Imagine the overwhelming feelings of grief, loss, frustration, depression, and hopelessness that parents feel when the most precious thing in their lives, their child, suffers from pain that is chronic, or pain that is unrelenting, or pain that keeps coming back over and over again and doctors do not know what to do. Unfortunately, we cannot always be successful in eliminating chronic pain, but we can be and are always successful in minimizing the pain, in teaching children and parents how to live and function with some pain, and most importantly of all, in eliminating suffering, for it is the suffering that makes pain unbearable, not the pain itself.

In 1984, while Krane was a pediatric intensivist in at the Seattle Children’s Hospital and the University of Washington, he noticed that children’s pain was poorly managed. He was fortunate enough to work with a pioneer in pain management, John Bonica, and others (Terry Murphy, Don Tyler, Chuck Berde, Myron Yaster, and David Cohen) to develop a new field—children’s pain management.

Continued on page 2
Pediatric Pain Clinic Offers Hope, Continued

In 1987, Dr. Krane and Don Tyler organized and held the First International Symposium on Children’s Pain, attended by specialists from many disciplines. The like-minded clinicians formed friendships and collaborations that persist to this day. In 1994, Dr. Krane joined Stanford’s Department of Anesthesia, recruited to further develop its pediatric anesthesia and pain management, which had been begun earlier by Dr. Yuan-Chi Lin and Ms. Sandy Sentivany-Collins.

The Pediatric Pain Team

Over the years, Dr. Krane and his colleagues have developed a strong, interdisciplinary team whose every member helps children in chronic pain and their families gain relief, control, and hope.

- **Director** Elliot Krane, MD, Professor of Anesthesia and Pediatrics
- **Pain Physician and Pediatrician** Julie Good, MD, DABMA, Clinical Assistant Professor, Pediatric Pain and Symptom Management and Palliative Care. Trained in acupuncture, she helps children with painful, fatal diseases, such as certain cancers and cystic fibrosis.
- **Pain Physician and Anesthesiologist** Brenda Golianu, MD, Assistant Professor, Stanford Center for Integrative Medicine, specializes in pediatric anesthesia and acupuncture/acupressure—a burgeoning area.
- **Child Psychologist** Rashmi Bhandari, PhD, specializes in family counseling; cognitive-behavioral therapy; and training in relaxation, stress management, biofeedback, guided imagery, and self-hypnosis.
- **Clinical Nurse Specialist** Sandy Sentivany-Collins, RN, MS, CNS, specializes in inpatient pain management and palliative and end-of-life care. Her golden retriever, Carly, lights up patients’ lives.

2 You will hear more about team members in the February, 2007 issue of The Gas Pipeline.

- **Nurse Practitioner** Chris Almgren, RN, MSN, PNP, specializes in outpatient treatment for chronic and recurrent pain problems and inpatient pain management.
- **Physical Therapists.** Richard Gee, MSPT, and Karen Kaufman, PT, evaluate a child’s mobility and function. They teach the child and parents ways the child can become more independent—through exercise, biofeedback, and relaxation.
- **Fellow** Artee Gandhi, MD specializes in advanced pediatric pain management and regional anesthesia.
- **Administrator** Susan Lim handles appointments, registration, and logistics. She frequently talks to patients, families, and insurance companies and receives the heartfelt letters, children’s drawings, and cookies that pour into Dr. Krane’s office.

Interview with Elliot Krane, MD

I interviewed Dr. Krane and read his informative, compassionate book, Relieve Your Child’s Pain. Here’s what I learned from him.

How does the patient get referred?

**EK:** Most patients come from the local area—from Marin to Monterey—although some come from outside of California. They may be referred by their pediatricians, but they often refer themselves. Children’s pain centers exist elsewhere in the US, but the service we provide is unique to California (UCLA’s service is focused on cognitive behavioral therapy alone).

What kinds of problems bring these patients to you?

**EK:** Our patients have recurring, chronic pain and sometimes other symptoms—nausea, dizziness, etc. They present with headaches; abdominal pain; complex regional pain syndrome; fibromyalgia; myofacial pain; back pain; and pain related to chronic illnesses, such as cancer and rheumatoid arthritis. They also have psychological symptoms and disrupted family, school, and peer lives.

Continued on page 14

3 Op cit.
First-time novelist, Audrey Shafer, MD, has just had published her striking, first, children’s novel, *The Mailbox*, a suspenseful story woven around a secret correspondence, carried out in a rural mailbox. The story reveals the deep connections that sustain us in moments of profound loss and loneliness and urge us to heal. Shafer develops key relationships between twelve-year-old Gabe and his Uncle Vernon, a crusty Vietnam vet; and Gabe and the mysterious correspondent. These relationships, as well as ones with a friend and a teacher, convey pathos, mourning, love, sacrifice, and resolution of grief.

Chapter 1 captivated the Random House editor who accepted Dr. Shafer’s book, and it captivated me, too. In the opening paragraphs, she draws the reader into Uncle Vernon’s and orphan-nephew Gabe’s world:

-Vernon Culligan was good as dead to the town of Drayford, Virginia for so long that when he actually died, not many folks noticed. For decades, his bloodshot eyes, permanent three-day stubble, rifle held over his head, and snarl meaner than a coon dog’s had naturally taught everyone to keep a good distance from his property line. The postal delivery truck did venture all the way to the teetering mailbox, and mail was regularly delivered through its yawning trap into the dark, corrugated steel tunnel. Outgoing letters, mostly bill payments, were collected, the addresses written in shaky black ink, as if little spider legs had had grouped themselves into crooked letters. Such was the old man’s communication with the world.

Twelve-year-old Gable Culligan Pace lived with his uncle in Vernon’s simple home cradled within a valley west of Virginia’s Blue Ridge, north of Roanoke County. Gabe had arrived in early spring, two and a half years before. Woodland rhododendrons had splashed their purple heads against spikes of sage green as Gabe whizzed by in the backseat of a social worker’s Ford Escort.

Over the space and time and in the shadow of the mountains, Gabe came to appreciate, if not understand, many of Uncle Vernon’s habits. For instance, Vernon always kept a fan blowing, no matter the season. He preferred the fan to the cabinet full of smoker’s lung medicines. So when Gabe arrived home from school and saw his uncle’s electric fan lying on the wooden floor in the study, like a turtle that couldn’t right itself, Gabe dropped his backpack at the door. He held his breath and crossed the narrow hall. Vernon’s chair lay toppled to one side and Vernon himself lay motionless on the floor, flat on his back.

