A patient, a doctor, a friendship for life
Exploring the powerful bonds of medicine

A student battles disease in Bolivia  
A breakthrough in lung cancer  
Creating a “neural network” of clinical care
AFTER NICOLE BOND GRADUATED FROM COLLEGE LAST YEAR, SHE WAS JOINED IN CELEBRATION BY HER FAMILY AND ONE OTHER PERSON—HER DOCTOR. MARILYN MANCO-JOHNSON SAVED NICOLE’S LIFE AND THEY DISCOVERED THAT BEHIND THE MEDICAL CARE LAY A WARM FRIENDSHIP 14–18

The doctor-patient bond can be a powerful thing, one that the CU medical school addresses in its curriculum in the context of ethics and boundaries.

Cover photo and photo left by Glenn Asakawa
Looking into “aging out”

As pediatric health care becomes more and more effective, we’re seeing an interesting issue arise at the Anschutz Medical Campus. Chronically ill children and adolescents are “aging out” of The Children’s Hospital (TCH) and moving to University of Colorado Hospital (UCH) or one of the medical school’s other affiliate hospitals.

It’s a good problem to have, but it does pose new challenges. So with the support of the heads of both hospitals, we have begun discussions on this form of transitional care. We have a big advantage: UCH, TCH and the medical school are physically close on the campus. We provide clinical services to patients with cancer, hemophilia, sickle cell, diabetes, cystic fibrosis, congenital heart disease and many more. Whereas in my training years not many of these children made it to adulthood, it is very different today. Our goal now is to embrace this shift and make it work as well as possible for patients.

This fits right in with our other major effort: making the campus clinical enterprise more patient-centered, safe and efficient. You can read more about this effort on page 6 in a Q-and-A with Douglas Jones, MD, whom I have asked to help lead the initiative.

We’ve had several other transitions in which alumni and others might be interested. University Physicians, Inc. (UPI), the business enterprise for our clinical practice on campus, welcomed a new executive director March 1. Jane Schumaker comes to us from the University of Chicago, where she was associate dean for administration at the University of Chicago Biological Sciences Division and Pritzker School of Medicine. As senior associate dean for finance and administration, Jane also will be one of my key advisers. She succeeds Lilly Marks who, after nearly two decades heading UPI, was named vice president for health affairs of the University of Colorado and executive vice chancellor of the Anschutz Medical Campus.

In 1991, the same year Lilly Marks began at UPI, Frederick Grover, MD, took over the Division of Cardiothoracic Surgery. In 2002, he became chair of the Department of Surgery. Recently, Fred announced his intention to step down. We’re searching for a replacement. Meanwhile, we’ve chosen a new leader for the Department of Medicine. David Schwartz, MD, MPH, who is a professor of medicine and immunology, has moved into that role.

We have an alumnus in Colorado state government. Governor John Hickenlooper named Chris Urbina, Class of 1980, as director of the state Department of Public Health and Environment. Chris, profiled in this magazine a year ago, was director of public health at Denver Health Medical Center.

I hope to see many of you back for your reunions the last weekend of May.

With warm regards,

Richard D. Krugman, MD
Dean, School of Medicine
Vice Chancellor for Health Affairs
University of Colorado
CU, medical school, adopt new brand

The University of Colorado is making the look and language of its communications more consistent throughout the CU system, including the medical school. That means the medical school now is called the University of Colorado School of Medicine; there’s no more “Denver” in the title. (And no more Health Sciences Center, for that matter.) Structurally, however, the school remains part of the University of Colorado Denver. Grants, for example, still will come through UCD.

"While our name and location may have changed over the past 127 years, our mission and vision remains," says Jerry Wartgow, chancellor of the University of Colorado Denver. "As a diverse teaching and learning community that creates, discovers and applies knowledge to improve the health and well-being of Colorado and the world, maintaining a consistent brand is at the heart of our past, present and future success."

There’s more information about this effort at medschool.ucdenver.edu/CUMedToday/peaks.

Colorado Springs leaders propose branch medical school campus

A leadership group in Colorado Springs called Operation 6035—named after the city’s elevation—has proposed creating a clinical branch campus of the School of Medicine to improve the local economy. The medical school and Operation 6035 predict the expansion would include 24–48 students a year. "We believe that a clinical campus would not only have a positive impact on patient care, but a positive economic impact on the Pikes Peak region," Dean Richard Krugman wrote in a letter to the Colorado Springs Gazette. Leaders of the city and the school are reviewing cost, physician interest and funding estimates to see if they should move forward with the expansion. The effort does not rely on state financial support, as did previous plans for a branch in Grand Junction, which stalled because of the tepid Colorado economy.

To learn more about the branch campus, go to medschool.ucdenver.edu/branchcampus.

University of Colorado Anschutz Medical Campus

School of Medicine

CU, medical school, adopt new brand

The University of Colorado is making the look and language of its communications more consistent throughout the CU system, including the medical school. That means the medical school now is called the University of Colorado School of Medicine; there’s no more “Denver” in the title. (And no more Health Sciences Center, for that matter.) Structurally, however, the school remains part of the University of Colorado Denver. Grants, for example, still will come through UCD.

"While our name and location may have changed over the past 127 years, our mission and vision remains," says Jerry Wartgow, chancellor of the University of Colorado Denver. "As a diverse teaching and learning community that creates, discovers and applies knowledge to improve the health and well-being of Colorado and the world, maintaining a consistent brand is at the heart of our past, present and future success."

There’s more information about this effort at medschool.ucdenver.edu/CUMedToday/peaks.

Hospital leaders Gabow, Schroffel receive honors

Patricia A. Gabow, MD, CEO of Denver Health, won the 2010 David E. Rogers Award from the Association of American Medical Colleges (AAMC). "On a daily basis, she performs the health care equivalent of a high-wire balancing act: expanding access to care for Colorado’s most vulnerable populations" while providing excellent care, the AAMC says. The award recognizes medical school faculty (she’s an affiliate faculty member of the CU medical school) who have improved the health and health care of the American people. And The Denver Post named Bruce Schroffel, president of the University of Colorado Hospital, "Business Person of the Year." A Post article about Schroffel noted that the hospital is expanding even in the face of challenging economic times. "He has a big heart and the ability to get things done," business leader Pete Coors, who helped recruit Schroffel, says of the hospital leader.
Medical school professor wins national award for educating the public about science and technology

Dr. J. John Cohen joins a list of recipients that includes Carl Sagan

Dr. J. John Cohen, a School of Medicine professor of immunology and medicine who has taught students and thousands of other Coloradans, received a national honor that's also gone to astronomer Carl Sagan. The American Association for the Advancement of Science gave Cohen its 2010 Award for Public Understanding of Science & Technology. The teacher known as JJ has spent his career demystifying science for students and the general public. Since Cohen founded the Mini Med School in 1989, more than 17,000 people, from kids to grandparents, have attended the free series of talks on medical science. He also started Denver's Café Scientifique, a public forum for scientific discussions, and Café Pedagogique, an informal meeting for conversation and discussion of teaching and learning for students, staff, faculty and friends of the Anschutz Medical Campus. The award committee said Cohen “has dedicated his career to thinking of new ways to share the excitement and importance of science with the general public.”

Diversity by the numbers

The School of Medicine has been pushing to increase the diversity of its student body. Through increased community outreach, pipeline programs and financial support from the public and the university, the results this year were striking, and far above national average.

13 students in the Class of 2013 are part of an ethnic or racial group that is underrepresented in medicine (URM).

33 URM students entered the school as members of the Class of 2014.

Those 33 include 18 Hispanics, 6 African-Americans, 4 Native Americans, 4 Vietnamese and 1 Native Hawaiian.

13 of those 33 received scholarship money from a fund created by CU President Bruce Benson.

160 people now are accepted yearly as first-year medical students.

For more information on diversity at the medical school, go to medschool.ucdenver.edu/diversity.
Jane T. Schumaker was named executive director and chief executive officer of University Physicians, Inc. (UPI), which provides support for the clinical business and professional contracting operations for CU medical school doctors. She also serves as senior associate dean for finance and administration in the medical school. Schumaker comes to Colorado from the University of Chicago medical school, where she was associate dean for administration. Her new roles with UPI and CU began March 1, 2011.

“CU doctors are key to the success of one of the top medical schools in the country,” Schumaker says. “I want to keep that momentum going in education and to support our doctors as they continue to serve Coloradans with excellent health care, research and community involvement.”

Schumaker succeeds Lilly Marks, who now serves as CU vice president for health affairs and executive vice chancellor of the Anschutz Medical Campus.

Researchers focus on human astrocyte cells for spinal cord injury repair

For the first time, scientists at the school of medicine have shown that a type of human cell, generated from stem cells and transplanted into spinal cord-injured rats, provides tremendous benefit, not only repairing damage to the nervous system but also helping the animals regain locomotor function. The study focuses on human astrocytes—the major support cells in the central nervous system. Transplantation of these cells may represent a new avenue for the treatment of spinal cord injuries and other central nervous system disorders. Stephen Davies, PhD, associate professor in the Department of Neurosurgery, says different types of human astrocytes, derived from the same population of human precursor cells, have completely different effects when it comes to repairing the injured spinal cord. Jeannette Davies, PhD, assistant professor at the CU School of Medicine, was co-lead author of the study which was conducted in collaboration with the University of Rochester Medical Center.

