Letter from the Chair

BY DR. RONALD PEARL

The cycle of the academic year begins with the arrival of a new class of outstanding residents and ends with the graduation of a finishing class of spectacular residents. (See pages 3 and 4 for more on these events.) As a chair, the academic cycle also includes annual reviews with each faculty member. Having completed over 150 reviews this year, I want to share some of my observations about the Stanford anesthesia faculty.

First, our faculty are highly diverse. We have anesthesiologists, psychologists, physiatrists, neurologists, pediatricians, and researchers on the faculty. We have faculty at the start of promising careers and faculty at the end of extraordinarily successful careers, often spanning four or more decades at Stanford.

How to Start a Pediatric Anesthetic Alone

Clinical Case: In your first week in private practice post-residency and fellowship, you’re scheduled to anesthetize a 4-year-old for a tonsillectomy. You’ll start the anesthetic without an attending or a second anesthesiologist. How do you start a pediatric anesthetic alone?

Discussion: During residency it’s standard to initiate pediatric cases with an attending at your right hand to mentor and assist you through the induction of anesthesia. The second pair of hands is critical—one of you manages the airway for the inhalation induction, and the second anesthesiologist starts the IV. In community practice you’ll have to manage all this yourself.

A significant percentage of pediatric anesthetics are performed in regional hospitals and surgery centers rather than in pediatric hospitals.

Drs. Gaba, Howard, & Fish Update Guide to Crises

BY CHRISTINE JUNGE

How can you recognize if an intraoperative “loss of pipeline oxygen” is occurring, and then what steps should you take to deal with it? If you look only to journals for practical advice drawn from a peer-reviewed study, you might not find much. That’s where Crisis Management in Anesthesiology comes in. The second edition of the book, co-authored by three Stanford anesthesiologists and one from Cooper Medical School of Rowan University, was recently published. Like the first edition, it has two parts—a catalogue of anesthesia-related events that may occur in perioperative settings and what to do about them, and longer-form writing on subjects like dynamic decision-making and how to be the crisis manager, taking charge when things get tough.

One of the authors, Stanford Anesthesiologist David Gaba said that of course the book is “evidence based, but there are a zillion things in anesthesia that have never been and probably never will be studied, but people in the field need advice about. We used evidence where available and we also relied on the experience of the contributors and authors who have seen this stuff in the field.”

The co-authors to whom Gaba refers are Kevin J. Fish, MSc, MB, ChB, FRCA, FRCPC and Steven K. Howard, MD, both also of Stanford, and Amanda Burden, MD, Director of the Simulation Program at Cooper Medical School of Rowan University, Cooper University Hospital in Camden, New Jersey. Fourteen other anesthesiologists from all over the country contributed events for the catalogue section.

The first edition of the book came about when Drs. Gaba, Fish, Howard and Frank Sarnquist were teaching two-day clinical rotations.
Letter from the (New) Editor

Welcome to the Fall 2015 issue of Gas Pipeline. Due to a changing of the editorial guards, this is the first issue in a while, so we had a bit of catching up to do in terms of listing all your publications, grants, and other accomplishments. Please let me know if I missed anything, and I’ll be sure to get it in next issue.

It’s also the first issue I’ve worked on since coming to the department in June. Putting the newsletter together has been a fun way of getting introduced to some of what goes on in the department. These last few months I’ve also been busy editing journal articles, grants, promotion bios, presentations, and some patient information pieces. It’s awe-inspiring to see what amazing work is going on here, and to contribute in the little way I can to get those things out into the world.

Along those lines, if I can be of any help with editorial projects, just give a shout. I have been doing medical editing for about 15 years now, most of that at Harvard Medical School. I have experience with both scientific and patient-facing materials.

Also get in touch if you have any ideas for future issues of the Gas Pipeline or if you have any tips for fun things to do around the area. I moved here from Boston not too long ago and am still getting settled.

Christine Junge
cjunge2@stanford.edu   650-723-3927

Fun and Festivities

The department has hosted some exciting events over the last few months, including the following. A special thanks to Monique Chao Norquist, who organized them all and took photos.

