

“Talking Gas with the Residents”

By *Nikan H. Khatibi, M.D.*

*Resident Physician, Department of Anesthesiology,
Loma Linda University Medical Center*

Welcome to the first issue of “Talking Gas with the Residents.” I have been appointed as the resident representative to the Editorial Board, so I’ll be your moderator for this newly energized section of our *Bulletin*. My goal is to facilitate an open dialogue among the hundreds of anesthesiology residents across California. My expectations are high: to provide you with educational, humorous and beneficial information about fellowship opportunities as well as news and events from residency departments, and to generate a sense of collegiality among residents throughout this great state. I’m always open to comments and, quite frankly, I am expecting them. In the meantime, if there is anything I can do to help facilitate an agenda, please do not hesitate to let me know at NKhatibi@llu.edu.

Applauding Resident Research

One of my favorite segments of a residency application interview session is the question that the attending poses to the medical student about research. It usually goes something like this: “As you know, most residency programs require some degree of research. Are you okay with that?” Although there are the occasional research gurus that come back with an extraordinary answer describing their projects throughout medical school, most applicants would agree that the generic answer—something akin to “Although I don’t have much research experience [i.e., none], I am enthusiastic about the possibility of engaging in research projects while in residency”—probably is the most practical response. And as I move forward in my residency career, I find more and more residents are in fact following through with their initial commitments to participate in research, looking at it as an opportunity to fine-tune their clinical skills and judgments while feeding their inner desire for new knowledge. This is happening not just here in California, but with anesthesiology residents across America who are choosing to step up to the plate and develop real, meaningful research projects.

The change that has occurred over the years is in part due to the discussions that first started earlier this decade. It was 2004 when the Accreditation Council for Graduate Medical Education (ACGME) and the Resident Review Committee for Anesthesiology (RRC) made it clear regarding research in our field: “There is a significant issue with scholarly activity and publication in our specialty that

threatens its long-term health.” In response in 2006, Drs. Schwinn and Basler (then distinguished faculty members at, respectively, Duke and Vanderbilt universities) published a thought-provoking article in *Anesthesiology* titled “Anesthesiology Physician Scientists in Academic Medicine: A Wake-up Call,” which proposed options to increase the number of physicians who would wish to pursue clinical or basic science training during their residency and fellowship time. And as we approach the later part of 2011, both what the ACGME/RRC originally said and the suggestions made by Drs. Schwinn and Basler have been translated into concrete change.

Resident Research at the State and National Levels

Since May, I have been fortunate enough, thanks to a supportive department, to attend and participate in four well-organized medical conferences, including the Western Anesthesia Resident Competition (WARC), which was hosted by the University of Arizona under the chairmanship of Dr. Steven Barker; International Anesthesia Research Society (IARS) hosted in Vancouver, Canada; the CSA’s Annual Meeting in San Jose; and the AMA’s Research Symposium in Chicago.

What I encountered at these conferences was “jaw-dropping” for me. What do I mean? Well, prior to attending these meetings, I expected to find a handful of resident physicians who simply were happy to get a few days of reprieve from OR duty. I already was aware of the articles mentioned above, and I also had listened to the woes of residency program directors about the lack of resident physician involvement in research and public policy matters. But when I first stepped into that hotel in Tucson to attend the 2011 WARC, I was blown away not just by the sheer number of residents participating, but also by the caliber of research projects designed and executed. Indeed, what I previously had anticipated was far from reality. In fact, according to the reports, WARC this year reached a record-hitting 338 abstracts accepted for oral and poster presentations by residents and fellows. Even more promising was the number of attendees—including chairs and program and fellowship directors—on hand to show their support.

The story was similar at the CSA Annual Meeting, where I met my fellow resident research-award recipients (Dr. Matthew Jolley and Dr. Wendy Yan), and at the IARS, where I mingled with a vast number of residents and distinguished faculty from all over the world. The time of focusing solely on clinical skills is in the past; today’s generation of resident physicians is led by a scholarly group of academic physicians who also are concerned about research innovation and design, and, of course, clinical inquiry.



Figure 1: A group of dynamic residents at this year's WARC hosted by the University of Arizona, Tucson.

What Motivated These Residents to Do Research?

As I walked around and talked to residents and faculty alike, one question continued to lurk in the back of my mind: What was the motivation for these residents to do research? Why here and why now? I came up with these two reasons.

1. A proactive attitude about strengthening, diversifying and building our specialty as a whole.

Deciding which specialty to pursue while in medical school can be challenging. A lot of thought goes into whether or not one prefers a procedure-based specialty, problem solving versus hands-on medicine, and even the type of lifestyle one can expect. The fact is that anesthesiology does consider research to be an essential part of its future despite its offering fellowships that don't require research in addition to clinical fellow training. Indeed, although this type of training can prevent attracting top-tier physician scientists, the academic leaders in our specialty do emphasize and value research as a means to preserve and promote the field of anesthesiology.

2. Support from the department and faculty mentors.

A supportive group of expert faculty mentors plays a vital role in generating and nurturing a resident's enthusiasm and ultimate success with research. Moreover, residency programs that offer an early exposure to research find themselves in a better position to succeed with this objective.

With regards to concerns for time provided for clinical training, programs throughout California now have allotted large amounts of time—i.e., anywhere from six months (advanced positions) to eight months (categorical positions)—for the design and execution of research projects. Additionally, for those residents who have an interest in research prior to matching, a number of programs have created five-year anesthesiology physician-scientist pathways that can allow up to 50 percent research time. On the other hand, for those residents who have found a passion for research toward the later part of their residency training, roughly 10 academic anesthesiology departments throughout the U.S. offer National Institutes of Health-funded research fellowship programs—the goal of which is to provide training in scientific investigations—to anesthesiologists who wish to become independent physician scientists.

Final Thoughts

My motivation for writing this article was two-fold. For one thing, I have spent two wonderful years in an anesthesiology residency program that has nurtured and encouraged my early research participation, which I have found to be rewarding and encouraging as a resident physician. However, the second reason is that I personally would like to see our specialty drive and lead innovations in medicine, especially in regard to perioperative care, because that is one of the ways we as forward-thinking anesthesiologists can pave a pathway for tomorrow.



Figure 2: The recipients of this year's CSA Research Awards, presented to them at the Annual Meeting in San Jose. From left: Dr. Hong Liu, CSA Research Committee Chair; Dr. Wendy Yan, University of California, Davis, second place; Dr. Nikan Khatibi, Loma Linda, first place; Dr. Matthew Jolley, Stanford, third place.