Ike’s medical stay remembered

Ceremonies were held on Veterans Day to mark the 55th anniversary of the discharge of former President Dwight Eisenhower from the Fitzsimons Army Hospital, now known as Building 500, the administrative building for the School of Medicine on the Anschutz Medical Campus in Aurora. Ike was in the eighth floor suite for seven weeks following a heart attack in September 1955. (The president initially complained of discomfort but attributed it to a hamburger with onion he’d eaten while golfing at Cherry Hills Country Club.) Medically speaking, his stay was a success; Ike recovered and went on to serve a second term as president. Visitors can tour the suite, which has been restored, and read the Secret Service logs of his stay.

You can read a medical account of Ike’s heart attack and a story about his discharge from the hospital at medschool.ucdenver.edu/CUMedToday/peaks. You can also see a photo of his Fitzsimons suite.
Expanding cord blood donations from minority groups

When African-Americans need cord blood transplants, they have a far smaller chance than Caucasians of finding a donor. The University of Colorado Cord Blood Bank, a component of ClinImmune Labs and the University of Colorado School of Medicine, is trying to change that. The bank has been awarded a $6.3 million federal grant to collect and store umbilical cord blood, with an emphasis on donors from minority groups. Umbilical cord blood is rich in stem cells and can be used to treat patients with blood-related illnesses such as leukemia.

“Cord blood transplants now make up one quarter of all bone marrow transplants in this country, compared to less than 2 percent in 2000,” says Brian Freed, PhD, professor of medicine and immunology at CU’s medical school and executive director of ClinImmune Labs. “Caucasian patients have a 90 percent chance of finding a well-matched cord blood donor, but African-American patients have only a 50 percent chance.”

Genome research may prevent surgeries

The CU medical school is helping pioneer an approach to analyzing suspicious thyroid nodules that rely on a person’s genome. This could eliminate the need for tens of thousands of thyroid surgeries nationally each year, sparing patients costs, discomfort and risk, says Bryan Haugen, MD, who heads the Division of Endocrinology, Metabolism and Diabetes. When thyroid nodules are biopsied, in many cases the results are inconclusive. Often, as a precaution, doctors remove all or part of the thyroid. Haugen and a national team sought to determine if a genomic test, developed and marketed by Veracyte, a California-based molecular diagnostics company, could help patients avoid those surgeries. The answer is yes. “When we see test results showing the right patterns we can say with a great deal of certainty that, despite initial concerns, the patient does not have cancer,” Haugen says.

To learn more about the thyroid test, go to medschool.ucdenver.edu/CUMedToday/peaks.

CU doctors rescue a 2-year-old boy whose heart stopped for almost an hour

Neurologist Tim Bernard, MD, was involved in the remarkable recovery of Gore Otteson, a boy who was found seemingly lifeless last fall. The 2-year-old’s heart apparently stopped for about an hour while the family was vacationing in Gunnison, Colo. The toddler wandered off and, after a frantic search, was found in a ditch. His mother later told reporters her son was “lifeless, cold, wet … he looked dead.” Once his heart began beating, Gore was flown to The Children’s Hospital. There, doctors lowered his body temperature and then slowly warmed him up using an approach that is in clinical trials. Bernard, an assistant professor of pediatrics and child neurology, feared Gore suffered brain damage. But Gore came out of treatment just fine; an MRI found no brain damage. “If you believe in miracles,” Bernard says, “this one would count as such.”

To see a video of Bernard and the rescue of Gore Otteson, go to medschool.ucdenver.edu/CUMedToday/peaks.
Creating a “neural network” of clinical care

Doug Jones on making improvements in a complex system

By Dan Meyers

How do you take something very good—clinical care on the Anschutz Medical Campus—and make it even better? That’s what Doug Jones, MD, was asked to figure out. The medical school’s dean, Richard Krugman, MD, last year named Jones senior associate dean for clinical affairs. Part of his job is to find ways to promote what Krugman calls “clinical transformation” on a campus that includes the medical school, University of Colorado Hospital, The Children’s Hospital and the physician network, University Physicians, Inc. Jones, a former chair of the Department of Pediatrics, spoke about the effort.

Question: What are your goals?
Answer: The most important thing is to have effective ways of coordinating our decision-making and following through across a complex clinical practice. We have good individual systems but not necessarily across the clinical practice as a whole. We need to link ourselves together with what I think of as a sort of a neural network of people and systems that reliably collects and responds to information from across the practice.

What else beyond the neural network?

We need to ensure that clinical excellence continues to be recognized and rewarded within the School of Medicine. We also need to make sure we have in place resources for faculty development in the scientific disciplines that relate to patient safety, quality improvement and maximizing value in health care.

What about data systems? How important is precise measurement of what’s going on clinically?

Very important. We need to make sure we have the systems and, just as important, the capacity for data analysis to keep track of what we do in clinical care. But I have to say, as important as technology is, we have data now that we don’t use because we lack the analysts to bring it together and present it in ways that people can respond to it.

Q: You said this is a complex environment. How do you get everyone on board and moving forward?
A: Complex organizations don’t respond well to micro-managing. It just doesn’t work. We need to have simple principles we agree to, and then
I’m confident the faculty, with typical energy, creativity, skill and passion, will find ways to make us the best possible group of physicians. We need to be the place in this part of the country for excellent clinical care.

Q: What other barriers do you see?
A: We serve an especially complex group of patients. Part of the complexity is due to the broad range of medical conditions that come to an academic medical center, from straightforward to the most complicated. Another element is the fact that we care for patients from all parts of the socioeconomic spectrum. Nonmedical social circumstances have important implications for medical care. It’s harder than one might think to set up one system that serves all these patients equally well. Also, as many others have pointed out, with fee-for-service reimbursement, care tends to be fragmented. Coordination is not paid for. It depends on goodwill. It doesn’t arise spontaneously out of the reimbursement system.

Q: Obviously, the hospitals, medical school and UPI are under different leadership. Are things too fragmented to make progress?
A: It only would be a problem if leaders of each of these institutions weren’t committed to making this work. Leadership at the School of Medicine is especially important. With Dick Krugman as dean for 20 years, we have the best possible situation.

Q: The public might find this exercise odd. You’re leading an effort that’s striving for excellence, but a patient might say, “What, you aren’t always doing that anyway?”
A: We have superb individual physicians and other professionals and outstanding programs, but we are not as consistent or as coordinated as we might be. We can’t ask people to work harder or be more devoted to patients. They’re doing that. We need to build a more effective system that delivers the safest and best care for the least amount of money. We have to show that we can do this every day.

Q: I’m trying to find a phrase to describe this. Is this a cultural shift?
A: We need to resist the temptation to think in terms of my department, my center, my hospital. All of the health professionals and institutions on the Anschutz Medical Campus need to work closely and collaboratively with only one thing in mind: the welfare of the patient.

Q: Are there examples you’d point to now?
A: A recent example of inter-hospital and inter-professional collaboration is the maternal-fetal program at Children’s and University hospitals. It’s a great idea, combining resources to treat high-risk pregnant women and their babies. But it has not been easy. There are technical barriers. For example, we have to be sure that the medical records systems talk to each other. And we have to bring together two neonatal intensive care units with different histories and traditions. There are challenges, but we have excellent people committed to making it work. They will get it done.

To read more about clinical transformation, go to medschool.ucdenver.edu/CUMedToday/features.

We can’t ask people to work harder or be more devoted to patients. They’re doing that. We need to build a more effective system.
Go, team!

Interprofessional education expands

In the fall, the Anschutz Medical Campus will launch a two-year program that will include all first-year medical students working with students from the other healthcare schools and colleges. The goal is to teach students to work in teams to improve patient care while they are still in school in the hope that they will carry that over to their clinical practices.

The effort began in February with a pilot project involving about 80 students from medicine, nursing, pharmacy, physical therapy and physician assistant programs. In teams of four to six, students work together with health mentors—patients in the community with chronic physical or mental illnesses or disabilities.

The teams will document their mentor’s medical history and engage in all aspects of the mentor’s health care over the next year. On our website, we have a full report on this approach to teamwork and patient care, including an explanation of why doctors and nurses sometimes speak different languages.

Wearing a white coat and a uniform

Growing up, Robert Enzenauer admired military leaders such as Ulysses S. Grant, Robert E. Lee, Douglas MacArthur, Dwight Eisenhower, Omar Bradley. “I thought I wanted to be one of those guys,” he says.

Today, he’s a brigadier general— and a doctor. A professor in the medical school’s Department of Ophthalmology, Enzenauer says the roles work well together. “Academic medicine and the Colorado National Guard are both large and obvious bureaucracies with clear hierarchical structures,” he says. In a Q&A, Enzenauer talks about his roles and discusses a change he helped make in how the military handles health care for troops in Afghanistan. Read it on the web.
The words “adenocarcinoma of the lung” required no further explanation. As a physician herself, Gene Burges knew what they meant.

“I told my husband, ‘I’ve had a really wonderful life,’” says Burges, 64, who received her grim diagnosis in April 2009. “I knew it was the end.” But nearly two years later, the dermatologist and associate professor at Medical University of South Carolina has kicked the chronic cough and night sweats, and—according to her grateful sons—has returned to her “energetic self.”

After watching the glowing orange beacons of cancer disappear from her scans, she went so far as to buy a new house this year.