Annual research awards dinner

This year’s research awards festivities, held on May 29th at the Sheraton in Palo Alto, included a pre-dinner reception with poster presentations and a talk by Dr. Jeff Apfelbaum from the University of Chicago, who was the guest evaluator. Anyone doing research in the department was invited to submit an abstract prior to the dinner. The research team (Drs. Ronald Pearl, David Clark, Rona Giffard, Sean Mackey, David Drover, Brenda Golianu, David Yeomans, David Gaba, Frances Davies, Gregory Hammer, John Brock-Utne, Larry Chu, and Martin Angst) considered the 82 submissions for 1 of 6 prizes. Even those who didn't go home with a prize did go home knowing a bit more about what other researchers in the department are doing, which was the main goal of the evening. Winners were:

- Carl Hurt for Best Basic Science
- Andreas Eisenried for Best Clinical
- Lauren Steffel for Best Care Report
- Janak Chandrasoma for Best Educational
- Quentin Baca for Best FARM fellow
- Gregory Corder for Best T32 fellow

Tip from a Word Nerd

Do you know the difference between everyday (one word) and every day (two words)? Most people use them interchangeably, but they don’t mean the same thing. Everyday means common: “an everyday object.” Every day means each day: “It’s good to study grammar every day.” Just kidding. How about: “It’s good to eat chocolate every day.”
Congratulations, grads!
On June 20, the department celebrated the graduation of the 2015 class of residents with cocktails, dinner, and a reception on campus. The department wishes each of you every success!

Graduates (and where they are off to next), in alphabetical order: Sarah Clark (Regional Fellowship, Northwestern), James Flaherty (Regional Fellowship, Virginia Mason), Lauren Friedman (Pain Fellowship, UCSF), Chrystina Jeter (Pain Fellowship, Stanford), Jason Johns (Regional Fellowship, Stanford), Stephanie Jones (Cardiac Fellowship, U. of Washington), Stephen Kelleher (Pain Fellowship, Children's Hospital, Boston), Barrett Larson (Research and Attending, Stanford), Ken Lau (Private Practice, San Diego) James Li (Critical Care Fellowship, Stanford), Joshua Melvin (Private Practice, Sacramento), Chris Miller (Pediatric Anesthesia Fellowship, Stanford), Kristen Noon (Pain Fellowship, UCSD), Anil Panigrahi (Transfusion Fellowship, Stanford), Justin Pollock (Cardiac Fellowship, UCSD), Jennifer Potter (Regional Fellowship, U. of Virginia), Chris Press (Cardiac Fellowship, Stanford), Amit Saxena (Attending, Stanford), Jan Sliwa (Cardiac Fellowship, Brigham and Women's Hospital, Boston), Shaina Sonobe (Private Practice, Hawaii), Mary Lyn Stein (Pediatric/Anesthesiology, Stanford), Meghan Tieu (Attending, Stanford), Rachel Wang (Private Practice, Santa Cruz), Vicky Yin (Attending, Stanford) Jennifer Zocca (Pain Fellowship, Cornell).

Welcome New Residents!
On July 11, the department welcomed the new class of residents with dinner at the Rodin sculpture garden on campus. Best of luck to this new class!

The new residents (and the Medical School they graduated from) are: Tenille Bany (U. of Nevada), Francesca Betti (Washington U.), Anna Bettini (Harvard Medical School), David Creighton (Columbia U.), Emmett Culligan (U. of Illinois), Nicholas Eglitis (Oregon Health Sciences), Igor Feinstein (SUNY Stonybrook), Andrew Giustini (Dartmouth), Karen Jones (U. of Miami), Amy Kloosterboer (U. of Wisconsin), Jason Leong (Albert Einstein), Wendy (Wen) Ma (UCSF), Jai Madhok (Stanford U.), Daniel Moy (Georgetown), Sean Paschall (U. of Texas, Galveston) Felipe Perez (Stanford U.) Ashley Peterson (St. George's U.), Reid Peyton (USC), Jason Reminick (U. of Rochester), Jewel Sheehan (U. of North Carolina), Sara Smith (Medical U. of South Carolina) Sarah Stone (Chicago Medical School), Sophia Turkmani-Bazzi (Wayne State U.), Melissa Vogelsong (UCSF), Noelle Wilson (Loyola University), Jocelyn Wong (Dartmouth), Chelsea Zur (Medical College of Wisconsin) Jessica Zvara (U. of North Carolina).

