

A GRASSROOTS STUDENT INITIATIVE ALLIES WITH THE MEDICAL SCHOOL TO ORGANIZE INTERNATIONAL EXPERIENCES THAT GIVE STUDYING MEDICINE AT MICHIGAN A

# Global REACH

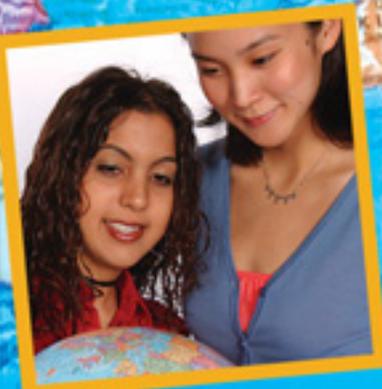
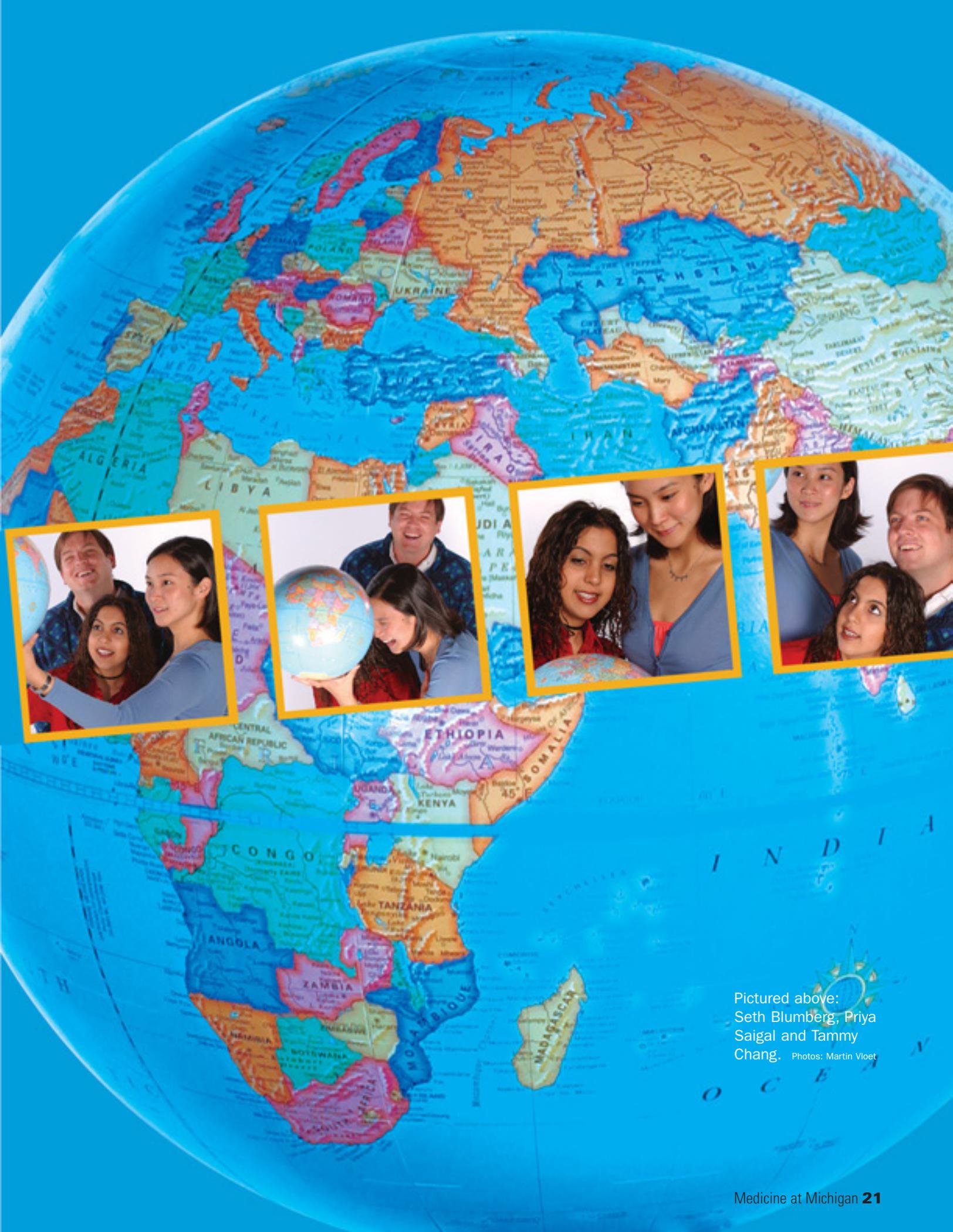
BY JEFF MORTIMER

In the last four years, University of Michigan medical students have opened clinics in the Dominican Republic, performed surgery in Honduras, worked with HIV/AIDS victims in Thailand and Ghana, and immersed themselves in the Cuban health care system. They've also led teams overseas that have included undergraduates, students in engineering, public health, and social work, as well as physicians and faculty members, in an attempt to address the cultural and societal issues that have an impact on health care.