“I know it sounds crazy, but that’s how good this drug makes you feel,” says Burges, who travels 1,700 miles from her Charleston home each month to participate in a University of Colorado Cancer Center trial of a new lung cancer drug called Crizotinib. The oval yellow tablet works by inhibiting a molecular mutation, or “oncogenic driver,” called anaplastic lymphoma kinase (ALK), believed to be responsible for turning healthy cells into cancer cells in a select subset of lung cancer patients.

Only about 4 percent of patients (roughly 10,000 new U.S. lung cancer cases annually) possess the ALK mutation and are eligible for the drug. But while that number may seem small, extraordinary successes in early multicenter trials (shrinking or stabilizing tumors in 90 percent of patients) have become big news for two reasons, cancer specialists say.
One, it’s providing another much-needed weapon in the limited arsenal against the world’s deadliest cancer. And two, it could ultimately lead to a shift in the way other cancers are treated.

“We now know that what is driving the cancer is different between different cancers. If we can screen people for these oncogenic drivers and give them the right drug to interfere with the one they have, we can have a real impact,” says Ross Camidge, director of the Thoracic Oncology Clinical Program at the cancer center and principal investigator for a number of ALK-inhibitor trials. “One-size-fits-all treatments are yesterday’s paradigm. This is personalized medicine.”

According to the National Cancer Institute, more than 222,000 cases of lung cancer are diagnosed annually and 157,000 people die of it. Ninety percent have a history of smoking. But some forms of lung cancer, such as ALK-driven non-small-cell lung cancer, tend to arise in non-smokers, like Burges.

The vast majority of lung cancer patients get their diagnosis late in the game, when the cancer is too far gone to be surgically removed or treated with radiation. The “gold standard” of treatment has long consisted of, as Camidge puts it, “chemotherapy, then more chemotherapy, then hospice,” with average one-year survival rates for advanced lung cancer patients hovering at 25 percent, and five-year survival rates around 3.5 percent.

“It is a huge global health problem in major need of a breakthrough,” Camidge says.

That breakthrough began to emerge somewhat by accident in 2004, when a new class of therapies targeting a protein called the epidermal growth factor receptor (EGFR) was licensed. Links had been drawn between EGFR and lung cancer, and doctors began to broadly prescribe EGFR-inhibitors to patients who had exhausted other alternatives. Overall, Camidge recalls, the results were “unimpressive.” But some patients were “exquisitely sensitive to the drug,” he notes, such as the one who put on 40 pounds and came off oxygen within weeks. As it turned out, those sensitive patients (roughly 10 percent of non-small-cell lung cancer patients overall) had a mutation in the EGFR molecule that not only drove their cancer but also made them particularly responsive to the drug.

It took several years for researchers to identify this subset, but the realization paved the way for a new approach for developing drugs for cancer, Camidge says. Identify the molecular group most likely to benefit, profile patients in advance and then try out your hypothesis with a specifically targeted drug early on.

“The original way of doing things was to throw a bunch of keys at cancer and hope one of them hit a lock,” Camidge says. “With EGFR inhibitors, we learned that we could identify upfront who had which lock and direct the appropriate keys to those locks.”

In 2007, after a group of Tokyo researchers found that roughly 4 percent of lung cancer patients had a change in the ALK gene in their cancer, CU cytogeneticist Marileila Varella Garcia began to develop one of the world’s first screening tests to easily identify them. By 2008, the first ALK-positive patient had been found, at Massachusetts General Hospital, and placed on Crizotinib (then known as PF-02341066). That patient did remarkably well.

On Oct. 28, 2010, Camidge and others authored a Phase I study in the New England Journal of Medicine showing that of 82 ALK-positive patients
treated with the drug for six months, 47 saw their tumors shrink or disappear and 27 stabilized. Early trials were so successful the drug is now in Phase III trials, pitting it against chemotherapy in several different settings, with more than 300 patients treated to date and FDA approval anticipated within the year. As an early innovator, CU now screens every lung cancer patient for ALK, EGFR and other oncogenic drivers, and cares for one of the largest ALK-positive populations in the world.

“I know if the drug is working within days because the patient comes in and says ‘My pain has disappeared,’” says Camidge. “I have patients asking me questions I have never been asked in a lung cancer clinic before, like ‘Can I go scuba diving?’”

But ALK-positive patients aren’t the only ones set to benefit from the emerging research on molecularly targeted therapies.

In September 2009, CU joined forces with 13 other leading cancer centers to form the Lung Cancer Mutation Consortium, which aims to study other molecular drivers (10 have been identified thus far), develop screening tests and match the right drugs with the right patients, says CU School of Medicine Professor Paul A. Bunn, MD, who heads the consortium.

“If this works, it will have a bigger impact than Tamoxifen and aromatase inhibitors did” in lowering breast cancer rates, he says. “It’s big.”

Already, thanks in part to molecular screening and targeted therapies, CU has boosted its survival rates for advanced lung cancer to double the national average at one year and four times the national average at five years from diagnosis.

Burges says she is hopeful, but realistic.

Having tested positive for the ALK change, she found her way to the University of Colorado in the fall of 2010. She went off chemotherapy, took her first pill Sept. 1 and was shocked six weeks later by what she saw on her scan.

“It was phenomenal,” she recalls. “It was near complete resolution of disease.”

Today, she says she doesn’t feel the “immediacy of death anymore.” But she knows that the chances of her being alive in two years are not good; even though the drug has quieted the driver of her cancer, cancers mutate and it will almost surely be back, driven by something else.

The average time before the cancer comes back is about nine months. Camidge and other researchers are already looking at what the something else is that might be changing in the cancer when it becomes resistant, and how to treat it.

“I am just trying to stay alive until the next thing comes along, and someday that... is going to be a cure.”

To learn more go to medschool.ucdenver.edu/CUMedToday/features.
Changes push and pull James Todd in new directions
A successful journey from clinical care to epidemiology
By Tonia Twichell

There was a moment in 1985 when James Todd, MD, realized his career providing one-on-one care for children in intensive care at The Children's Hospital was in jeopardy.

He needed to reinsert a tracheotomy tube in a very sick child. “I couldn’t see well enough to do a procedure to save the child’s life,” he says, shaking his head at the memory.

“It’s a terrible feeling knowing a child’s life hangs in the balance. No one else could get it in, so in desperation I put my little finger in there and found where the tube ought to go.”

The child lived. But afterward, Todd said to himself, “I shouldn’t do this anymore.”

Todd had been diagnosed with keratoconus, in which the cornea becomes distorted. His sight had been failing gradually. He had been reluctant to interrupt his career in infectious diseases and intensive care to get corneal transplants.

“Doctors are often the worst patients,” he says.

An enviable clinical career was over. Todd had been the first full-time School of Medicine faculty member at Children’s; he had helped establish the hospital’s Infectious Diseases program, its ICU and its first Research Center and in 1978 he published the first description of Toxic Shock Syndrome, which brought international attention.

“Sometimes change comes as a push, sometimes it comes as a pull,” says Todd, a professor of Pediatrics, Microbiology and Epidemiology at the University of Colorado School of Medicine and Colorado School of Public Health who now has corneal implants. “My deteriorating vision was pushing me in another direction, and the hospital and university fully supported me to make that change.”

Unable to treat individual children in the ICU, he turned to advocacy for all children. The change proved to be a windfall for Colorado kids and, Todd feels, for himself. Here’s a sample of the recognitions Todd’s new line of work brought him:

- Distinguished Physician Award, Pediatric Infectious Disease Society, 2008
- Denver’s Top 150 Citizens, City of Denver award, 2008
- Big Shot of the Year, Colorado Children’s Immunization Coalition, 2009
- Denver Business Journal Champion in Health Care, 2010
- James Strain Community Service Award, Colorado Chapter, American Academy of Pediatrics, 2004
- Jules Amer Chair in Community Pediatrics, 2003

Todd embraced the shift to epidemiology. He knew ICUs were treating children with preventable infectious diseases. And he knew that if they’d had a primary care doctor, they likely would have been vaccinated against many of the illnesses, heading off expensive treatment.

“Getting health care and vaccines to these kids was a pressing moral and political issue,” he says. “We shouldn’t make children the victim of our ideologies.” Todd helped push to improve Colorado childhood vaccination rates, which rose from nearly last in the nation in 2002 to 15th now.

He created the annual State of the Health of Colorado’s Children report to analyze children’s health outcomes. He helped write laws in 2007 requiring a medical home for all Colorado children with public insurance, and regular measurement their outcomes.

Now director of Epidemiology and Clinical Microbiology at Children’s, he continues to advocate for improved childhood health care.

“There is still much more to do,” he said. “Not all children have insurance and many don’t have consistent primary care. With all this debate about health care no one should be comfortable with the fact that our children are caught in the middle.”

Other pushes and pulls have resulted in additional career changes along the way, including problems with a hereditary movement disorder that now is improved.

Todd says the key to his varied career has been the flexibility of the hospital and CU: “I have been able to work in institutions that value and are really supportive of creativity.”

Each career turn, Todd says, brought him to “other things that I loved doing and I had the encouragement and support to do them.”

“We all face challenges and changes,” Todd says. “Yogi Berra has a saying, ‘Don’t look back because that’s not where you’re going,’ I always look ahead.”
“Why is daddy waddling like a penguin?”

Yang Chen's legacy of humor, insight and faith

By Tonia Twichell

Alice Chen can clearly describe the reaction of her husband, Yang Chen, MD, the day in February 2008 when he was diagnosed with Stage IV lung cancer.

“He said to me, ‘It was the strangest thing. I had always heard about the peace that passes understanding that God talks about in the Bible. But the moment I saw the X-ray and realized what it said, the only way I can explain it is that God came in and gave me that peace.’