The new interns (and medical school) are: Nicole Arkin (Stanford U.), Robert Arrigo (Stanford U.), Hannah Bechtold (UCLA) Tyler Ewing (UC Davis) Kaitlin Flannery (U. of Iowa), Zena Knight (Harvard Medical School), Emily Stockert (U. of Chicago), Brian Tse (UCLA).
The Department of Anesthesiology, Perioperative and Pain Medicine at Stanford University is delighted to have graduated 24 new anesthesiologists in 2015! They have joined more than 600 alumni of the residency program since the department was founded in 1960. Sixteen of the 24 graduates for 2015 will go on to fellowship training. Three graduates will join the Stanford faculty and 5 will enter community practice.

New grads, new students, new programs

Residency Update by Alex Macario, M.D., M.B.A

At the same time, the department welcomes 26 new residents into one of 4 separate training programs:

- 3-year advanced residency with non-Stanford internship (n=13 residents)
- 4-year categorical residency with Stanford internship (n=8 residents)
- Combined pediatrics/anesthesia 5 year program (n=2 residents)
- Combined medicine/anesthesia 5 year program (n=3 residents)

Within the residency program there are lots of new and exciting developments and here are a few highlights:

Medical Education Pathway within Residency

This pathway offers residents interested in pursuing a career in medical education a mentored experience where the resident learns the basics of education theory and develops and implements an educational project for medical students and/or residents. The experience is tailored to the individual's background and goals but is intended to provide residents with the knowledge, attitudes, and skills to become expert educators.

The curriculum includes a monthly Clinical Teaching Seminar Series that leads to a Certificate on Fundamentals on Medical Education. The keystroke project emphasizes scholarship with possible focus on instructional design, curriculum development, assessment, or advising/mentoring.

Two new intern rotations: the CVICU and the Acute Pain Service

The new CVICU and the Acute Pain Service rotations for the anesthesia interns will be 2 weeks each. The CVICU intern will be responsible for a few patients with ICU attending supervision, and learn to place lines and tubes as needed. The purpose of the rotation is to familiarize interns with the cardiac surgery patient, have them understand cardiovascular physiology, and learn basic ultrasound and TEE as relevant to the CVICU patient. The intern on the acute pain service will learn pain pharmacology and nerve catheter and epidural management.

2 residents win American Society of Anesthesiologists Global Humanitarian Outreach International Anesthesia Scholarship

Drs. Anna Swenson Schalkwyk and Christina Stachur will participate in a medical trip to Ethiopia as part of their resident education. The main clinical site will be Cure Ethiopia, a teaching hospital.
in Addis Ababa run by the US NGO Cure International, which is affiliated with Addis Ababa University.

CA-2 Patient Safety and Quality Improvement Projects
A new program started this year was to have the CA2 class split into four groups and work on the following projects:

- Intraoperative medication safety: Exploring the use of compounded, pre-filled syringes to maximize cost savings and minimize drug waste. Residents have a high level of concern for excessive drug waste. Further analysis is pending a planned trial in collaboration with Stanford OR pharmacy of pre-filled syringes of selected emergency drugs to compare cost savings and drug waste.

- Development of a Standardized Pre-anesthesia Pregnancy Screening Protocol. Some female patients of childbearing age are not receiving pregnancy tests prior to surgery, without a documented exemption. This task force will work to develop a standardized approach to pregnancy testing.

- A Quality Improvement Project to Improve the Proportion of Appropriate Patients Offered Peripheral Nerve Blocks for Total Knee or Shoulder Replacement Surgery. The group has learned that it is important to thoroughly characterize the problem to be addressed, preferably with the relevant data to be improved, before beginning to brainstorm solutions.