Why are they so involved in international experiences? Because they believe it will make them better physicians, and the world a better place.

This is no mere starry-eyed notion. The burgeoning number of U-M Medical School students who have organized and participated in overseas projects universally describe those experiences as transformative, and the school itself is recognizing and supporting their efforts through the Student Alliance for Global REACH, launched last fall as the institutional response to a growing and increasingly visible trend. Call it the "trickle up" effect.

Global REACH (Research, Education and Collaboration in Health) is itself a four-year-old Medical School initiative that focuses on increasing educational exchanges among students and faculty, facilitating international research collaborations, conducting its own international research, and providing opportunities for visiting scholars to benefit from Michigan expertise. ▶



Pictured above:  
Seth Blumberg, Priya  
Saigal and Tammy  
Chang. Photos: Martin Vloet

In 2004, Global REACH and the growing cadre of internationally active first- and second-year medical students found each other — and there's been no looking back since.

Students were looking for a way to expand international health opportunities, while at the same time avoiding “reinventing the wheel” with each new academic year and new entering cohort of students. And Global REACH was well-positioned to help students work within the parameters of the institution to facilitate such things as fund raising, identifying opportunities, lunchtime lectures, and evening symposia. Hence, the Student Alliance for Global REACH was born.

With an appointed executive board, regular meetings, and an official liaison with the Global REACH office, the Student Alliance has created a framework that students hope will sustain and facilitate international activities over time.

Priya Saigal, a second-year student from South Barrington, Illinois, and one of the students who was instrumental in the early days of the Student Alliance, says they were excited at the prospect of combining forces with a formal organization that was already in place. “We realized that we had a chance to form a sustained effort, rather than year-by-year.”

“It was a wonderful confluence of events,” says Cheryl Moyer, research

director and senior research associate at Global REACH. “Just as student interest was taking off, we were in a position to be of help. And that's very gratifying.”

When it came to extending the program's reach to facilitating such student sojourns, David Stern, M.D., Ph.D., director of Global REACH and an associate professor in the departments of Internal Medicine and Medical Education, was an easy sell. He had seen the explosion for himself.

“There's an overwhelming interest on the part of our medical students — and, more and more, also our residents — to engage in international work,” Stern says. “Three years ago I gave a lecture to

Photo: Marie Frost



David Higgs, Sarah Battistich, Derek Richardson and Ann Poznanski discuss their Global REACH experiences.



Global REACH's David Stern and Cheryl Moyer

medical students about how to do international work, and 20 or 30 people showed up. The last time we had a luncheon seminar on international opportunities, 120 people came. The medical students see global health as a leading issue in their lifetime as physicians.”

“I’m guessing that over half of our first-year medical students, at the end of this summer, will have had some international experience,” says Moyer. “The difference between three years ago and today is stunning.”

The students themselves laid the foundation, not only by envisioning and organizing their trips, but also by funding them through bake sales, shoveling driveways, finding sponsors and, often, dipping into their own resources.

“This was all outside their regular first- and second-year curriculum,” says Moyer. “This was on their lunch hour. The energy level was incredible, but there was no formal link with the administration.

“Now we’re helping students work within the system for maximum benefit,” she says. “We do as much as we can to support them financially and logistically, understanding there may never be enough money to support all of their activities.”

“We put so much work into the trips that was just getting lost and having to be renewed and recycled every year,” says Sarah Battistich, a second-year student from Tracy, California. “Now with the central office, a lot of groundwork has been laid that people can build on.”

“I saw first-hand how **community efforts can help people deal with various challenges and setbacks**, so I was eager to take that lesson and do something positive.”

—MSTP student Seth Blumberg

That groundwork is the result of the work of countless students, including many who may never directly benefit from the framework they helped establish. Battistich, Saigal and Seth Blumberg, who is in the Medical Scientist Training Program and will soon finish his Ph.D. in biophysics before returning to medical school, are prime examples. Unlike Saigal and Battistich, Blumberg hasn’t taken part in an overseas medical mission, but his motives and passion for the work fit the profile.

As an engineering and applied science major at the California Institute of Technology, he began to seriously consider medicine as a career only after he had to take a year off for cancer treatment. But, as with many of his colleagues in what could fairly be described as a movement, Blumberg was thinking more globally than locally. “As a cancer patient, I discovered I was on the receiving end of a lot of community service efforts,” he says. “I was really blown away by the generosity of the community, and very appreciative too. I saw first-hand how community efforts can help people deal with various challenges and setbacks, so I was eager to take that lesson and do something positive. The purpose rather than the process became more important for me.”

As an undergraduate, he worked on a Navajo reservation in New Mexico. In his first year as a doctoral student, he tutored at-risk youth and worked with drug addicts in Philadelphia’s inner city. As a first-year medical student, he traveled with a group of other students to help out in a foster care program in St. Louis.