“Through all the decisions that we had to make in the last almost three years, that peace never left him.”

At first, Dr. Chen, then director of the CU medical school’s Digestive Health Center and Endoscopy Services, had to keep the news quiet. He could not tell his staff because doctors from around the world were coming the following week to learn his latest techniques in advanced endoscopy. He did not want the staff to be distracted.

He knew he could not tell his three children because he would be busy with that visit and couldn’t be home to comfort them.

But Dr. Chen also knew that he might only have a few months to live. So, when he was ready, he told those close to him. And he blogged.

“In his limited time remaining, he wanted to show in real time the reflections of a person who is going through the journey,” Alice Chen said. “He wanted to show how to integrate the eternal, spiritual issues and the emotional ones as you walk through a journey like that.”

The blog combines three elements.

There is faith:

I still dare to hope, and I daily draw on His mercies which are fresh every morning (Lamentations 3:21). (E)ach day He carries us in His arms. (Psalm 68:19, NLB).

There is family:

Six weeks ago I began noticing pain in my lower legs and in the soles of my feet, which is triggered by walking or standing for prolonged periods of time. After one particularly strenuous day at the hospital, my 6-year-old daughter watched me gingerly limping across the living room and asked an astute clinical question: “Why is daddy waddling like a penguin?”

And there is medicine:

(The) constellation of new symptoms are consistent with leptomeningeal involvement of cranial nerves 7 (facial), 8 (auditory) and 9 (taste). I am now taking the steroid Decadron (8mg twice a day) to decrease any inflammatory swelling around these cranial nerves; I am experiencing the side effects of insomnia, an agitated feeling, and hiccups.

Remarkably, he worked through his entire illness, even attending a research and development session one week before his death, Alice Chen says.

“He taught a lot of us about courage and faith,” says Hugo Rosen, MD, head of the Division of Gastroenterology & Hepatology.

As was typical of Dr. Chen, he comforted others during his illness, helping Rosen deal with the loss of another friend and offering his shoulder to nurses when their personal issues arose.

“I had the idea that he had a great peace,” Rosen said. “I think everyone around him was more worried about him than he seemed to be.”

A non-smoker, Dr. Chen lived for more than two years after his diagnosis of adenocarcinoma. He died Oct. 15, 2010.

Dr. Chen, 58, had seen many patients go through the treatment, so he knew the process ahead would be grueling, Alice Chen says.

“I asked him, ‘What have you not gone through with your patients that you will go through now?’” she remembers.

“He said, ‘Nothing. Except death.’

To read Dr. Chen's blog, go to medschool.ucdenver.edu/CUMedToday/profiles.
A friendship between a patient and CU doctor highlights the powerful connections medicine can create and medical schools must understand

By Dan Meyers

On a sparkling Colorado day a year ago, Nicole Bond took the stage to receive her college diploma. Bond graduated *summa cum laude* from the University of Colorado at Colorado Springs.

In the audience at commencement, Marilyn Manco-Johnson watched Bond and cried. Manco-Johnson, a physician who specializes in pediatric hemophilia, first saw Nicole Bond 22 years earlier at University of Colorado Hospital. Then six days old, Nicole had startling dark blotches on her rear and one ankle. Her protein C, which helps prevent blood clotting, was so low it was undetectable. She’d had two strokes in utero. Clotting had left her blind. She was the second infant ever diagnosed with this severe problem.

“Did I think she would survive?” Manco-Johnson pauses several seconds before continuing. “No.”

Over the next two-plus decades, Nicole endured medical crisis after crisis. Her father Scott was in the Army, and he and her mother Dawn moved all over the country. Yet Manco-Johnson remained Nicole’s medical lifeline.

And out of that intense medical connection something grew. The doctor and her patient became friends. Nobody questions that friendship. But it raises an important topic: Where should each side in the health care equation draw boundaries? A doctor-patient relationship, of course, can go too far, raising ethical issues. But studies demonstrate that patients benefit when their doctor knows them well.

At a medical school, how do you talk about that?

The University of Colorado School of Medicine addresses this in classrooms and hospitals.

Professionalism is a key part of CU’s foundations of doctoring course, and others. Different disciplines on the Anschutz Medical Campus join for ethics training that includes personal boundaries. And the school is figuring out rules about social media; a decade ago, no doctor wondered whether she should “friend” a patient on Facebook.

“It’s a long conversation,” says Jackie Glover, PhD, an associate professor in the Center for Bioethics and Humanities. “People struggle with what to characterize as a friendship. It can enrich what being a doctor is all about. But there is lots of potential for conflict. Everyone draws the line in different places.”

At first, it didn’t seem like Nicole would have the chance to be anyone’s friend.
She was born June 19, 1988, in a military hospital in Washington, where Scott Bond was stationed. When Dawn went to change Nicole’s diaper and saw the baby’s black buttocks, she thought someone had dropped her girl.

“By five hours after her birth,” Dawn says, “I knew she had very serious problem.”

It was great luck that the military facility had a pediatric hematologist on staff, and that he had just read about the then-relatively new discovery of protein C deficiency. Was that what was ailing Nicole Bond? Denver was one of the few places where she could be tested.

“The first doctor we met with in Colorado said Nicki should never have been treated,” Dawn recalls. “He said she would have a horrible, prolonged death. We were despondent. We spent a long time holding our daughter.”

The doctor did suggest they consult with Manco-Johnson. Nicole was transferred to University of Colorado Hospital (UCH), where Manco-Johnson first set eyes on the terribly sick child. Manco-Johnson told the parents she would try.

In those days, it wasn’t clear how to prevent severe clots in newborns. Manco-Johnson tried the drug Coumadin, which had never been given to a patient that young. She’d take a 1 mg pill, crush it, put it in a syringe and drip it into Nicole’s throat. It wasn’t easy for Nicole, then or since. She has been a frequent visitor to UCH and The Children’s Hospital as her treatment evolved and new issues cropped up.

Lesions on Nicole’s legs would announce a new clotting episode. She was treated with fresh frozen plasma but developed an allergic reaction. She was given activated protein C, but when that stopped, her skin blotched purple.

Left, Marilyn Manco-Johnson secures Nicole Bond’s hair as Nicole’s father, Scott, shields them from the wind. Above, Nicole Bond’s clotting problems were severe but Manco-Johnson was able to save her life. In one photo she shares a hospital bed with her sister, Kristin, left.

What happens when a patient wants to write about you?

Frannie Rose had struggled to find a doctor who would not only help her feel better, but who would listen to her. Finally, she found Joel Levine, MD. He helped her. He listened. And so, grateful, she wrote him into a heroic role in a book she authored about her experiences. He’s one of two doctors named and praised in her story.

“I told him once that he was stuck with me forever and there was nothing he could do to get rid of me,” Rose says of Levine in her book, Fixing Frannie.

Rose also asked Levine to write the preface to her book, but he had concerns. Was this crossing a boundary?

“She believes a spiritual force is working through me,” Levine says, adding that he’s just trying to be a good doctor. “It raises that question of how you help a patient whose worldview is different than yours.”

The book also poses boundary questions, because Levine grew up believing that you do what’s right for its own sake, not for reward or praise. “And yet,” he says, “it was important to her for me to do this, and the book raises interesting issues about health care in the United States.”

So he gave permission to be named and agreed to write the preface, in which he presents a quick overview of issues in the health care system and offers advice to patients on how to get the most out of it.
A life-long friendship forms in Seattle's airport

John and Margaret Moyer went on a difficult visit years ago to meet a Centennial couple for the first time. After getting to know each other, Margaret asked if she could put her ear to the man’s chest. She listened—and heard the steady beat of her son’s heart.

She’d first heard that sound 23 years earlier when Andy Moyer was in her womb. A physics major at CU Boulder, Andy had died after a 1992 skiing accident the day before Christmas. As other families brought Christmas presents to their own loved ones in the hospital where Andy lay, Margaret and Dr. John Moyer, a School of Medicine clinical faculty member, decided that their gift was going to be their son’s organs.

Connections, friendship arise from a tragic loss, but “you need to be careful”

John and Margaret Moyer went on a difficult visit years ago to meet a Centennial couple for the first time. After getting to know each other, Margaret asked if she could put her ear to the man’s chest.

She listened—and heard the steady beat of her son’s heart.

She’d first heard that sound 23 years earlier when Andy Moyer was in her womb. A physics major at CU Boulder, Andy had died after a 1992 skiing accident the day before Christmas. As other families brought Christmas presents to their own loved ones in the hospital where Andy lay, Margaret and Dr. John Moyer, a School of Medicine clinical faculty member, decided that their gift was going to be their son’s organs.
an independent person, friendly, curious, very engaged."

The doctor was there for late-night sweet and sour chicken in Nicole’s hospital room before a surgery, which Manco-Johnson attended at Nicole's request. She joined the family for pasta and Dawn’s slow-cooked sauce at Ronald McDonald House, and for tea at Denver’s Brown Palace hotel for Nicole’s 14th birthday party. When Bond’s younger sister Kristin was born, Manco-Johnson was there in case her expertise was needed. But she also thought to bring a gift, a toy piano, for Nicole.

What about those doctor-patient boundaries? Friendship can’t trump medical care, Manco-Johnson says.

“But at the same time, I never have a strict feeling that I have to separate from the patients I feel friendship for,” she adds. “When I got the invitation to go to Nicole’s graduation it was wonderful. I knew immediately I was going to be there.”