- Prevention of Perioperative Hypothermia in Patients Undergoing Total Hip Arthroplasty. Interventions are being considered to manage the finding that patients undergoing total hip arthroplasty are more frequently hypothermic upon arrival to the PACU, as compared to other surgical populations.

The groups used the SMART checklist (Specific, Measurable, Attainable, Realistic, Timely) in choosing projects. These projects, along with other experiences such as the new perioperative medicine rotation at the VA Hospital, will expose the housestaff to many aspects of the perioperative surgical home.

Daily learning online mobile curriculum wins national award
An education study out of the Stanford Anesthesia Informatics and Media Lab titled "STARTprep: A 12 month multi-institutional episodic daily learning online mobile curriculum designed to prepare anesthesia residents for competency in the anesthesia basic sciences" won the best of category abstract in Economics, Education and Policy out of 750 abstracts submitted to the 2015 International Anesthesia Research Society conference in Honolulu, Hawaii. Some of the findings include that 81% of those who use STARTprep for more than 3 months say it is more engaging than traditional study methods.

Stanford Anesthesia Senior Resident Scholar for 2015-2016
This is a resident leadership position in the Department with the main goal to enhance the educational experience for residents and medical students. The appointment is for 12 months. The residency elects one Resident Teaching Scholar each academic year. For 2014-15, Chris Miller, MD, served in this important role, and for 2015-16, Dr. Louise Wen was elected.
Welcome to the World!

Quite a few babies came into our Stanford family these last few months. Here’s a peak at some of the cuties, with some words from their proud parents:

**Jordan Lindsay Schwab**

Jordan Lindsay Schwab was born July 1 around 00:16 at a whopping 8lbs 7oz (my wife is only 5'1" so that is a hefty baby for her). We had a fantastic experience! Everyone from the nursing staff, to the awesome epidural placers, to the food services (my wife’s favorite part). It was exceptional care! Thanks for all the love and support from the department and allowing me to take the time off for us to adjust.

Gratefully,
Austin Schwab

**Elise Kathryn Bergeron**

At 8:17 am on June 25th, 2015 Elise Kathryn Bergeron arrived! She was 6 lb. 1 oz, 19.5 inches. We are all doing well at home and spending the summer getting to know each other. Thank you to all who have provided abundant support during my pregnancy and recovery! Also a special thank you to the dynamic Rachel and Rachel OB anesthesia team (Wang and Outterson), who provided an efficient, effective and timely PIV and CSE!

I couldn’t have done it without you.

Take care,
Melanie, Bill and Elise

**Averee Lynn Cazares**

Karlee and Luis would like to introduce baby Averee Lynn Cazares. Averee was born on June 24th at 6:42pm weighing 8lbs 8oz, and 19.5 long. Thanks to Dr. Riley and Dr. Ann Ng for the awesome epidural and all the help in L&D, mom-my and baby are home resting and doing great. Karlee wanted to thank everyone in the department for their support.

**Abigail Elizabeth Giustini**

Abigail Elizabeth Giustini was born at 2:06 AM at Packard on 7/19/15, coming in at 7 lbs, 7 oz and 52 cm long. Mom Melissa and baby are both doing very well (and mom is now a very big believer in the magical power of epidurals)!

Best,
Andrew

MORE BABIES, NEXT PAGE
Welcome to the World! (cont.)

**Anthony Jorge Luis Davila**
Jonathan, Alex and I would like to introduce Mr. Anthony Jorge Luis Davila. He was born on May 27th with the amazing help of Natalya Hasan. He weighed in at 7 lb 11oz. After a slight hick-up that required some extra care, everyone is home and doing great. Big brother Alex is adjusting well to his important new role. I would like to sincerely thank everyone in the department for their great support.

Thanks,
Tanya Travkina

**Eli and Sahana Newmark**
In September, Dr. Jordan Newmark and his wife Rachna welcomed twins, Eli and Sahana. Mother, father, and babies are all doing well.