Gabe had never really touched his uncle, though sometimes he had accidentally brushed Vernon’s rough hand while passing the margarine tub or clearing the table. Gabe stood by his uncle’s work boots and softly called his name. Vernon, a veteran, had had his left leg amputated below the knee during his final tour in Vietnam, thirty-five years before. But with the latest prosthesis, Vernon walked with barely a limp. ‘The thing’s a chore to get on. Can’t maul en, can’t hurry it up no more, but can’t stub my toe, neither!’ Gabe saw the fake foot wasn’t angled quite right to the rest of his uncle’s body. That twist gave Gabe a little courage. He knelt and touched the plasticized ankle, then moved up, methodically pushing one finger against his uncle’s pant leg. He stopped at the thigh, rolled back on his heels, and looked at his uncle’s face. Gently be placed a finger on his uncle’s cheek.

The skin was cold….

Continued on page 4
INTERVIEW WITH AUDREY SHAFER, CONTINUED

As the book-jacket text says:

...he's [Gabe's] too stunned to react—so he does nothing. But the next day, he discovers a strange note in his mailbox:

I have a secret. Do not be afraid.

And his uncle's body is gone.

This begins a unique exchange between Gabe and a secret correspondent. Flashbacks reveal how Gabe’s and Vernon’s relationship changed their lives and how war still affects soldiers, even decades after the fighting stops. Eventually Vernon’s death is discovered, and Gabe and the mystery writer must learn to move forward.

I interviewed Audrey Shafer, to learn more about her writing career and how The Mailbox came to be.

How did you dream up the idea for The Mailbox?

AS: I had written a long, cumbersome novel in 2002...I had an ending in mind, and I wrote “to the ending.” I decided the next time...I would have a beginning in mind.

During the build-up to the Iraq war in 2002–3, I became disturbed, as did most of the country. My VA patients (VAPAHCS) needed to speak on their way to the OR. Many described their own wartime experiences; others commented on the youth and innocence of those being deployed—the veterans were deeply concerned about young people being put “in harm’s way.” I was moved by this witnessing and by hearing their deep-felt empathy. Even those without a diagnosis of post-traumatic stress disorder (PTSD) still wore their war experiences very close under the skin.

One day, in the midst of this emotion, I imagined the beginning scene—a young boy coming home from school and finding his uncle, a Vietnam veteran, dead on the floor. Because my daughter was in sixth grade at the time, I made the protagonist a sixth grader.

Who stimulated your interest in writing poetry and fiction?

AS: I began writing poetry as a teenager, after my father died. After high school I didn’t write much, until I took a poetry workshop with Denise Levertov at Stanford when I was an “attendafellow”—an in-between year after fellowship and before becoming a faculty member. Levertov was an inspiration. She taught me that writing is a way to see the world. Much later I decided to try writing fiction because I enjoy reading it. In 2001 I determined to write a short story “before I die.”

When did you decide to write children’s fiction, in particular?

AS: I didn’t decide to write for children. As I composed The Mailbox, it dawned on me that its audience was younger readers. My editor, Stephanie Lane, at Delacorte, Random House, determined that the story was for middle-grade readers (ages 9 and up), because the protagonist is 12 years old. I changed the language and deleted much of the adult characters’ back stories.

When do you write? How long did it take to finish The Mailbox?

AS: For poetry I need to settle in and have my own space. I perform a “free write” to access and write down my ideas. Then I edit the poem, which is less intense than writing the poem, whenever I can squeeze it in. I do much of the editing in my head, mulling over particular words. Fiction is a completely different experience. Because it is character-driven, the people in the story seem to take over and do the writing. When writing The Mailbox, I frequently stayed up late to write on nights that were not preclinical. Writing The Mailbox took six months, but the editing took much longer.

When I was writing the story, I read what I had written each night to my daughter, Rebecca. She was 11 years old and has a wonderful sense of words. Because she was the first editor of the book, I dedicated it to her.

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As the new Program Director (July 1, 2006) of Stanford's Anesthesia Residency Program, I'm delighted to inaugurate a new column, dedicated to discussing the program and the outstanding people who participate in it.

Last summer, our residency program received a 5-year ACGME accreditation (the longest term possible). This terrific news reflects the hard work of many people committed to making this the best residency program.

What have I learned so far?

Prior to becoming the Residency Program Director, as a regular faculty member, I had little idea of either the scope or the vast effort needed to support anesthesia resident education at Stanford. Nor was I fully aware of the challenges and opportunities before us.

Scope—For example, we have two weekly lecture series (one for junior and one for senior residents); one-day workshops on a variety of topics including difficult airway management, regional anesthesia and career planning; mock orals; Grand Rounds; teaching in the OR; online evaluations of residents and faculty via MedHub; a weekend board review course; a journal club; the simulators; and the Tahoe Retreat. It’s a huge challenge to stay on top!

However, we shouldn’t be surprised at this high commitment, because education is one of the department’s three missions: research, patient care, and education. We can usually measure the outcomes of properly executed research by publication and funding. We can usually measure care of complex patients by tangible, positive outcomes in the recovery room and patient discharge from the hospital. But, sometimes we assume that education of the next generation of anesthesiologists is being carried out optimally well in the department. How do we know we can’t do better?

Effort—To fulfill the department’s education mission requires just as much effort as does fulfilling our research and patient care missions. In fact, if we add to the curriculum (for example a Problem-Based Learning Discussion series), we may need to subtract something, because the menu (and a resident’s time) is fully booked. An important way to focus our education mission is to align our efforts with The ACGME Outcomes Project.

The ACGME Outcomes Project

In the past our residency programs focused on medical knowledge and patient-care skills, whereas patients and their families often focused on communication and professionalism. National reports about the frequency of hospital medical errors and the difficulty patients said they had trying to communicate with their physicians are reasons given for the conception of the ACGME4 Outcomes Project.

This project defined six core competencies as foundational for physician training:

- Patient Care,
- Medical knowledge,
- Practice-based learning and improvement,
- Interpersonal and communication skills,
- Professionalism, and
- Systems-based practice.

Continued on page 6

4 The Accreditation Council for Graduate Medical Education (ACGME) sets standards for and evaluates 8,000 residency programs within the US.
ACGME now requires residency programs, including ours, to demonstrate how they educate house staff in these core competencies and how they evaluate the house staff’s performance.

Ideally, today’s residents and tomorrow’s anesthesiologists attain and maintain these competencies. They will do all of the following: (1) make critical analysis of medical literature a natural part of their routine, (2) practice evidence-based medicine at the highest ethical standard without conflicts of interest, (3) effectively communicate to patients, nurses, staff, and colleagues, (4) continuously assess the quality of care provided, and (5) understand today’s complex health care systems so they can assure their patients have access to the best care.