Nicole has read about the doctor-patient issue. Sure, there is a line, she says, “but that line should be as blurry as possible.”

And so last year a doctor came to the college graduation of a young woman whose life she had saved.

After the tears during the ceremony, the doctor stood with three generations of the girl’s family as they posed for pictures. And in those photos, no one is smiling more broadly than Marilyn Manco-Johnson and Nicole Bond.

Go to medschool.ucdenver.edu/CUMedToday/features for more information about protein c deficiency, medical articles by Dr. Manco-Johnson, and information about ethics.

In this loss they learned that medicine can create powerful and unexpected bonds. Hoping for closure and connection, the Moyers wrote through intermediaries to three people—whose identities they did not know—who had received Andy’s organs. The Moyers asked if they could meet some day.

At first, nothing. Then a man from Queens, N.Y., responded. In a warm, hand-written note, he said that he had received Andy’s left kidney. The families have gotten together several times, memorably at the wedding of the recipient’s oldest daughter in 2004. Friends of the man told the Moyers how his awful pain and suffering had been relieved.

For a few years, the Moyers received a box of candy at Christmas with a card that said only, “From a grateful organ recipient.” Then the recipient came forward. He had been given Andy’s liver and right kidney. Since the transplants, that man has welcomed 10 grandchildren to his family.

And Moyers met the man in Centennial with their son’s heart beating in his chest. On that first visit, six months after Andy’s death, Margaret listened; John could not bring himself to hear that sound. But the meeting helped.

“We walked in wondering, ‘What are we getting into?’” John Moyer recalls. “Three hours later, when we left, we were highly encouraged and happy.”

The man had suffered from irreversible myocardial inflammation. The Moyers still meet with that couple three or four times a year and have gotten to know the extended family. John Moyer says that, while they always will ache for their son, it’s comforting to know Andy has contributed to the lives of three other people.

It can be a tricky thing, this bond that medicine creates. “You need to be careful,” John Moyer says, because both donors and recipients have to set their own boundaries.

“If it works for you, great,” he says. “It works for us.”

Moyer did his residency at The Children’s Hospital and remains on clinical faculty there. He helped run the Foundations of Doctoring course at the medical school and now volunteers for the foundations course.

He teaches students how to get to know their patients through empathy.
Balancing ethical issues in medical education

“If you never feel anything, what’s the meaning of what you are doing?”

Here is a fictional case study given to first-year CU medical students last year:

Some of the (first-year class) had a wonderful party last Friday night while wearing their “I love CU Medical School” sweatshirts and posing for pictures in various states of intoxication. They then wandered up to the anatomy lab and taped a really cool music video with the cadavers. Many of the pictures were posted on Facebook. The video was posted on YouTube. The next day one of the students looked up and befriended through Facebook a really cute guy who was a patient at her preceptor’s clinic.

Clearly this is not a good scenario.

But, as Wendy Madigosky, MD, puts it, “One of the questions we learn to ask is, ‘Why would a reasonable person do that?’ It’s important to know that. If we can build in students a growing capacity to make the right choices, then we have met the goal.”

Madigosky, an assistant professor in family medicine and director of the Foundations of Doctoring curriculum, is part of a growing effort to incorporate professionalism and ethics into coursework and conversations at the medical school.

This comes in part out of the understanding that medicine can be a highly personal interaction that leads to great rewards but also pitfalls. This may be especially true as physicians increasingly adopt a patient-centered approach to health care.

The example of Marilyn Manco-Johnson, MD, and her patient, and friend, Nicole Bond (see accompanying article), shows how that connection can grow over decades and nurture both doctor and patient.

Several studies have established that a closer doctor-patient relationship can benefit the patient and the physician as well.

“You burn out quicker if you wall yourself off,” says Marilyn Coors, PhD, associate professor in psychiatry at the Center for Bioethics and Humanities. “If you never feel anything, what’s the meaning of what you are doing? At the other extreme, if you have no boundaries then every death is of a friend and patient.”

Different doctors set boundaries in different places, as researchers at Massachusetts General Hospital found when they surveyed U.S. physicians’ attitudes toward three types of personal relationships with patients.

“Comfort with social relations with patients is highly variable,” the researchers said in the journal Medical Care in 2010, “but most agree that social ties with patients can be compatible with professional conduct. Fewer physicians believe it is appropriate to treat patients they are connected to financially. Consistently with earlier studies, fewer than 10 percent feel sexual relations with patients are ever acceptable.”

Another study, published in 2005 in the New England Journal of Medicine, made the case for emphasizing ethics early on, stating, “Disciplinary action by a medical board was strongly associated with prior unprofessional behavior in medical school.”

CU’s medical school keeps evaluating the way it teaches professionalism and has been expanding that part of the curriculum. Social media pose the newest challenge to relationships and other aspects of professionalism.

Among many recent studies on social media, researchers in New Zealand surveyed Facebook use by recent medical graduates there. Sixty-five percent had Facebook accounts, according to a paper published in 2010 in Medical Education. Of that group 63 percent kept their information private. But among those who did not restrict access to information, more than a third revealed such details as sexual orientation and religious beliefs, and nearly half posted photographs of themselves drinking alcohol and, in a few cases, clearly intoxicated. One announced membership in a group called Perverts United.

“This area [of ethics] is growing in terms of emphasis,” says Jackie Glover, PhD, who directs the Humanities, Ethics and Professionalism thread that spans all four years of the medical school curriculum. “We require an ethics course, which isn’t unusual, but we also emphasize ethical behavior as a competency in all our professional schools.

“We have obligations as human beings, professionals and friends. Sometimes they align and sometimes not.”

Health Sciences Librarian Peggy Cruse, MLIS, contributed to this article.
Economic impact, by the numbers

The School of Medicine and its neighbors on the Anschutz Medical Campus in Aurora contribute to health care, education, research and the community—and also to the state's economy. In the last 10 years, state support for the medical school has fallen by nearly half. In that same period, private support of the medical school has picked up some of the slack, increasing from nearly $20 million a year to more than $28 million, according to the CU Foundation.

14,500 Total jobs on the Anschutz campus, including University of Colorado Hospital and The Children's Hospital

14,000 to 20,000 Estimated additional Colorado jobs indirectly generated by the campus

$52 million Colorado general fund investments for all the schools on the campus, and infrastructure

$2.4 billion Total Anschutz Medical Campus budget

$5 billion Estimated campus impact on goods and services in Colorado

$19,615,174 The state appropriation for the medical school in 2001–02

$10,964,415 The budgeted state appropriation for the medical school this year
Cactus, cat claws and community
Medical students embrace the range of rural medicine
By Dan Meyers

Maybe it was the fishhook stuck in a child’s finger.

Or the two victims of rattlesnake bites who came in within 24 hours.

Or the cactus needle stuck in a gardener’s tongue.

Whatever it was, third-year University of Colorado medical student Asa Ware knew he was in the right place—that place being Wray, Colo., near the border with Nebraska and Kansas. Ware was there as part of his training in the CU School of Medicine’s Rural Track.

The Rural Track is part of a push CU’s medical school and other health care programs are making to support rural health care. There are more than 13,000 doctors in Colorado. But 16 counties, all rural, have three or fewer, according to data from the Colorado Health Institute. Bent and Washington counties have none.

Ware grew up in Wray. He already was keen on rural medicine and his four weeks back home last summer “really cemented it. It reassured me that is something I’m really interested in.”

By the third year of the medical school program, CU med school students serve in rural towns for up to three months. Of the first Rural Track class, which graduated last year, more than half stayed in the state for further training.

“In rural medicine, you will be truly needed and appreciated,” says Mark Deutchman, MD, who practiced for a dozen years in White Salmon, Wash., and now heads the Rural Track. “You can have a rich, varied, rewarding professional and personal lifestyle.”

Second-year medical student Jason Yost, who grew up on a farm outside Montezuma, Kan., says the variety of experience a rural doctor gets is key for him.

“I love the scope,” says Yost, who trained for a month in Cortez last summer and helped deliver a baby on his second day. “I’m a generalist. I like having my hand in a bit of everything, knowing how to treat the whole person.”

Camille Allison, also a second-year medical student, recalls the guy with a deep cat bite who came into the offices where Allison was working in Calhan, on the plains east of Colorado Springs. The cat had been caught in barbed wire. The patient decided to rescue it. Without gloves. Chomp.

“I saw a large variety of cases,” Allison says with some understatement.

For many students, a rural community also is just a nice place to be.

“The people, the community,” says Allison, who grew up near Calhan, when asked what appeals to her about rural medicine. “That’s the kind of place where I grew up. I love the people out there.”

CU also offers the Interdisciplinary Rural Immersion week that includes students from the MD, Physician Assistant, Pharmacy, Nursing, Public Health and Psychology programs. The university reaches out through the Rural Scholars program, which informs younger students about health care careers. It’s run by the Area Health Education Center program, known as AHEC, at CU.

State funding for CU’s medical school has dropped by about half in the last nine years. In per-student support among public medical schools, CU is third from the bottom nationally. Partly as a result, CU’s medical students typically graduate with six-figure debt that’s higher than the national average. Rural medicine might not be a pathway to riches, even though the cost of living in rural areas is relatively low.

Yost, the student from Kansas, says rural medicine still is appealing.

“I’m not a materialistic person,” says Yost, who farmed his own spread before deciding at age 23 to go to college. “My idea was, ‘How can I use the skills I have to help the most people?’ It was either teaching or medicine. I chose medicine.”