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**Events: Create Mix and Mingle**
This year, instead of the Art and Anesthesia Soiree, the department hosted a paint-night style event. On April 19, Anesthesia staff, faculty, and students—and their families—were guided by art teachers in painting either the Hoover Tower or the Stanford Tree. Who knew there were so many talented artists among us?

Top Left: Valerie McDonald of the AIM Lab showing off her artistic skills; Bottom Left: One of the evening’s cutest artists; Bottom Right: A group shot.
ventilation open. Young children scheduled for tonsillectomy sometimes carry the diagnosis of obstructive sleep apnea (OSA) based on a clinical history of snoring, noisy breathing, or daytime somnolence. It’s uncommon for these patients to have a formal sleep study to document OSA. OSA children may have more challenging airways and have an increased incidence of partial airway obstruction during inhalation induction.

In residency, I was taught to supplement the potent volatile anesthetic (halothane in decade past) with 50%-70% nitrous oxide. However, because the blood:gas partition coefficient of sevoflurane is 0.65, comparable to nitrous oxide’s 0.45, anesthetic induction with sevoflurane alone is nearly as fast as sevoflurane-nitrous oxide. The addition of nitrous oxide to the induction mix is unnecessary, and using an FIO₂ of 1.0 affords an extra cushion of oxygen reservoir if the airway is difficult or if the airway is lost.

How will you start the IV after induction? There are several options:
1. You can ask the surgeon or a nurse to start the IV. In my experience, neither surgeons nor O.R. nurses are as skilled in starting pediatric IVs as an anesthesiologist is, so I don’t recommend this plan.
2. You can ask the surgeon or the O.R. nurse to hold the mask and manage the airway while you start the IV. This option is safe if the airway is easy and you trust the airway skills of the other individual.
3. You can stand at your normal anesthesia position, hold the mask over the patient’s airway with your left hand, and ask the nurse to bend the patient’s left arm back toward you. The nurse tourniquets the patient’s arm at the wrist, and with your right hand you perform a one-handed IV start in the back of the patient’s left hand.
4. The option I feel most comfortable with is to fit mask straps behind the patient’s head, and secure the mask in place with the four straps after the patient is fully anesthetized (when their eyes have returned to a conjugate gaze). While the straps hold the mask in place, you listen to the patient’s breathing via the pretra-
cheal stethoscope to assure yourself that the airway is patent. Then move to the left-hand side of the table and start the IV in the child’s left arm. The typical length of time away from the airway should be less than one minute. If the child has no obvious veins, fit the automated blood pressure cuff (in stat mode) on top of the tourniquet on the upper arm. The BP cuff is a superior tourniquet and the inflated cuff makes it easier to find a suitable vein.

Once the IV is in place, proceed with intubating the patient. In community practice, the surgical duration of tonsillectomies can be very short, so the choice of muscle relaxant is important. Succinylcholine carries a black box warning for non-emergent use in children, and should not be used for elective intubation. You can:

1. Administer rocuronium and later reverse the paralysis with neostigmine plus atropine.
2. administer a dose of propofol, e.g. 2 mg/kg, which blunts airway reflexes enough to allow excellent intubating conditions in most patients, or
3. you can perform two laryngoscopies, the first to inject 1 ml of 4% lidocaine from a laryngotraheal anesthesia (LTA) kit, and another 30 seconds later to place the endotracheal tube in the now-anesthetized trachea.

Some anesthesiologist/surgeon teams prefer a laryngeal mask airway (LMA) rather than an endotracheal tube. LMA use for tonsillectomy is not routine in our practice, but one advantage is that an LMA does not require paralysis for insertion.

What if you’re working alone and your patient develops acute oxygen desaturation with airway obstruction and/or laryngospasm during inhalation induction before any IV has been placed? What do you do?