The Future

Training programs like ours at Stanford will have to show that there is more of an effort to truly treat residency as an educational system as opposed to a more traditional apprenticeship model, where you showed up to the OR, watched and then did patient care. Then, when you walked out the door 3 yrs later, there was the expectation you had learned enough to perform anesthesia competently on your own. The apprentice-based model was developed when most doctors were private practitioners and most care delivery was by individual physicians in an office. Today, most care is delivered by teams of providers in complex healthcare systems. We are being asked to adjust to this new reality. The program that does this best will attract the best and brightest applicants!

Alex Macario, MD, MBA
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EDITOR’S NOTE

New email address? Would you like to submit an article or news item for consideration? Contact rohrs@stanford.edu

Chairman’s Update

by Ron Pearl, MD, PhD

Successes and Changes—By all accounts, the recently completed academic year was extraordinarily successful. We graduated the largest and arguably the best class ever. Our three current resident classes are exceptional, and the class we matched for next year will continue that trend. Clinically, we have had continuing growth in all areas, with this past year setting records for clinical activity (and efficiency). Academically, we have continued to expand our faculty with superb anesthesiologists, and during the past year our faculty was has broken records in numbers of grants awarded and numbers of publications published. Financially, a record profit replaced the departmental deficits from six years ago. Although it is tempting to relax amidst such success, we need to focus our attention on how coming changes may affect the department.

New OR Facilities—One obvious change is our new operating room facilities. In January 2007 we will open the new Ambulatory Surgery Center with 12 large, newly equipped operating rooms and 3 interventional suites. We will move from an ASC built almost half a century ago to the most modern one in the country. One year later, in January 2008, we will open the new pediatric operating rooms in Packard, a move which will complete the transformation of our pediatric anesthesia division into one of the leading such groups in the world. Then, in January 2009, we

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CHAIRMAN’S UPDATE, CONTINUED

will open the new ambulatory center in Redwood City with 8 operating rooms and a new pain management center. Its focus on ambulatory orthopedics will permit us to continue expanding our regional anesthesia programs. Thus, within the next 30 months, we will move into 26 new, state-of-the-art, operating rooms, and we will expand by approximately 16 anesthetizing locations. In addition, both Stanford and Packard Hospitals are developing expansion plans for additional towers and operating rooms, so that all our current operating rooms will be replaced within the next 10 years.

Epic electronic medical record—Concurrently, in the spring of 2008, we will replace our current Stanford Hospital information system with the Epic electronic medical record (EMR), a paperless system designed to transform the practice of medicine, particularly in outpatient settings, such as our pain management clinic.

Epic will also affect the inpatient side, as the preoperative, postoperative, and critical care notes will all become electronic. In addition, we will install an electronic anesthesia record.

With all patient information (medical and anesthesia) accessible from an Internet-connected computer located anywhere in the world, we will have unprecedented opportunities to conduct clinical-outcomes research and expand our academic programs in new areas.

As a department, our challenge is to devise approaches that leverage these significant changes.

American Society for Anesthesia (ASA) Annual Meeting—The annual ASA meeting in October was again a successful one for the department, with our faculty extensively represented in refresher course lectures, panels, workshops, and abstracts. In addition, our faculty members continue their leadership in all of the related anesthesia societies and subspecialties.

Jerry Reves in this year’s Rovenstine Lecture focused on why anesthesiology as a specialty has fallen behind other specialties in research activity.

He noted that the limited numbers of researchers is a culprit, not the quality of researchers presently at work. Jerry emphasized that we need to choose residents interested in pursuing research and develop residency training to support their success in developing a research career. We will continue to consider these issues throughout the next several years.

Celebrating Success—We celebrate both the research accomplishments of our anesthesia faculty and those of the Medical School at large. In the Anesthesia Department, Rona Giffard’s RO-1 renewal received a percentile score of 0.5%. In the Medical School, two Nobel Prizes were awarded this year, one in Physiology or Medicine to Andrew Fire, PhD for his work on how double-stranded RNA switches off genes, and one to Roger Kornberg in Chemistry for his work on how DNA is converted (transcribed) into RNA.

Our incredibly talented faculty has achieved in areas other than anesthesia. I want to recognize two of them here: Kent Garman, nationally recognized as a cardiac anesthesiologist and information-technology expert, received the “Best of Show” art award for his digital photography exhibit at the ASA meeting. Audrey Shafer, nationally recognized as a leader in medical humanities, just published The Mailbox, a children’s novel that draws upon her knowledge of post-traumatic stress disorder and the connections between people that sustain us. Please read the article about her and the book on page 3.

I enjoyed seeing many of our faculty, residents, and alumni at our annual departmental reunion at the ASA and hope that you were able to attend the 2nd annual Myer H. Rosenthal Lecture in Critical Care given by Robert Sladen on October 30 and the inaugural Sheila E. Cohen Lecture in Obstetrical Anesthesia given by David Birnbach on November 5.

Ronald G Pearl, MD, PhD
Professor and Chairman
Department of Anesthesia
DEPUTY CHIEF’S COLUMN
by Rick Novak, MD

Clinical Case of the Month: A 62-year-old asthmatic with obstructive sleep apnea develops a heart rate of 125 and a blood pressure of 160/95 in the Recovery Room, thirty minutes after an uvulopalatopharyngoplasty (UPPP). His pain is well-controlled, and he has no dyspnea or chest pain. The patient is two years status-post an inferior myocardial infarction; he is known to have 60% occlusions of his left anterior and circumflex coronary arteries. The nurse asks you if she can give the patient a beta-blocker.

What do you do?

Discussion: By the time you receive the call from the Recovery Room, you’ve already returned to the OR and induced and intubated your next patient. You give the Recovery Room nurse a verbal order to administer 10 mg of IV labetolol. The nurse calls back five minutes later and says that the patient developed severe wheezing, the oxygen saturation dropped to 60%, and he’s complaining of substernal chest pain. You call one of your partners to take over your anesthetized patient, and you rush to the Recovery Room. You arrive just in time to witness your cyanotic, wheezing patient go into cardiac arrest. A miserable scenario. Is it possible?

If your patient died, do you think a plaintiff’s attorney would be willing to sue you for malpractice? Can you imagine this question at the deposition: “Doctor, what were you thinking when you treated this patient with known bronchospastic disease with a drug known to reverse beta-mediated bronchodilation?”