For students such as Ware, roots are important.

“Wray is always in the back of my mind,” says Ware. “It’s a community that has given so much to me. I would love to give back in return.”

To learn more about the Rural Track, go to meschool.ucdenver.edu/ruraltrack.
A new study led by University of Colorado School of Medicine faculty and state researchers challenges a popular assumption that altitude is the primary cause of the high rate of suicide in Colorado and other western mountain states.

For decades it has been one of Colorado’s most perplexing medical and societal mysteries: How can a state known for its scenery, high national ranking for health and bragging rights as the fittest in the nation also be a place where so many take their own lives?

The numbers are striking. In 2009, 940 Coloradans committed suicide—more than in two decades, according to state health statistics. More died from suicide than from automobile accidents, breast cancer, diabetes, pneumonia or homicide.

Colorado typically has had a suicide rate up to 40 percent higher than the national rate. In 2007 (the last year statistics were available), the National Center for Health Statistics ranked Colorado sixth highest in the country. Other states with high suicide rates include Alaska, Montana, Wyoming, New Mexico and Utah.

This has led experts to speculate that the cause is linked to altitude: Maybe diminished oxygen triggers a chemical imbalance in the brain, or renders anti-depressants and other medication less effective.

But the new study suggests that altitude alone cannot be blamed, says Dr. Emmy Betz, an assistant professor of emergency medicine at the CU medical school. She also holds a master’s degree in public health.

“There is an association but not a clear cut link,” says Betz, whose interest in the topic stems in part from a suicide in her own family. “There are a lot of other things going on.”

Those other things could include a feeling of isolation that can come with living in rural mountain regions, a lack of access to mental health care, a lingering stigma associated with seeking help, and the higher availability and acceptance of owning firearms, she says.

The study, presented in February at the Western Regional Society for Academic Emergency Medicine conference in Keystone, Colo., examined numerous factors surrounding 9,000 suicide cases during 2006 in 15 states representing low, medium and high altitudes.

Betz says this is the first research to include that level of detail, which leads to some interesting conclusions. For example, for suicides at high altitudes (above 6,500 feet), friends and families of suicide victims more often reported their loved one was depressed, yet the person who committed suicide was less likely to be getting help.

“It suggests that there are high—altitude victims not receiving care,” Betz says.

The study also found that stresses such as job loss, relationship troubles or legal problems were more often contributing factors to suicide at high altitude. Yet those kinds of issues are not necessarily worse in high altitude communities. That leads Betz to suggest that the issue may be lack of a safety net.

The groundbreaking study offers both good and bad news for those involved in combating suicide.

On one hand it may be frustrating for those seeking an easy, clear cause. But on the other hand, because suicide in the West is attributable to factors other than elevation, it is more preventable, says Dr. Holly Hedegaard, director of the Colorado Violent Death Reporting System and one of the lead researchers in the study. The state Department of Public Health also was part of the effort.

“We need to work to remove the stigma [of seeking mental health care] in culturally appropriate ways,” Hedegaard says.

Often people wrongly assume that if a small, rural community is tight-knit, it will be easier for people to rely on their neighbors for help. In truth, though, because everyone knows each other, someone struggling might be embarrassed to get counseling, according to Hedegaard.

Betz acknowledges a certain paradox to their findings. Some of the very things that can make the West desirable, such as the wide open spaces and a tradition of self-reliance, can also contribute to feelings of loneliness and despair in a troubled person.

“It feels like such a waste. Suicide is preventable,” she says. “We’ve come such a long way in mental health care but there’s still a long way to go.”
U.S. global health policy: HIV/AIDS at a crossroads
Initial accomplishments threatened by policy changes
By Anand Reddi

A poster at the July 2010 International AIDS Conference juxtaposes the faces of former President George W. Bush and President Barack Obama with a caption asking “Who’s Better on AIDS?”

The answer to that question remains to be seen.

The global economic recession and the de-emphasis of HIV/AIDS treatment in favor of other global health initiatives threaten to undermine the impressive results achieved thus far by the United States in treating HIV/AIDS in resource-limited settings.

In 2003, Bush authorized the President’s Emergency Plan for AIDS Relief (PEPFAR) with a five-year, $15 billion commitment toward prevention and treatment. In 2008, due to the tremendous success of PEPFAR, Bush and the U.S. Congress reauthorized PEPFAR for an additional five years, allocating $48 billion.

As of September 2010, PEPFAR has provided 3.2 million patients with life-saving antiretroviral treatment, prevented 600,000 babies from contracting HIV and supported the care of 11 million people, including 3.8 million vulnerable children. These impressive results warrant the doubling, or even tripling, of PEPFAR’s budget. Despite these successes, PEPFAR is under attack.

In May 2009, Obama unveiled a new global health initiative. Its architect, Dr. Ezekiel Emanuel, special advisor to Obama for health policy, recommend funding maternal and child health initiatives at the expense of future funding increases for PEPFAR. Emanuel claimed that PEPFAR “is not the best use of international health funding,” and “fails to address many of the developing world’s most serious health issues.”

Unfortunately, the new global health policies of the Obama administration resulted in a retrenchment in promised PEPFAR funding for new patients awaiting HIV treatment in Uganda. In effect, this led to HIV “treatment rationing.”

To challenge the Obama administration’s HIV/AIDS position, I sought to demonstrate that policies that weaken PEPFAR threaten to undermine rather than support maternal and child health in countries with high HIV/AIDS prevalence. I published articles in AIDS and Science as well as opinion pieces in The Huffington Post, The Washington Post and The New York Times to provide an evidence-based critique of the Obama administration’s global health initiative.

My publications contend that the idea that differing global health initiatives must compete with each other lacks not only ethical legitimacy but also scientific merit. Maternal and child health need not be framed in opposition to PEPFAR. Confronting illness in isolation—whether by funding PEPFAR at the expense of programs that target maternal and child health or vice versa—cannot be our way forward. We should be advocating for funding both PEPFAR and maternal and child health initiatives together instead of favoring one program over another.

I received a direct response in The Huffington Post from Emanuel. I hope that my advocacy, along with contributions of others including Archbishop Desmond Tutu, helped convince the Obama administration to recommit the necessary funds ($366 million) to continue antiretroviral scale-up in Uganda.

Global health is the moral litmus test of our time. As former President Bush wrote on World AIDS Day, “A thousand pressing issues come with each day. But there are only a few that you will want to talk about in retirement with your children. The continuing fight against global AIDS is something for which America will be remembered.”

Anand Reddi is a second-year medical student at the University of Colorado School of Medicine. Prior to medical school, he was a Fulbright Scholar assisting the Sinikithemba HIV/AIDS clinic in South Africa. Reddi also served on the board of directors of the AIDS Healthcare Foundation (AHF) from 2009-11. A bibliography of his publications on U.S. global health policy can be read at www.anandreddi.org/usglobalhealthpolicy.
When Andrew Brookens was in Bolivia with the Peace Corps a few years ago, he became close with a local priest, Father Rene Martinez. Martinez was 35 when he died of heart failure caused by Chagas, a disease so common there that 90 percent of the residents of his village are infected.

Brookens, now a fourth year student at the University of Colorado School of Medicine, spent more than six months of this school year in Bolivia fighting the disease by trying to understand barriers to treatment.

“Chagas,” he explains, “killed a good friend of mine.”

One of the top experts on the disease, cardiologist Sheba Meymandi, helped Brookens with the work he’s doing in Bolivia.

“He is bringing more awareness of the disease and more knowledge of how Chagas progresses,” says Meymandi, director of the Center of Excellence for Chagas Disease near Los Angeles.

Brookens grew up in the Denver suburb of Englewood. When his parents talked about his Latino heritage—one side of the family is from Puerto Rico—“that struck a chord,” he says.

After graduating in public policy from Duke, Brookens decided to nourish that heritage by going to a Spanish-speaking country. He joined the Peace Corps and served in Bolivia, where his interest shifted from economic development to health care.

“The family I stayed with had infant twins with chronic eye problems,” Brookens recalls. “One of the older sons had had a donkey accident. They had to hire a truck to get them to a hospital three hours away for antibiotic eye drops and disinfectant for a head wound.”

Back in Colorado, Brookens worked other jobs but kept thinking about the good he might do as a doctor. He came to the CU medical school and began to focus on Chagas.

Chagas, named for the physician who discovered it in 1909, is caused by a parasite called Trypanosoma cruzi. The parasite is carried in the feces of an insect, called a reduviid bug, that inhabits adobe and thatched dwellings common in Central and South America. The bug bites humans, often on the face, giving it the deceptively cute name “the kissing bug.” Chagas hits hard in Bolivia, infecting 4 million people, Brookens says.

Typically, after an initial flu-like reaction or swelling, symptoms disappear, sometimes for life. But lethal problems can emerge such as dilation or rhythm abnormalities of the heart. Meymandi, a professor of medicine at UCLA’s David Geffen School of Medicine, says the disease is spreading in the United States and worldwide.

“Treat it early and it’s better,” she says. “Many blood banks are now testing for it.”

The earlier it’s treated, the better the outcome. Yet only 30 percent of patients in Bolivia diagnosed with Chagas complete treatment, Brookens says.

That intrigued him.

One man, for example, passes out every two weeks from heart damage caused by Chagas. He could get a free pacemaker, Brookens says, but “doesn’t trust having a device in his chest. He has a free solution, but he doesn’t want it.”