If you anesthetize enough children you will have this experience, and it can be frightening. The immediate management is to inject succinylcholine 4 mg/kg plus atropine 0.02 mg/kg intramuscularly, usually into the deltoid. Then you do your best to improve mask ventilation using an oral airway or LMA if necessary. The oxygen saturation may dip below 90% for a short period of time while you wait for the onset of the intramuscular paralysis. Once muscle relaxation is achieved, ventilation should be successful and the oxygen saturation will climb to a safe level. The trachea can then be intubated, and an IV can be started following the intubation.

If such a desaturation occurs, should you cancel the case? It depends. I’d recommend cancelling the case if:

1. The duration of the oxygen saturation was so prolonged that you are worried about hypoxic brain damage, or
2. Gastric contents are present in the airway and you are concerned with possible pulmonary aspiration.

Working pediatric cases alone is rewarding as well as stressful. Nothing in my practice brings me as much joy as walking into the waiting room following a pediatric case to inform parents that their child is awake and safe. The parents are relieved, and watching the mother-child reunion minutes later in the Post Anesthesia Care Unit is a heart-warming experience.

Not all anesthesiologists will choose to do pediatric cases during their post-residency career. If you will be anesthetizing children alone in community practice, it’s a good idea toward the end of your anesthesia residency or fellowship to ask your pediatric anesthesia attending to keep their hands off during induction, so you can hone your skills managing both the airway and IV. That way you’ll be ready and capable of inducing a child alone after you leave training.

Dr. Novak’s catalogue of past columns is available at theanesthesiaconsultant.com. His novel, The Doctor and Mr. Dylan, is available on Amazon.com.
Stanford. We have faculty who manage patients across multiple subspecialties, and faculty who focus their practice in a single sub-specialty. We have faculty who focus their efforts on only one of our departmental missions (clinical care, education, research, and administration), and faculty who are true quadruple threats and succeed in all four. Every faculty member has a unique story regarding the often unpredictable events that helped shape his or her career, and the stories are always fascinating. Some faculty planned on a medical career from an early age, while other faculty turned to medicine only after already succeeding in other areas. At the time they entered medicine, few of the faculty anticipated that they would choose anesthesiology for their careers.

Although in many respects the faculty are highly diverse, there are also some constants. Without exception, all the faculty are strongly committed to improving patient care, often sacrificing time and financial opportunities. Overall, the faculty are outstanding clinicians, and the average evaluation by the residents regarding patient care by the faculty is 5.6 out of 6. In general, the faculty retain the optimistic and altruistic concepts expressed in their personal statements when they applied to medical school. Throughout the department, faculty are committed to training the next generation of clinicians, educators, and researchers, and the evaluations of faculty by residents, fellows, students, and other trainees are consistently outstanding. Many faculty chose the field of anesthesiology based on support from an individual mentor, and our faculty now assume the mentor role with our medical students, residents, fellows, and other trainees.

Our faculty are intellectually curious, driven to increase their understanding of the world and develop new and better techniques. Depending upon the individual faculty, this can be new approaches to clinical care, to education, or to solving research problems. Many of the faculty are interested in developing new products, and our multiple fellowships and the new Stanford Anesthesia Innovation Lab (SAIL) program led by Barrett Larson fulfill an important need. The faculty are also interested in the world outside of medicine, and many are accomplished (or at least active) in arts, humanities, and athletics.

During residency applicant interview season, I am often asked what we look for when choosing residents, and my answer is that we want residents who will become leaders. Leadership is defined broadly and can be accomplished in education, innovative clinical care, research, organized medicine, or in the local community or through global health. Our faculty have clearly fulfilled the goal of becoming leaders.

Finally, most faculty are satisfied with their academic careers at Stanford and would choose the same path again. At the same time, they are also concerned about the future of healthcare and how Stanford and the anesthesiology department will adopt and evolve over time. It is encouraging that many of our faculty plan to lead these changes.

Although our department has more than tripled in size during my 16 years as chair, it is still small enough that we remain a departmental family with close friendships among the faculty, residents, and administrative staff. These interactions can be seen at our departmental parties and football tailgates, in the breakfast break room and outside the hospital. Although we frequently focus on our patients during our time at work, it is the personal relationships that make our lives meaningful and valuable. The annual review process is an opportunity for me to recognize how successful our faculty are in their professional lives and to appreciate how fortunate we are as a department to have such talented and wonderful people.