There are multiple case reports in the medical literature where non-selective beta-blockers led to exacerbations of bronchospasm in patients with asthma. As recently as 1995, one could find admonishments like this in the medical literature: “Worsening or precipitation of asthma by beta-adrenoceptor antagonists is well recognized. Severe bronchoconstriction may be induced even in ‘mild’ asthmatics, and the dose of beta blocker required may be low, as in the case of eye drops of timolol, a nonselective beta blocker used to treat glaucoma. The severity of bronchoconstrictor response is not predictable. Nonselective beta blockers are more likely to precipitate bronchospasms in patients with asthma. The mechanism of beta-blocker-induced asthma is still not certain. Normal subjects develop neither deterioration in lung function nor an increased bronchial hyper-reactivity; therefore, beta blocker drugs should in general be avoided by asthma patients.” (Im Hof, Schweiz Rundsch Med Prax. 1995 Mar 14; 84 (11):319-20).

Let’s think things over again. Because your tachycardic, hypertensive patient has coronary artery disease, you are concerned about his risk for an acute cardiac event. You run through a quick benefit-risk analysis. If you do nothing, the patient may develop angina or a myocardial infarction. If you treat the hypertension with a vasodilator, you can decrease the blood pressure, but you’re likely to increase heart rate further. If you give a beta-blocker, you’re aware that there is some risk of inducing bronchospasm.

What about a beta-1 cardioselective beta-blocker? How safe would a beta-1 blocker be in this situation? You order the nurse to titrate in 2 mg IV increments of metoprolol. After 6 mg, the heart rate decreases to 72 beats per minute, and the blood pressure is 110/75. The patient does not develop wheezing.

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In their paper “Safety of therapeutic beta-blockade in patients with coexisting bronchospastic airway disease and coronary artery disease” (*Am J Ther.* 2003 Jan-Feb; 10 (1):48-50), S. Khosla et al prospectively followed 835 consecutive outpatients with symptomatic coronary artery disease at Mt. Sinai Hospital in Chicago. Thirty of the 835 patients had concurrent bronchospastic disease. All patients were treated with an oral beta-1 antagonist. Twenty-nine of the thirty patients attained successful beta blockade (defined as heart rate less than 70) without bronchospasm. One patient discontinued the beta-1 blocker as a result of lifestyle-limiting bronchospasm. He had no serious adverse outcome, and he did not require hospitalization. The authors concluded that selective beta-1 blocker usage was safe in this population.

What about intravenous beta-1 blockers in the setting of acute cardiovascular disease? In their paper, “Beta-blocker therapy of cardiovascular diseases in patients with bronchial asthma or COPD: The pro viewpoint”, Ashrafian and Violaris reported: “Extensive randomized clinical trial data support the view that beta-blockers have a significant impact on the prognosis of patients with cardiovascular disease, especially those with coronary artery disease and chronic heart failure. Unfortunately, this essential treatment is often withheld from patients with asthma and from some patients with Chronic Obstructive Pulmonary Disease (COPD). The principal concern, a concern supported by a number of guidelines, is that beta-blockers may precipitate severe and potentially fatal bronchospasm. However, a number of studies, culminating in a recent meta-analysis, show that cardioselective beta-blockers are not only safe but are beneficial in patients with co-existing airways and coronary disease. In this article we review the evidence supporting the position that cardioselective beta-blockers, when introduced with care in both community and hospital settings, are safe in patients with mild airways disease and can significantly improve prognosis.” (*Prim Care Respir J.* 2005 Oct; 14 (5):236-41).

Although I was unable to find a prospective, randomized trial documenting the safety of intravenous beta-1 blockers in patients with both bronchospastic disease and coronary artery disease, it’s my impression that the literature supports this practice.

I queried the other private-practice anesthesiologists on the faculty at Stanford University Hospital regarding their use of beta-blockers in asthmatic patients, and the results were consistent. The private Attendings favored a risk-benefit analysis, but almost everyone admitted to titrating small doses of beta-1 antagonists, when indicated, in patients with bronchospastic disease. None of my colleagues reported a complication with this practice.

When I finished my Stanford anesthesia residency in 1986, almost no one dared to give IV beta-blockers to an asthmatic. Things change. That’s my advice to the residents of 2006-2007: keep on reading after residency, because . . . things will keep changing.

**Clinical case for next month:** A 5-year-old boy is scheduled for general anesthesia for a cochlear implant. On your pre-operative phone call to the mother, she tells you that after the same surgery on the other ear, the child was severely agitated in the Recovery Room. The last anesthesiologist told her that agitation was a common side effect for the sevoflurane anesthetic that was used.

**What will you do?**

Rick Novak, MD
Associated Anesthesiologists Medical Group
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CONGRATULATIONS, DR. SARA STEWART
RESIDENT-OF-THE-MONTH, AUGUST 2006

CONGRATULATIONS, DR. SARAH NAMATH
RESIDENT-OF-THE-MONTH, SEPTEMBER 2006

CONGRATULATIONS, DR. ERIC SMITH
RESIDENT-OF-THE-MONTH, OCTOBER 2006

CONGRATULATIONS TO OUR STELLAR
ATTENDINGS-OF-THE-MONTH

DR. KEVIN CHAN, JULY 2006
Santa Clara Valley Medical Center

“Awesome mentor, teacher, and exemplary role model
whose internal medicine background is evident…possesses
superior clinical judgment, readily teaching us how chronic
disease and acute anesthetic management intersect in the
OR.”

“…one of the best teachers I have ever had, inside and
outside of medicine. I found his down-to-earth, collegial
teaching style extremely effective.”

DR. COSMIN GUTA, AUGUST 2006
Stanford University Hospital

“Dr. Guta is the mortar that holds the Stanford General
Operating Room together. As the most frequent call
attending, he impressively manages the OR environment in
even the most harrowing of times.”

DR. KYLE HARRISON, SEPTEMBER 2006
Veterans Administration Hospital

“He is patient with resident interaction… he asks
challenging questions and gives understandable explanation
to educate us…his attitude and perspective fire you up
about anesthesia and physiology.”

DR. HENDRIKUS LEMMENS, OCTOBER 2006
Stanford University Hospital

Resident responses:

“Dr. Lemmens always makes sure the job is done right—
no cutting corners. This is why he is requested most often to
provide anesthesia for other physicians going under the
knife.”

EDITOR’S NOTE

New email address? Would you like to submit an article or news item for consideration? Contact rohrs@stanford.edu
KENT GARMAN WINS BEST IN SHOW
by Patricia Rohrs

J. Kent Garman, MD, was awarded one blue ribbon for First Prize in his category (digital photography) and a plaque for “Best in Show” in the 2006 ASA Art Exhibit for his stunning digital photo of ceramic mosaic birdhouses against a cerulean sky.

The exhibit’s theme was “My Hometown,” which for Garman is Half Moon Bay, where the birdhouses were displayed in the antique store, Half to Have It.

The professional art judges, drawn from ASA’s host city (Chicago), noted: “Hard choice—all of your photographs are noteworthy. This one is particularly riveting. We especially love the subject. The birdhouses are beautiful in themselves. The colored tiles are very appealing, and the blue sky really creates a balance. The branches against the sky create a nice silhouette effect.”