“I know how the bug behaves, I know how the drugs work,” he says. “But I don’t know what makes people seek out treatment.”

To find out, Brookens got funding from the Robinson Durst scholarship (through the Colorado School of Public Health’s Center for Global Health) and the American Society of Tropical Medicine and Hygiene. His church, Wellshire Presbyterian, also supported him.

Brookens is surveying people to identify barriers to treatment. Early results suggest that some patients feel they lack time to deal with the disease. Also, many victims distrust Western medicine. Brookens recalls a patient who said he would be fine “because the local healer has already provided me with a pig fetus and herbs.”

But then there’s Martha Aguayo. When her husband developed Chagas symptoms, she had herself and her five children tested too. She and her 12-year-old daughter have Chagas and are being treated.

“This is the type of case where we can stop the progression,” Brookens says. Aguayo now is part of his study. People such as Aguayo—and Brookens—may help save lives.

“If we learn more about behaviors by patients like Ms. Aguayo,” Brookens says, “then we can better target interventions.”

To learn more about Chagas and to see a video about the disease, go to medschool.ucdenver.edu/CUMedToday/profiles.
About 10 minutes into the first practice of 2011, a new soprano holding the score to Mozart’s “Coronation Mass” turns to Christina Bishop and asks: “Is this the point in time to admit that I can’t read music?”

Bishop, choir director of the Anschutz Medical Campus choral group the Arrhythmias, responds with the reassuring smile and equanimity of a four-semester veteran deeply familiar with the challenges of turning a group of overloaded health sciences students into a working choir.

Compared to some issues she’s faced, lack of formal musical experience barely registers as a problem. For example, during her first semester leading the choir, weekly practices started two months late, and only two singers regularly attended leading up to the Christmas concert. “I was doubtful we could even get a core,” she says.

The next year, she was suddenly short of tenors. “So Christina had a couple of altos switch over,” says her husband, Nick Bishop, a third-year MD/PhD student and outgoing Arrhythmias president.

Nursing and pharmacy students are often scheduled for clinical rotations at the last minute and suddenly can’t participate. “One girl who was practicing with us last fall and who was helping us with publicity for the Christmas concert—she did so much work—was scheduled for clinicals two weeks before the concert and couldn’t sing,” says Nick Bishop, a natural tenor who’s been called upon in a pinch to sing bass.

As challenging as all this sounds, the Arrhythmias have been a successful venture since 2005. Initially founded as a musical outlet just for medical students, the choir now accepts students, staff and faculty from all health sciences fields on campus and performs twice a semester. (The next concert is early May at the annual Anatomical Donor Memorial.)

The Bishops got involved in 2009 after Nick Bishop learned about the Arrhythmias while touring campus as a prospective student. But when he arrived for fall semester, no one seemed to know about them. It wasn’t until October that he was able to find a member of the group—which had not begun practicing for Christmas. Nick Bishop helped restart the Arrhythmias and was able to offer something that the choir had never had before: a professional director, who also happened to be his wife.

Christina Bishop, who has a degree in K–12 musical education and a master’s of music in choral conducting from Brigham Young University, has provided the consistency, stability and vision that the group previously lacked.

“I can’t tell you enough how glad I am that you are here,” alto Jenn Symonds said to Christina Bishop one night after practice. Symonds, a fourth-year PhD candidate in the Reyland Lab, Department of Pathology, remembers that before Christina Bishop’s arrival directors were selected from within the choir. Usually, experience was negligible.

Christina Bishop’s latest initiative is performing with Melomania, the campus orchestral group.

And after that?

“I’d like to perform a benefit concert for a hospital featuring a multi-movement work. And maybe someday we could have scholarships for members,” she says. “I do like a challenge.”
Brad Nieder, a pleasant-looking young doctor in suit and tie, takes the stage before a crowd of 2,000 at a medical convention in Orlando. The topic is how laughter is the best medicine.

Nieder launches a tale of his health care softball team going to the championship and how he painfully dislocates his shoulder while sliding into a base during a game. Then, he nails it. “Turns out, folks,” he says, eyes twinkling, “Percocet is the best medicine. Laughter is like the fifth or sixth best medicine.”

The crowd roars. Then he tells how his team ultimately lost to a bunch of ophthalmologists who kept shouting “Good eye!” to the batters.

Nieder's amiable style is reminiscent of early Jerry Seinfeld, with sharp timing and the element of surprise. Just when you think you know where a gag is going, it veers into the unexpected. Nieder knows a thing or two about veering.

Growing up the son of a doctor in the Denver suburbs, Nieder had a childhood free of the demons with which many funny men wrestle. He studied comedians on TV, taping favorites like David Letterman and Howie Mandel. As an undergrad at Stanford University, he was a founding member of the improv group the Simps.

But then college graduation loomed and he had to pick a path. Medicine was a practical decision. His parents would be pleased, he could make a good living and he would be helping others. Still, early on at the University of Colorado School of Medicine, he noticed that he just wasn't as consumed with medicine as were some of his classmates. At night he hit the Denver comedy clubs, doing stand-up comedy on open microphone nights.

Nieder confessed his doubts to Dr. John Repine, associate dean for student advocacy. Repine, a professor of medicine, pediatrics and surgery, reassured him that it was OK to have other talents and interests. Often, Repine said, that made for better doctoring. “Keep going,” Repine remembers saying, encouraging him to continue in medical school and explore comedy on the side. Nieder recalls that Repine also told him he was “riding two horses” and advised, “don’t give up your other horse.”

Nieder graduated from CU medical school in 2000 and began a residency in emergency medicine in Richmond, Va. There was no time for comedy. After completing his internship and earning his general practitioner license, Nieder veered. He decided not to continue with emergency medicine—to the dismay of his parents, fiancée (now wife) and most everyone he knew.

One exception was Scott Friedman, a motivational humorist and longtime friend from Denver. Friedman urged Nieder to use his medical degree and comedic talent to carve out a niche as a speaker who mixed health advice with humor.

Nieder branded himself “The Healthy Humorist.” He is thought to be the only licensed doctor in the country doing convention comedy full-time.

It wasn’t always glamorous.

In January 2003 Nieder debuted in the back room of a Macaroni Grill at a breakfast meeting of the Cherry Creek Rotary Club. Payment was free food and a Rotary coffee mug. Today Nieder is steadily booked around the country, logging more than 40 appearances a year. He is married and has two young children.

“Initially it was scary. It was not the safe path,” admits his wife, Sara. “But he is so blessed to have found something he loves. Any doubt has turned into admiration.”

Tucked into every performance is the science that shows how a good belly laugh can reduce stress and lessen pain. “And there are always some wellness tips, too, like the reminder that crooning ‘Happy Birthday’ while washing your hands ensures you’ve scrubbed long enough. “I’m a germaphobe, though,” Nieder says, “so I always sing ‘The Wreck of The Edmund Fitzgerald’ It’s like 10 minutes long. So it’s a bit odd in public restrooms. I get a lot of strange looks. But I’m always very clean!”

As he closes each performance he discloses he doesn’t see patients. But that doesn’t mean he’s left medicine.

“To see video of Brad Nieder performing, go to med-school.ucdenver.edu/CUMedToday/profiles.
May 25–28, 2011
Honoring the graduates of the class years ending in 6 or 1.

The Office of Alumni Relations is planning an exciting week of activities. For more information or to register, call us at 303-724-2518, e-mail us at healthalumni@ucdenver.edu or check our website, www.ucdenver.edu/alumni.

SCHEDULE OF EVENTS

WEDNESDAY, MAY 25
5 p.m. Welcome Reception with an introduction by Lilly Marks, vice president for Health Affairs and executive vice chancellor for University of Colorado Denver, Research Complex 2 Quad, Anschutz Medical Campus, $25 per person

THURSDAY, MAY 26
8 a.m.—10:30 a.m. All-Class Breakfast and dean’s state-of-the-school address, Research Complex 2, Anschutz Medical Campus, $15 per person
12:30 p.m. Lunch and tour of the Anschutz Medical Campus, departure from the front of Building 500, $10 per person
4 p.m. Invesco Field Stadium tours, Invesco Field at Mile High, departure from the lobby inside Gate 7, no charge
5:30 p.m. Silver & Gold Banquet, Invesco Field at Mile High, $75 per person

FRIDAY, MAY 27
10:30 a.m.—12:30 p.m. School of Medicine Convocation, Hooding and Oath Ceremony, Education Quad, Anschutz Medical Campus, no charge
12:30 p.m.—2:30 p.m. 1883 Society luncheon, Research Complex 2, Anschutz Medical Campus, $10 per person
2 p.m. Denver Museum of Nature and Science featuring Egyptian mummies and Expedition Health, $10 per person

SATURDAY, MAY 28
Individual Class Activities
Class of 1946—5:30 p.m. Dinner at the Wellshire Inn, $40 per person
Class of 1951—5:30 p.m. Dinner at the Wellshire Inn, $40 per person
Class of 1956—5:30 p.m. Dinner at the Wellshire Inn, $40 per person
Class of 1991—5 p.m. Dinner at Foge De Chao, Lower Downtown Denver, $55 per person
Class of 1996—5 p.m. Dinner at Foge De Chao, Lower Downtown Denver, $55 per person
Class of 2001—5 p.m. Dinner at Foge De Chao, Lower Downtown Denver, $55 per person
Class of 2006—5 p.m. Dinner at Foge De Chao, Lower Downtown Denver, $55 per person

2011 Medical Alumni Association Awards
Silver and Gold Award—Stephen W. Nicholas, MD ‘81
Distinguished Service Award—William Maniatis, MD ‘65
Distinguished Achievement Award—John DeLauro, MD ‘62
President’s message

Dear alumni and friends,

In an era when medicine is regarded by some as a simple commodity, and physicians regarded as just another niche in the “workforce,” it is important to reclaim the unique honor of our profession as an area of knowledge dedicated to service.