I look forward to seeing everyone at our annual alumni reception at the ASA (October 24-28, San Diego).

Ronald Pearl, M.D., Ph.D., is the Chair of the Anesthesiology Department, and a Professor of Anesthesiology, Perioperative and Pain Medicine at Stanford School of Medicine.
New edition of *Crisis Management* published (cont. from p. 1)

courses on crises in anesthesia, and since there was no book out on the subject, they had to put together a course binder for each one. “We had to photocopy articles and print out our catalogue of events at Kinkos, collate them, put them into binders …. We got tired of making our own book each time,” Dr. Gaba said. Apparently the world outside of their classroom was ready for the material—according to Drs. Gaba and Howard, the first edition sold about 12,000 copies, a high number for an anesthesiology text. “Considering there are 30-40,000 anesthesiologists out there, and a roughly equivalent number of nurse anesthetists, that means that about 15% of all people in the business are using this text,” Dr. Gaba said. Perhaps most remarkably, it continued to sell well for 20 years—which is about 10 times longer than books of this nature usually last.

One thing that happens when you wait so long before writing the second edition of a book is that it’s almost like writing a whole new book. Unlike your typical “new edition” of a college text, where maybe a handful of updates are made throughout the entire book, if you compare the first and second editions of Crisis Management, you’ll find that a whole lot more has changed than has stayed the same. First of all, the two original long-form chapters were completely rewritten, and two new chapters were added, one on teaching principles of crisis management and one on debriefing after clinical scenarios. These were added by request from readers. The events in the catalogue were also completely redone. Dr. Howard explained, “These were all new contributors, who all have a new take on things.” He and Dr. Fish coordinated the 14 outside collaborators who worked on the catalogue of events.

Drs. Howard and Gaba converse like people who have been working together a long time—not quite filling in each other’s sentences, but almost. This makes sense once you learn that Dr. Gaba was originally Dr. Howard’s mentor. (Dr. Fish was a mentor to both of them.) These close relationships helped keep the project on a very smooth course—once they got started, it took only a year to complete a draft. They didn’t miss a single deadline either, despite the many other commitments of all the authors, and the fact that Dr. Howard broke his leg in the middle of it all. Dr. Howard actually credits his immobility with helping the project along—“I couldn’t run away from it,” he joked. Plus, Dr. Fish was kind enough to go to Dr. Howard’s house and work from there. And, of course, they all had far better Internet access and more powerful word processors than they had when they were working on the first edition back in 1993-94. Without email capable of handling large attachments, Dr. Howard said, they wouldn’t have been able to collaborate as easily with their co-author Dr. Burden on the East Coast, or the many other contributors throughout the country.

Though neither Dr. Howard nor Dr. Gaba wanted to think about working on another edition quite yet, they both assumed the world wouldn’t have to wait another 20 years for it. For his part, Dr. Gaba said two editions might be his limit: he might be retired by the time a call came for the third edition. Apparently Dr. Fish had expressed similar sentiments. “You may need to find some younger authors,” Dr. Gaba joked to his mentee.

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**In Brief: SHANAHQ.COM WINS AWARDS**

- **Michael Chen, Vladimir Nekhendzy, and Sam Mireles** primarily manage the Society of Head and Neck Anesthesia website (shanahq.com), which recently received two prestigious national eHealthcare Leadership Awards for best health content (gold) and best interactive website (silver) for Physician/Clinician-Focused sites. *Congratulations all!*
Recent publications by Anesthesia Faculty


Bernaba M, Johnson KA, Kong JT, **Mackey S**. Conditioned pain modulation is minimally influenced by cognitive evaluation or imagery of the conditioning stimulus. *J Pain Res*. 2014 Nov 26;7:689-97.