Garman began his avocation as both a black and white and color photographer, when he was a teenager. He took the winning photograph with a Nikon D70s camera, digitally manipulated it with Photoshop Elements, printed it on a large-format color ink-jet printer, and framed the work for display. He previously won First Prize in his category in 2004.

The ASA Art Exhibit accepts work in painting, photography, computer-generated art, graphics work on paper, sculpture, literature, and crafts.

2007 EDUCATIONAL OFFERINGS
by Meyer Rosenthal, MD

The first half of 2007 will be marked by three, major education programs that supplement the department’s usual educational activities (Grand Rounds, Visiting Professors, Workshops, Simulation, and the Resident Didactic Series):

- (New) Anesthesia 202 “Anesthesiology and Pathophysiologic Implications for the Perioperative Patient” for medical students
- The 20th Anesthesia Update Conference Sponsored by Stanford Anesthesia Department
- The Annual Anesthesia Resident Refresher Course

“Anesthesiology and Pathophysiologic Implications for the Perioperative Patient” (Anesthesia 202) will meet Tuesday evenings from 6:00 to 8:30 pm (dinner provided) in the Anesthesia Conference Room in Stanford Hospital. Offered for the first time, this course is open to all registered medical students.

The objectives of this lecture course (with time for questions and discussion) are threefold: (1) to review organ physiology in the context of patient care, (2) to discuss the pathophysiologic mechanisms at work in the perioperative period—mechanisms that influence patients’ surgical outcomes and management, and (3) to learn anesthesia-specific subjects. Organ systems to be addressed include cardiovascular, respiratory, renal, hematologic, and cerebral. Students who now or in the future work in acute care of perioperative and critically ill patients will learn about airway management, ventilatory support, transfusion practices and the acute management of shock. Lastly, students will study specific, anesthesia-related topics: history of the specialty, stress effects of anesthesia and surgery, anesthetic pharmacology, and predictions about the future role of anesthesia in surgery.

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Lecturers are Stanford and guest anesthesia faculty. Guest faculty include the following:

- Doug Bacon, MD, Professor of Anesthesiology at the Mayo School of Medicine, Editor of the ASA Newsletter, and expert in the history of anesthesia,
- David Glass, MD, Professor and Chair of Anesthesiology at Dartmouth School of Medicine, Chair of the Board of Directors of FAER, and former Director of the ABA, and
- Mark Lema, MD, Professor and Chair of Anesthesiology at New York State Medical School at Buffalo and current President of the American Society of Anesthesiologists.

The 20th Anesthesia Update Conference Sponsored by Stanford’s Anesthesia Department is a nationally recognized anesthesia conference offered for 17 years by the Medical College of Wisconsin and since 2004 sponsored by Stanford. This conference, attended by both practicing anesthesiologists and nurse anesthetists, has been recognized as one of the finest CME activities in the country. The 2007 course will be held at the Copper Mountain Ski Resort in Colorado from March 4 to 9.

In this its 20th year, the faculty from Stanford includes Drs. Brendan Carvalho, Andrew Patterson, Ronald Pearl, and Mike Rosenthal. Guest faculty are Michael Roizen, MD, Professor and Chair of Anesthesiology at the Cleveland Clinic, who is author of two New York Times bestsellers Real Age and You; Roberta Hines, MD, Professor and Chair of Anesthesiology at the Yale School of Medicine and President of the AUA; and JC Gerancher, MD, Associate Professor of Anesthesiology at Bowman Gray Medical School and Section Head of Regional Anesthesia and Acute Pain Management.

This nationally recognized faculty will focus on preoperative assessment, obstetric anesthesia, cardiac physiology and pharmacology, transfusion medicine, fluid and electrolyte therapies, regional anesthesia, diabetes and hypertension related to anesthesia practice, intraoperative ventilatory support, and substance abuse.

Also offered will be the popular clinical forums—faculty presentations and discussions of complex, patient-care cases, amplified by registrants’ participation.

The goal is to provide a first-class educational experience relevant to our daily practice of hospital-based anesthesiology, in a pleasing, family-oriented environment. Our hope is that attendees experience a worthwhile time away from their busy practices. Any profits realized from this meeting will be contributed to the educational and research programs of the Stanford Department of Anesthesia.

Please find additional information about the conference at https://www.anesupdate.org/index.html

The Annual Anesthesia Resident Refresher Course June 16–17, 2007 at Stanford offers residents a weekend review of basic and advanced anesthesia concepts to help them prepare for the anesthesia certifying examinations. The course format includes both formal didactic presentations and question and answer sessions led by both Stanford and guest faculty. Stanford faculty will include Drs. Melissa Berhow, Brendan Carvalho, Steve Fischer, Greg Hammer, Fred Mihm, Andrew Patterson, Ronald Pearl, and Mike Rosenthal. Guest faculty are Steven “Butch” Thomas, MD, Professor and Vice Chair of Anesthesiology at Cornell School of Medicine; Robert Sladen, MB, Professor and Vice Chair of Anesthesiology at Columbia School of Medicine; Mark Zornow, MD, Professor of Anesthesiology and Chief of Neuroanesthesia at the Oregon Heath Sciences University; and Ed Mariano, MD, Associate Professor of Anesthesiology at UCSD School of Medicine.

Our department is deeply committed to educating and training our residents and medical students, and we take pride in being one of the leading academic programs in the country, whose faculty is nationally and internationally acclaimed.
How did you get an agent and a publisher?

AS: When I thought the book was for young adults (ages 12 and up), I submitted it to Random House’s first-author contest for young-adult novels. Then, I sent the first three chapters to another major publishing house, whose editor requested the book, so I withdrew the manuscript from the Random House contest.

Months later, the second editor rejected the book. However, in a wonderful letter from Random House’s Stephanie Lane, she said she loved the book and would read another version, if I were to revise it. After eight months of exchanging versions, she accepted the book in winter 2005, proposing October 2006 for its launch. I got an agent because I needed one to review the contract—it took about 10 minutes to find one! Everything kept to schedule, and hence the book came out October 10, 2006.

How do you manage your writing career? Did you take time off from medicine so that you could write?

AS: I work part time due to parenting responsibilities. This schedule has given me much flexibility and has hopefully helped to keep me sane. I put together my collection of poems, Sleep Talker, while I was on a mini-sabbatical in 1999. Otherwise, I haven’t taken extra time off from medicine.

What writers influenced you the most? How?

