Dear Colleagues,

Welcome to the Fall 2017 edition of our medicine residency research newsletter! The scholarly work done by our housestaff is nothing short of spectacular. This initiative is aimed at both highlighting their exciting projects as well as informing trainees and recruits about the types of investigations 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 Linda Geng!

**Tell us a little about yourself**
LG: I moved from China to Sweden at a young age, and it was there, while frequently visiting my father's laboratory, where I first witnessed the fun, the joy, and the struggles of scientific discovery. My first research project was in high school using NMR spectroscopy to determine the structure of a platelet aggregation factor and have since ranged from characterizing the proteins from the anthrax bacterium to using mouse models to study the role of the innate immune system in inflammatory bowel disease. After undergraduate studies at Rice University, I joined the Medical Scientist Training Program at the University of Washington and completed my thesis training at the Fred Hutchinson Cancer Research Center under Dr. Stephen Tapscott. Together with a multinational team of scientists and clinicians, we unraveled the disease mechanism of an inherited muscular dystrophy called FSHD. It was then that I realized my passion for investigating mystery diseases.

**Why Stanford?**
LG: When I was interviewing for residency programs, Stanford had just been selected by the NIH to be one of the few clinical sites around the country to be part of the new Undiagnosed Disease Network (UDN). It was a unique opportunity for me to explore first-hand my passion in solving medical mysteries through team science. I initially started residency with plans to short-track, but ultimately decided to complete the full three years of clinical training due to my wonderful experience here at Stanford. Across the three teaching hospitals, we see diverse pathology that includes many fascinating and challenging clinical cases. There is great flexibility in carving out your own unique career path, and the program leadership and faculty help support your goals even if they change like mine have. Most of all, it is my diversely talented, amazingly accomplished, and genuinely compassionate co-residents who inspire me on a daily basis.

**Tell us about your current QI/research activities**
LG: My primary focus now is being involved with the UDN case investigations as well as helping to develop the educational aspect of the UDN and clinical genomics under the leadership of Drs. Euan Ashley (Cardiology), Matthew Wheeler (Cardiology), and Jason Hom (Hospitalist). Earlier this year, I presented a case at Medicine Grand Rounds alongside Drs. Sarada Sakamuri (Neurology) and Hannes Vogel (Pathology) about a patient I saw during my UDN/Genomics rotation who had experienced decades of exertional rhabdomyolysis finally found at Stanford to have a defect in mitochondrial fatty acid metabolism that can be treated with a simple food supplement. This case helped solidify my decision to pursue this type of work as a career. During my upcoming Chief year, my goal will be to work with the UDN and our residency leadership to further integrate this program into our training experience and to expand its clinical service.

**What advice do you have for interns and residents interested in scholarly activity?**
LG: Begin searching for a mentor early, one who not only shares in your scholarly passion but is also invested in your professional success. Although it may be tough early in residency to dedicate much time to actually performing the research, reading the relevant literature and formulating a solid plan with your mentor can help you hit the ground running when ready. Stanford has many avenues for finding supportive mentors and innovative projects, from our residency-specific Pathways of Distinction (PODs) to the medical school/GME-wide Stanford Society of Physician Scholars (SPSS) program. We are also directly connected to a premier university campus, where the opportunities for collaborations and interdisciplinary endeavors are truly endless.
Stanford Faculty Researcher Spotlight:

We are delighted to introduce our research newsletter’s Stanford Faculty Researcher Spotlight section, in which we interview accomplished academic researchers to learn about their career paths and glean words of wisdom to guide us in our own research pursuits.

For our inaugural Stanford Faculty Researcher Spotlight, we have the privilege of speaking with Dr. Jerome Kassirer.

Jerome P. Kassirer, MD, is Distinguished Professor and Senior Assistant to the Dean at Tufts University School of Medicine. In editorials in the New England Journal of Medicine, and in multiple publications elsewhere, he has promoted professionalism, ethical scientific conduct, patient involvement in decision making, appropriate use of firearms, reliable assessment of the quality of healthcare, and rational approaches to medical diagnosis and decision-making. He has been critical of for-profit medicine, the abuses of managed care, political intrusions into medical decisions, and financial conflicts of interest.


Dr. Kassirer served as Editor-in-Chief of the New England Journal of Medicine (1991-1999), on the American College of Physicians' Board of Governors and Board of Regents, chaired the National Library of Medicine's Board of Scientific Counselors, and is a past Chairman of the American Board of Internal Medicine. He has been elected to the Association of American Physicians, the National Academy of Medicine of the National Academy of Sciences, and the American Academy of Arts and Sciences. He currently teaches, mentors, and consults at Tufts, Yale, and Stanford Medical Schools.

Tell us a bit about yourself and the path you took to lead one of the most renowned medical journals

JK: I never aspired to be the editor of a journal, let alone arguably the most prestigious clinical journal in the world. But the experiences I had and the career paths I chose led the search committee to conclude that I would be a serious candidate. These experiences included a substantial involvement as an active clinician, stint in hands-on clinical research, involvement with editing, and research in clinical decision-making and medical cognitive science. I actually never applied for the job; committee members sought me out after one or more thought I might be suited for the task.

Residents often find themselves in a dilemma when it comes to research during their training: pursue more "bite-size" pieces (shorter timeline to carry out and publish) vs “deeper-dive” endeavors (longer timeline but potentially more impactful). How do you recommend approaching this dilemma?

JK: Digging deep early in a career is critical in establishing ability and expertise, so high quality publications in highly considered journals count for a lot. Concentrating on important projects doesn't exclude an occasional foray into an op-ed piece or a short sounding board or perspective piece. But such quick pieces must be genuinely important and not detract from the mission of outstanding research.

An often-cited standard to determine the gravitas of a peer-reviewed paper is the impact factor of the journal in which it is published. What are your opinions of this approach, and what are other metrics that can be used for assessing the impact of a publication?

JK: The impact factor is a seriously flawed indicator of a journal's worth, and it can be manipulated by a journal editor by, for example, accepting methodology articles that are likely to be highly quoted. Unfortunately, the impact factor is still widely used. There is no satisfactory substitute, and a journal's reputation often is more important. Ideally we'd like to know a lot more about individual journals: how quickly they make judgments about manuscripts, what the nature of their peer review system looks like, how much attention they pay to clarity in the editing process, and how objective they are in assessing new materials. Unfortunately, such information often resides behind closed doors.

Any parting words of advice for our residents looking to publish their scholarly works?

JK: Kassirer's ten rules:
1. Find a good mentor
2. Choose an impactful topic
3. Never compromise your data
4. Be rigorously honest about your results
5. Don't exaggerate your work wildly
6. Learn how to write clearly
7. Find someone skilled to criticize your writing
8. Take the criticism with good humor
9. Expect rejections from journals
10. Persist
Papers and Presentations:

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

Third Year Residents:


Second Year Residents:


First Year Residents (Interns):

2. Goodson JM, Chad S. Weldy, MacDonald JW, Liu Y, Bammler TK, Chien WM, Chin MT. In utero exposure to diesel exhaust particles is associated with an altered cardiac transcriptional response to transverse aortic constriction and altered DNA methylation. The FASEB journal. official publication of the Federation of American Societies for Experimental Biology. 2017. [PMID: 28751527]

Recent Graduates:

8. Sing D, David Ouyang, Hu S. Gender Trends in Authorship of Spine-Related Academic Literature – A 38-Year
Methods, Materials, Mentors:

- Please see [http://lane.stanford.edu/classes-consult/laneclasses.html](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!

Speeches, Seminars, Sessions:


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