Chung PC, Boehrer A, Stephan A, Matifas A, **Scherrer G**, Darcq E, Befort K, Kieffer BL. Delta opioid receptors expressed in forebrain GABAergic neurons are responsible for SNC80-induced CONT., NEXT PAGE
seizures. Behav Brain Res. 2015 Feb 1;278:429-34.


Grants

Congratulations to the following recent grant recipients:

Barrett Larson received the Spectrum Medtech Panel grant for his project concerning a monitoring system to prevent unnecessary blood product wastage.

Alex Macario and Ana Crawford received funding from the Office of International Affairs for the Zimbabwe teaching program. The proposal was selected as one of the top 5 best applications.

Erica Stary’s proposal to start a comprehensive multidisciplinary clinic for aging women veterans with chronic musculoskeletal pain was funded by the Office of Women’s Health Services.

Sara Goldhaber-Fiebert received a FAER REG grant for a project on the adoption of emergency manuals.

Vivianne Tawfik received a FAER MRTG grant for monitoring and modulating microglial cell activation in pain.

Sean Mackey received a renewal of his K24 grant, which provides 50% salary support for mentoring.

Lisa Wise-Fabrowksi received a grant from Gerber for a clinical study of anesthetic neurotoxicity in pediatric cardiac surgery.

Greg Scherrer received the 2015 INRC Young Investigator Award.

Beth Darnall is the Stanford PI of a multicenter R01 entitled “Maternal Chronic Pain: Risk for Pain and Poor Outcomes in Children”.

Anya Griffin received a grant from The Medicine and the Muse for her proposal, “Capturing Pain: Photographic Storytelling of Youth in Chronic Pain,” with co-investigators Ashley Dunn & Amanda Feinstein.

Recent Publications (cont. from previous page)


Recent publications (cont. from previous page)


Recent publications (cont. from previous page)


Steadman RH, Burden AR, Huang YM, Gaba DM, Cooper JB. Practice improvements based on participation in simulation for the maintenance of certification in anesthesia program. Anesthesiology. 2015 May;122(5):1154-69.


CONT., NEXT PAGE
Recent publications (cont. from previous page)


Comparison of catheter tip migration using flexible and stimulating catheters inserted into the adductor canal in a cadaver model.


Winkelman M, Ng J, **Shafer A**. Charting Phelan’s 'To Suffer a Sea Change'. *Med Humanit.* 2015 Jul 15.

**Residency Update**  
(Cont. from page 5)

**“Feedback Thursday”**

In 2013, anesthesia resident focus groups were assembled to discuss all aspects of feedback. The resident groups indicated that feedback needs to be:

• Timely (soon after observed behavior)
• Regular (daily or weekly)
• Concrete (specific based on first-hand observation in the moment)
• Tailored to the trainee’s developmental level
• Reflective of the learning goals, with clear follow up

Since then, several workshops have been organized to teach faculty feedback methods. “Feedback Thursday” is a way of encouraging residents to ask for feedback with their attendings. The residency office sends reminder emails and text page each Thursday about engaging in feedback and completing a web-based form.

**TEE Training**

The residency aims to have graduating residents have the knowledge and skills to pass the Basic exam [http://www.echoboards.org/content/basic-pte%2AE](http://www.echoboards.org/content/basic-pte%2AE). The individual resident can decide if they want to sit for the basic exam currently offered every two years; the next one is in 2016. Senior residents Drs. Sliwa and Potter, working under the mentorship of the cardiac anesthesia faculty, have develop a web-based TEE curriculum that can be accessed by residents as needed. The curriculum includes a monthly Clinical Teaching Seminar Series that leads to a Certificate on Fundamentals on Medical Education. The keynote project emphasizes scholarship with possible focus on instructional design, curriculum development, assessment, or advising/mentoring.

_Alex Macario, M.D., M.B.A, is Vice-Chair for Education and Program Director for the Anesthesia Residency._

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**Recent publications**  
(Cont. from previous page)


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**Save the Date for...**

**the Holiday Party!**

With wreaths and bows already decorating the aisles of some stores, it’s time to mark your calendar for the department holiday party: **December 12, 2015**. More info to come!