AS: I grew up backstage, because my mother was a costume designer. Hence my childhood was influenced by playwrights, particularly Shakespeare, Moliere and Beckett. My father, a playwright, was heavily involved with the Philadelphia literati of the time, who were mostly poets. I remember a poetry reading by Gerald Stern whose poem included the image of a Fanta orange soda bottle—my first clue that poetry could contain ordinary details. I read a lot as a kid; as a latchkey kid I spent time at the public library. Some of my favorite books are The Little Prince by Antoine de Saint Exupery and The Magic Mountain by Thomas Mann. I like Mary Oliver, Jane Kenyon, Raymond Carver, Italo Calvino, Charles Dickens, and many more. The poet Emily Dickinson is awesomely weird.

PR: What is your advice for aspiring authors?

AS: I think a writing group, or a friend with whom you can talk writing, can help you see what works and doesn’t work in a piece. I would advise using those sources before sending your work into the great wide world. Also, because agents and publishers need to be hooked quickly by your writing, especially if you are an unknown writer like me, taking care with the opening can help you get in the door.

In particular, how would you advise physicians hoping to write fiction or poetry?

AS: Yes, do it! If you are looking for a writing community, we are building one at the medical school through the Arts, Humanities and Medicine Program at the Stanford Center for Biomedical Ethics:
http://scbe.stanford.edu/events/winterwritesforum.html

Could you see yourself abandoning clinical medicine and writing twenty novels instead?

AS: No, for several reasons. I love anesthesiology—I love being in the OR environment and working with bright residents, who teach me far more than I teach them. I love the sense of believing I helped someone every clinical day. I feel extremely lucky to have found this profession and such a terrific work place as the Palo Alto VA. Additionally, because I was raised by an artist, I know first-hand the sacrifices made by those who make a living by their creative endeavors alone. It is not a coincidence that my sister and I both became physicians and hence can always pay the electric bill. Another reason is that I am simply not prolific enough to write twenty novels.

Audrey Shafer’s author website is http://www.ashafer.com/ In addition to practicing anesthesiology at the Palo Alto VA, she co-directs the scholarly concentration, Stanford Arts, Humanities and Medicine Program, designed “To teach students to examine the ethical and humanistic dimensions of research and practice.” See http://scbe.stanford.edu/research/programs/sah&m.html
PAIN CLINIC OFFERS HOPE, CONTINUED FROM 2

They may have had difficulty getting a proper diagnosis and treatment elsewhere. They and their families are often at the end of their ropes.

How does the initial assessment work?

EK: Every Tuesday, Wednesday, and Thursday our team (medical doctor, nurse practitioner, child psychologist, physical therapist, and a fellow) meets two patients, each for a three-hour intake evaluation, structured as follows: First the patient, the patient’s caregiver, and the entire team spend about one hour together gathering a comprehensive history. Second, the doctors and the physical therapist perform a 30-min physical examination of the patient, while the child psychologist interviews the caregivers for 45 minutes. Third, the caregivers talk to the doctor, while the child talks to the child psychologist. During the concluding segment, the team meets to arrive at a multidisciplinary plan, then meets with the child and family to discuss its findings and make recommendations. The result of this meeting is that the patient and family often feel heard for the first time.

What have you learned about chronic pain in children?

EK: I discuss the subject at length in my book, *Relieve Your Child’s Pain*[^5] and in media interviews[^6] I have given. Key points are these:

- **Children experience and report pain differently from adults.** Whereas adults use cognition and language to understand and report their pain, children, especially those under six years of age, do not. Instead, children’s fear, anxiety, anger, depression, and guilt amplify their pain, and they may not be capable of reporting it accurately.

- **Chronic pain in children is diverse; so is treatment.** For example, chronic *functional* pain syndromes include headache, migraine, complex regional pain syndrome, recurrent abdominal pain, limb pain, and fibromyalgia.

- **Chronic, disease-specific pain** is caused by juvenile rheumatoid arthritis, sickle-cell anemia, HIV/AIDS, cystic fibrosis, irritable bowel syndrome, endometriosis, cancer, and pain caused by infections and injuries.

- **Some normal, parental responses** promote, rather than relieve, chronic pain. It is normal for parents to shelter, insulate, and pamper a child who experiences acute pain (the broken elbow, for example). However, when a child experiences chronic pain, such protective responses are counterproductive. Instead, parents should make every effort to normalize a child’s life—encourage attendance at school, keeping up with peers, and so forth. This is seldom done by parents, until they receive counseling and encouragement to help their child re-enter normal life.

- **We can teach children and their parents coping skills to minimize the pain**—via stress management and relaxation and distraction techniques that cause the brain to produce endogenous analgesics and opioids. Deep breathing is one technique that induces such a response. Listening to a speaker who guides progressive relaxation can induce a trance-like state. Once a child learns such coping skills, he owns them and can use them anywhere.

- **Childhood pain predicts adult pain,** making it even more important for children to learn how to manage their pain and maximize their function.

What settings and treatment does the clinic provide?

EK: We offer both outpatient and inpatient services, treating most children as outpatients. We aim to diagnose and treat patients with a combination of mind, body, and, if necessary, drug therapies. Mind therapies, discussed below in the interview with Rashmi Bhandari, harness the mind’s power to manage, reduce, and even eliminate pain. Body therapies (acupuncture, hydrotherapy, massage, physical therapy, exercise, and TENS) will be discussed in Part II of this article, stimulate the body to heal itself.

[^6]: Sirius radio broadcast, “It’s All Good.” Healthy Living with a Twist

Continued on page 15
PEDIATRIC PAIN CLINIC OFFERS HOPE, CONTINUED

We use drug therapies judiciously—many categories (including off-label usage) and delivery methods exist—each targeted to different causes and intensities of pain. I cover these three types of therapies in detail in Relieve Your Child’s Pain.\(^7\)

When a child is hospitalized, we often use diagnostic and therapeutic nerve blocks—with epidural, spinal, and peripheral blocks with which we can deliver analgesia to block pain at the spinal cord or nerves

What else would you like Gas Pipeline to know?

EK: The pediatric pain management service is an exceedingly important undertaking. About 10% of children experience chronic pain during their childhood that causes them to miss out intellectually, developmentally, and emotionally. Whereas vast resources have been rightfully allocated to the management of conditions such as childhood cancer, neurosurgery, cardiac surgery, and neonatology, a child’s rehabilitation from chronic pain is often unnoticed or forgotten by insurers, institutions, and foundations. In addition, because treating children’s pain is not as procedure-oriented as is treating adults’ pain, the area is not as well-reimbursed as the management of pain in adults.

How much email and telephone time do you spend per week?

EK: I am available by email and telephone seven days/week; I spend at least one hour/day corresponding with patients and families via email.