Hundreds of students at our institution represent the continuation of those ideals of the medical profession and, through their hard work and dedication, continue the tradition of medicine in an era of uncertainty of funding, yet certainty of human need.

Many of the current students have heard friends, family and physicians ask them the troublesome yet sincere question: “Why would you want to go into medicine now, with all the changes and uncertainties? There are so many changes, and it’s not like it used to be.”

That’s certainly true. The chaos of compensation exists in a time when new treatments continue to amaze while they heal, where medications are targeted more and more narrowly, with fewer side effects, and where imaging modalities continue to advance, providing almost unbelievable detail and contributing to better clinical decisions. No, medicine isn’t like it used to be; in some ways, it’s better.

Later this month the classes from years ending in 1 and 6 will have the opportunity to gather, celebrate, remember and support the newest group of doctors, the Class of 2011. If your schedule permits, join us; just your presence provides support and encouragement to new and old graduates.

Every alumnus and alumna has the opportunity to support in some way the future physicians from CU—whether through precepting, donating to scholarships and stethoscopes, joining in various medical school celebrations or contributing in countless other ways. Supporting the institution and supporting the profession of medicine are important ways we can support current and future patients as well.

Sincerely,

Gary Grasmick, MD ’98

---

MEDICAL ALUMNI ASSOCIATION

The School of Medicine Medical Alumni Association

membership dues structure is changing.

The School of Medicine and the Medical Alumni Association (MAA) want to show their appreciation to all alumni by including everyone in the alumni association. Beginning this year, all alumni of the School of Medicine will be considered a member of the Medical Alumni Association.

Instead of a dues-based membership, Dean Richard Krugman has approved a new membership structure that is no longer based on dues. The MAA will provide various benefits to alumni based on their current and continuous donations to specific School of Medicine and MAA related funds, such as the School of Medicine Diversity Scholarships #0222251, Medical Alumni Association Stethoscope Fund #0222041, and various class funds. For a complete list of funds related to the new membership initiative, please visit medschool.ucdenver.edu/alumnimembership.

There will be various membership types based on a monetary giving scale in the current year. The tiered levels and their associated benefits are:

<table>
<thead>
<tr>
<th>Membership Type</th>
<th>Donation Level</th>
<th>Membership Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Student</td>
<td>$0 (students only)</td>
<td>Membership benefits packet distributed at orientation and invitations to participate in alumni sponsored student events and programs</td>
</tr>
<tr>
<td>White Coat Member</td>
<td>$0–$99</td>
<td>CU Medicine Today</td>
</tr>
<tr>
<td>Stethoscope Society</td>
<td>$100–$249</td>
<td>Above, plus membership benefits and CU football game event</td>
</tr>
<tr>
<td>Century Club</td>
<td>$250–$499</td>
<td>Above, plus 2 tickets to the Century Club cocktail reception</td>
</tr>
<tr>
<td>Faculty Ambassador</td>
<td>$500–$999</td>
<td>Above, plus an Anschutz Medical Campus tour event</td>
</tr>
<tr>
<td>Dean’s Circle</td>
<td>$1000+</td>
<td>Above, plus the Dean’s Circle dinner and 2 tickets to the Silver and Gold Banquet</td>
</tr>
</tbody>
</table>

One goal of this membership model is to support the medical school and the MAA by encouraging alumni to begin or continue donating, and to reward them in new ways for their gifts. This approach also seeks to strengthen connections among alumni, the association and the medical school.

Membership benefit packets will be sent to alumni donors each month following receipt of donation and will be good for one year. If you have made a donation of $100 or more to any of the listed funds since July 2010 you should have already received your membership benefits packet that explains the new membership structure and includes your membership card. More information on the new membership structure can be found at medschool.ucdenver.edu/alumnimembership or by contacting the Office of Alumni Relations at (303) 724-2518 or healthalumni@ucdenver.edu.
When I did my OB/GYN residency in Bombay, India, I took care of an unmarried, pregnant 19-year-old girl. I thought to myself, “Why is this young woman pregnant and single?” Culturally, it was not acceptable. Then one day I made a comment about her to a nurse. The nurse said, “Do you know her story?” This woman had been working in an upscale home as a maid, helping support her family. The husband of the family that employed her had raped her.

I tell this to my students because it shows I was judgmental. This young woman helped me come to understand that every patient has a story. It is our job to hear that story—and to be clear about our own story—so we can be more effective as health care providers.

This is embodied in the CU School of Medicine as “culturally effective medicine.” It is a four-year thread, woven into courses throughout the curriculum.

Culturally effective medicine is not just about race and ethnicity; it is about effective health outcomes. Our students and our doctors need to understand that if you see the perspective of a patient, you will be able to communicate better and deliver more effective health care.

When you appreciate and respect differences, two things happen. First, when you say you and the patient may be different you acknowledge the elephant in the room. Second, by doing so, you decrease the “power dynamic” between patient and doctor. It mirrors the broader trend toward patient-centered medicine.

For example, with my teenage patients, I may say, “I respect that you have asthma and you choose to smoke weed. I respect that you told me this. But you have to respect that I will remind you at every visit about its effect on your health.”

I take a direct approach when broaching topics with teens. Using the patient-centered strategies of culturally effective medicine, I convey my medical opinion in a way that can be understood given the teen’s worldview. So I have told my adolescent patients, “If you use a condom or not, I get the same salary. If you don’t use it, you have consequences. That doesn’t make me a bad doctor, and if you do use a condom it doesn’t make me a good doctor.”

By the way, when I began directing culturally effective medicine for the school three years ago, it was called “cultural competency.” That label implied that you are either competent or incompetent. But this approach is a lifelong journey in providing effective health care, so we changed the name.

Living in cultures different from my own has helped shape my belief in this approach to medicine. My family is from Kashmir, India, but I grew up and went to college and medical school in Bombay (now Mumbai). I was in the cultural and linguistic minority. As a chief resident, I was the only male in a department with 20 women. From India I moved to a small practice in a rural area of the Sultanate of Oman. I had to learn a new culture and language. There I was called a tabib, but whatever word for doctor is used, respect and caring transcends language and religion.

Still, there are barriers to teaching medicine with this emphasis on cultural effectiveness. It is seen as a soft science. My goal, therefore, is to quantify that it makes a difference. And we are doing that. Over three years we have shown improvements in outcomes and attitude.

Do students sometimes resist this approach? Sure. But then they see the clinical relevance of it; they understand that for them to become good doctors, they have to understand the importance of cultural effectiveness.

What will help make for a great doctor is paying attention to the patient and being straight with them. I believe that is true whether practicing in Boulder … or in Bombay, treating a pregnant woman whose story you really need to know.

Paritosh Kaul, an associate professor of pediatrics, is director of culturally effective medicine at the University of Colorado School of Medicine. Please submit your essays for future editions to Dan.Meyers@ucdenver.edu.
Read all about it … online

As we continue to improve CU Medicine Today, we're using the web more and more. It's a way to offer additional information -- words, videos, links -- than the printed version can hold. So, many of the stories now have a link at the bottom and on page 8 you'll see short “teasers” to two stories that are presented in full online. The School of Medicine website (medschool.ucdenver.edu) also allows us to offer the entire magazine digitally in two forms, one designed for online reading and the other a page-by-page reproduction of the print version. This, by the way, has helped us increase readership without increasing costs. For the fall edition, more than 5,000 people visited the magazine online, a fivefold increase from the previous spring. As we did last edition, we’re asking how you prefer to get the magazine—paper or web? Please, if you haven’t done it before, fill out the brief survey at the bottom left of the magazine’s home page, which is medschool.ucdenver.edu/CUMedToday.

Thanks,

Dan Meyers
Communications Director
University of Colorado School of Medicine
Dan.Meyers@ucdenver.edu

CU Medicine Today is trying out some new technology in this edition. If you are gadget-minded, see what you think. On page 8, we put two red bar codes the size of postage stamps where you can scan your way to online content. This is done through what’s called a QR Code, a readable barcode for a mobile device such as an iPad, tablet or smartphone. The code allows you to access online content from printed material. Using bar code scanner software on your mobile device, simply point it at the QR Code and it will take you directly to the online content. QR Code software can be located at the App Store, Blackberry App World, the Android Market Place or on the web.
There was a nice moment a few months ago on the Anschutz Medical Campus when Martha Diss Sundby met Stephen Wills. Sundby established a scholarship to honor her sister, the late Eleanor Sabin, MD, who died in 2009. And Wills? He’s one of two students interested in rural medicine who received that scholarship support this year. He and Sundby met at a donor appreciation luncheon. Students such as Wills say this kind of support makes a big difference not just in their finances but in how they look at medicine. “You’re not just in it for yourself,” he says, “but for the people who believe in the same goals.”

The students, faculty and staff of the School of Medicine appreciate the alumni and others whose support is vital to the institution – and to aspiring doctors such as Stephen Wills.

For more information go to www.ucdenver.edu/alumni.