If you are interested in helping out with the research interest peer group or the newsletter, please contact us at the e-mail listed above.

"To have striven, to have made the effort, to have been true to certain ideals – this alone is worth the struggle."
– Sir William Osler