INTERVIEW WITH RASHMI BHANDARI, PHD

Child Psychologist and Tanzania native Rashmi Bhandari, PhD, joined the team in August 2005, after pursuing her career as a clinical and research psychologist at Wayne State University in Detroit, Michigan. Her previous experience includes working with children suffering from mood disorders and conducting research on disparities in delivery of mental health services.

RB: I learn about how the child’s pain impacts and triggers chaos and breakdown in each family—how pain impacts the child, the parents, and the siblings. For example, the child may be home-schooled; a parent may have quit a job to support and supervise the child; the marriage may be fracturing; the siblings are jealous and upset; and the child is isolated from friends or interactions outside of the home. I also discover whether any mood disorder (attention-deficit disorder, depression, anxiety, or mania) exists. The focus of treatment, therefore, is to help the patient and family live the best life and manage the pain, versus having the pain managing them.

RB: It’s important to educate the patient and family about the connection between mind and body and to destigmatize psychological intervention. Because the patient has received the message from multiple healthcare providers that “the pain is in your head,” the entire pain team, not just the psychologist, should contradict this message.

RB: I acknowledge the child’s dilemma—that the child in many cases does not want to be here, but she has been signed up by the parents. This acknowledgement empowers her to express herself honestly. I give the child tools of immediate benefit—tools she can master.

Continued on page 16
An example is diaphragmatic breathing, which results in dilated blood vessels, more oxygen, greater relaxation, and reduced pain and anxiety. These results encourage and empower the child to work with me and feel she has some control of her pain’s severity. I also tell her she can accept or reject my guidance and propose her own solutions.

How often do you see your patients and what happens?

RB: Barring geographic and insurance barriers, I see patients and their families once per week for 8–12 sessions, provided they are willing. We work on several fronts:

1. Through cognitive-behavioral therapy (CBT), I help children recognize how their thoughts, feelings, and behavior impact their pain and how they can counteract their impulses to be dominated by it. I use evidence (for example, “You went to school last week, even though you began the day feeling nauseated, and you succeeded. You can do it again.”). We also discuss how the child may unconsciously benefit from being in chronic pain.

2. I train children in such skills as relaxation; stress management; biofeedback; guided imagery; assertiveness; and self-hypnosis, to help them better manage the severity of their pain.

3. With parents, we set up plans to modify the child’s behavior, rewarding him for taking steps toward healthy behavior and discouraging self-defeating behavior that may be motivated by staying sick.

I begin a dialog with the child’s school, sometimes initiating a medical Individual Education Plan (IEP), a plan that legally binds the school to help the child.

If the child has a comorbid mood disorder, I try to alleviate the symptoms with cognitive behavior therapy; if needed, I refer the family for psychiatric evaluation and subsequent additional management of mood symptoms.

What message would you like to convey to Gas Pipeline readers?

1. Be aware that this pediatric pain service exists.

2. Don’t just write an Rx. Be aware that chronic pain has physiological and functional components. Never tell a child, “It’s all in your head,” as that message invalidates the child’s experience, causes the child not want to see the psychologist, and makes my job impossible.

3. Understand the mind/body interaction of chronic pain. Recognize that when you tell a child or parent that the pain is “all in the child’s head,” what you are really expressing is your own frustration at not being able to help the child.

What else would you like us to know about your work?

RB: In my research activities, I am developing a data base (with both retrospective and current data) about the impact of pain on patients’ functioning. This database can be used by service providers, and I hope to use it to obtain grants, especially for setting up a multi-site study on how pediatric pain impacts the functioning of a child and his family and how we can help.

I also teach seminars in empathic listening and child development for anesthesia fellows and Attendings, in which we focus on appropriate responses to children at different developmental stages and on ways we can appropriately communicate with parents and patients. In addition, I teach cross-cultural communication to interns in the Department of Psychiatry.
IRONMAN TRIATHLETE, ERIC SMITH by Patricia Rohrs

Enduring the grueling Ford Ironman World Championship in Kona, Hawaii, and a 6.7 earthquake, Chief Resident Eric Smith is to be congratulated on his impressive triathlon accomplishment—swimming 2.4 miles through rough oceans, bicycling 112 miles, and running 26.2 miles over lava-covered terrain—all in one day, October 14! Eric, who spent six months training for this race, while doing rotations in Cardiac, ICU, and Peds, was one of only 1700 worldwide competitors accepted into this race.

In his own words, Smith emailed:

It's finally over. What a tough race! I've been to three other Hawaiian islands, but none touches the heat of Kona on the west side of the Big Island. Wow! The lava fields were scorching. During the 112-mile bike trek through the lava, I felt I was in an oven. Some fierce rains poured down during the trek. Then, the sun came out and converted the fields into a nice steam bath. I tell people I run like a dump truck, which held true on the marathon. I just arrived home; it's still difficult to stand up, let alone take a few steps.

All told it was one of the neatest experiences that I've been lucky enough to take part in. If you have ever wanted to push yourself to look inside and see what's lurking in the depths of your soul, I would advise doing an Ironman. Everything becomes exposed. You will never have to wonder again what's there.

Crossing the finish line, Smith made a moving gesture of remembrance: he raised a photograph of his boyhood friend, Michael Mackinnon, from Montana. Smith recalled that when boys, they had talked about how neat it would be to do the Hawaii Ironman. Each of them graduated from West Point and served an active-duty tour. After the first tour ended, Mackinnon, with a wife and two babies, volunteered for a second combat tour in Iraq. On October 26, 2006 a roadside bomb killed Ranger Captain Michael Mackinnon, while he was on a routine patrol.

Said Smith, “I carried Mike's picture through all three legs (140.6 miles total) of the Hawaii Ironman to fulfill his dream. He is now an Ironman.”

When Eric’s girlfriend, Jessica Steinberg, crossed the finish line later, Eric executed a dramatic, planned event. Click the link below and enter their bib numbers (1367 and 1709) to see what occurred:

FACULTY CORNER

ARTICLES

  This is “A Classic Paper Revisited,” based on *Anesthesiology'*s 1971 paper (1971; 35:427-52) written with Jim Trudell and former faculty member, Michael Cousins.

Continued on page 18
Henry Su, Mark C. Bieda and M. Bruce MacIver. Anesthetics discriminate between tonic and synaptic GABA-A receptors on CA1 pyramidal neurons. *Anesthesiology*. 2006; 99.


Geoffrey Lighthall, MD, PhD was awarded a grant from the Foundation for Anesthesia Education and Research (FAER) to study whether and how different lecture formats delivered to ICU residents improve their management of septic shock

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**ABSTRACTS**


Wong J, Chen C, Namath A, Patterson M, Fung E, Pearl N, Agrawal R, Patterson AJ orally presented their abstract *How to Make a Good Receptor Misbehave: Disrupting the beta2 Adrenergic Receptor PDZ Binding Motif Causes the beta2 Receptor to Signal like a beta1 Receptor In Vivo* October 13, 2006 at the American Society of Critical Care Anesthesiologists 2006 Annual Meeting in Chicago, IL. Note: Jim Wong was selected as a Resident Travel Award Winner based upon the scientific merit of this abstract.

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**INVITED TALKS**

Sean Mackey, MD, PhD spoke on *Pain and the Brain—A Systems Neuroscience Approach?* August 11, 2006 to the American Association of Physicians of India Origin (AAPIO).

Brendan Carvalho, MD spoke on *Post-Cesarean Analgesia: Making a Choice* to a joint meeting of the Society for Obstetric Anesthesia and Perinatology (SOAP) and the Obstetric Anaesthetists Association (OAA), in August 2006, at the Summer Update on Obstetric Anesthesia at Trinity College, Dublin, Ireland.

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FACULTY CORNER—INVITED TALKS, CONTINUED

- Brendan Carvalho, MD spoke on Peripartum cardiomyopathy and HIV in the pregnant patient (Clinical Forum Panel) at the October 2006 ASA annual meeting in Chicago, IL.

- Steven L. Shafer, MD gave the opening keynote speech, TCI and Propofol, in September, to the Chinese Society of Anesthesiology in Zhengzhou, China—the first-ever talk given by a western speaker to the Chinese Society.

- Steven L. Shafer, MD moderated and judged two debates conducted in Mandarin: The Future of Anesthesia: One Specialty or Many Specialties, and Regional vs. General Anesthesia, in September, at the Chinese Society of Anesthesiology’s satellite program meeting in Zhengzhou, China.

- Steven L. Shafer, MD gave the Editor-in-Chief’s address, in September, to the editorial board of the Chinese Language Edition of Anesthesia & Analgesia, in Zhengzhou, China.

- Steven L. Shafer, MD spoke about Propofol Pharmacology and Target-Controlled Infusions to the Chinese Society of Anesthesiology in Zhengzhou, China.

- Sean Mackey, MD, PhD spoke on Neuroimaging and Pain: Results from the Spinal Cord to the Brain September 21, 2006 to the UCSF Pain Group Meeting.

- Sean Mackey, MD, PhD spoke on Pain and the Brain: Functional Studies and Potential New Therapy Directions September 30, 2006 at the Northwestern 10th Annual Pain Symposium in Seattle, WA.

- In September, Elliot J. Krane, MD gave three talks as the Pfizer Visiting Professor in Pain Management at the University of Hawaii and the Kapiolani Children’s Hospital in Honolulu, HI: Overview of Pain in Children: Types, Assessment, Pharmacotherapy, Nonpharmacologic Management; Management of Acute Pain in Children; and Management of Chronic Pain in Children.

- Andrew J. Patterson, MD, PhD spoke on Beta Blockade: Is it for everyone? October 14, 2006 at the American Society of Anesthesiologists 2006 Annual Meeting in Chicago, IL.

- Raymond Gaeta, MD gave three lectures in October at Stanford’s CME course, Perspectives on Pain and Palliative Care, held in Hawaii: Physiology of Pain, Chronic Pain Management, and Pain Management in the Terminally Ill Adult.

- In October 2006, Steven L. Shafer, MD spoke on What Models of Drug Interaction Suggests about Mechanisms of Anesthetic Action at Massachusetts General Hospital in Boston, MA.

- In October 2006, Steven L. Shafer, MD spoke on The FDA and Target-Controlled Insanity at the International Society of Anesthetic Pharmacology in Chicago, IL.

- In October 2006, Steven L. Shafer, MD spoke on The FDA black box warning on Droperidol should NOT be removed as a panelist on “Debates in Ambulatory Anesthesia” panel at the ASA meeting in Chicago, IL.

- In October, Elliot J. Krane, MD moderated the plenary session for the Society of Pediatric Anesthesia (SPA) meeting in Chicago, IL. (Section on Neurobiology and Clinical Science of Childhood Pain Management).

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Faculty Corner—Invited Talks, Continued

- In October, Tim Angelotti, MD, moderated the Critical Care: Life Support and Trauma poster session at the 2006 ASA meeting in Chicago, IL.

- Sean Mackey, MD, PhD spoke on Evaluating Outcomes in Pain Medicine at the ASA Refresher Course in October 2006 at the ASA meeting in Chicago, IL.

- Sean Mackey, MD, PhD, as Visiting Professor at John’s Hopkins October 20–21, 2006 gave the Blaustein Pain Lecture, Neuroimaging and Pain—Results from the Spinal Cord to the Brain.

- Sean Mackey, MD, PhD spoke November 3, 2006 on Changing Pain in the Brain at the Ninth International Conference on the Mechanisms and Treatment of Neuropathic Pain in Bermuda.

Upcoming Events

- Dec. 16, 2006. Plan on enjoying a fabulous evening of conversation, feasting, and dancing at the annual Anesthesia Holiday Reception Stanford Faculty Club, Mayfield Avenue, Stanford.

- March 4–9, 2007. The 20th Annual Anesthesia Update will be conducted by the Stanford University Department of Anesthesia at Copper Mountain, CO. (See description on page 12).


Courses Taught

- Steven L. Shafer, MD, and Dennis Fisher led their third, 5-day workshop Pharmacokinetic and Pharmacodynamic Modeling with NONMEM in San Francisco, attended by 43 students from both academia and industry.

Consider Giving a Gift to the Department of Anesthesia

Make your end-of-year contribution to Stanford’s Department of Anesthesia. Click http://pgnet.stanford.edu/goto/AlumniDeptAnesthesiaGift
Babies

Glenn A. Valenzuela, MD and Itziar Aperribay announce the October 18, 2006 birth of their daughter, Naia, via scheduled C-section. Their stellar OB anesthesia team included Steve Lipman, Manik, and Dai.

Twin boys Benjamin Balmin and Joshua David Balmin were born October 10, 2006 at Stanford to Lucia Povor and her husband, Andrey Balmin. Aaron weighed 6.0 lbs and Joshua 5.3 lbs. They are thrilled with their new family.

Zully (Zulfikar) and Suma Ramzan announce the October 7, 2006 birth of their son, Kabir Zulfikar Dutta Ramzan, who weighed 6 lbs 13 ounces and measured 19.75 inches. They were assisted by obstetrician Bonnie Dwyer and by anesthesiologists Amy Evers and Steve Lipman. Ed Riley placed “an amazing epidural.”

Jennifer and David Cappelloni announce the birth of “perfect” Julia Liane on September 30, 2006. Julia weighed 8 pounds and measured 20 inches.