And, as a visitor to his parents’ native South Africa, he had also seen the international dimension of unmet needs. “Those visits left quite an imprint on me in terms of seeing the large scale of poverty,” he says. “Visiting the Soweto Township in Johannesburg and seeing a disparity of living conditions that was astronomical — then comparing that to how we live in the United States.

“All those experiences gave me a sense of the degree of inequality in access to all sorts of necessities, including housing and food as well as health care,” says Blumberg, “and made me want to do what I could to help balance the field a little bit.” For now, he’s trying to balance the field on the home front, working ►

with Global REACH program director Kate Durand and fellow students David Lessens and Jason Cheng on ways to redistribute unused medical supplies to the places and people who need them.

“We want to partner with World Medical Relief, a nonprofit based in Detroit that picks up supplies and sends them to various international groups,” Blumberg says. “Then we want to work with faculty and staff to increase awareness of what kind of supplies can be used, and hopefully encourage better conservation and increase our ability to help international projects. Another element is to set up a way for Michigan groups, either students or faculty who are doing medical missions, to get access to supplies they need to support their trips.” Blumberg says future goals of the Student Alliance also include alumni involvement, increasing collaboration between students and faculty, and community outreach programs on international health such as high school presentations and campus-wide symposiums.

One of the students who was instrumental in building the global bandwagon is Tammy Chang, of Flint, who is now in her third year of medical school, after taking a year off to pursue a master’s in public health. She was a principal organizer of student trips to Cuba in 2003 and 2004 as well as one this spring to the Dominican Republic, and was the founder of Health in Action, a campus-wide, student-run organization that is now under the umbrella of the Student Alliance for Global REACH.

“When I entered medicine, I wasn’t really in the mind-set of becoming a researcher or someone who would focus specifically on one topic,” she says. “The very soul of why I went to medical school was that I felt passionate about using all the things I learned to help as many people as possible. In medical school, they train you very well to take care of each individual patient, but I felt the need to do more than that. We need people who are excited about basic science and the treatment of each patient individually but, for me, what would use my skills the best is to work on the level of population and community.”

That requires teamwork, a leitmotif of international ventures.

“It’s all about doctors working with politicians, economists, public health people, engineers and local community lead-



A 45-minute very steep, very rocky walk from Rancho al Medio, Dominican Republic (where Global REACH is based during their visits), ends at one of the main water sources for people in the community. Here, Global REACH students (including Tammy Chang) and members of Manos A Tiempo (top right corner) look on as a mother washes clothes (top, center) and a girl cools herself by taking a dip (foreground). Two boys (bottom right) fill oil cans, cooking oil containers and buckets with water to carry back home, a daily necessity for the community during the warmest part of the year.

ers; that’s how changes happen,” Chang says. “Doctors aren’t used to working on teams. Throughout their entire training, they have to depend on themselves, and I think that really holds us back in what we can do as a profession.”

Chang is decidedly not one to be held back, and Health in Action’s roster of students in engineering, social work and public health, in addition to medicine, shows that she follows her own advice.

“We have a long-term collaboration with Manos A Tiempo (Hands on Time), a nonprofit in the Dominican Republic with the objective of helping developing areas there help themselves and make themselves sustainable,” she says. Making a community “a healthy place for kids to grow up” entails a long-term commitment to long-term solutions.

“A lot of medical missions are there for only one week. What can you really do in one week?” asks Chang. “Cure everyone? Make the illiterate literate? Some people think we’re naive, going on a little vacation and patting ourselves on the back. That is absolutely not the case.

“We do focus on things that can be taken care of in one or two visits — infections or parasites. But, most importantly, we teach people how to not get those illnesses. If they’re having constipation, we don’t give them laxatives. We tell them about foods in their own community that they can eat that will alleviate a lot of their symptoms. We can’t really treat the hypertension, so we work hard to form collaborations with local hospitals and clinics, so those long-term chronic diseases can be treated by local physicians. We try to be the glue, really.”

Students are quick to point out that these ventures are mutually beneficial. They believe they gain as much in educational value as they give in services. “Our purpose for the trip to Cuba is not to necessarily heal or cure,” says Battistich. “We go more as learners and partners in collaboration. Although we work very hard obtaining donations of drugs and medical supplies, our intent is not to be saviors or healers. This is a critical difference between many ‘med-

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—David Stern, director of Global REACH

See more photos at [www.medicineatmichigan.org/magazine](http://www.medicineatmichigan.org/magazine).



Left: Sarah Battistich, Priya Saigal (front row, second and fifth from left) and other members of Global REACH gather around the supplies they’ve brought to donate to a pediatric hospital in Havana, Cuba.

Below, left: Two girls in the Dominican Republic take a recess break following a literacy program led by Tammy Chang and the Global REACH team. Chang says, “These girls were inseparable. They were about to show us their dance routine to a current pop song.”

Below, center: Sarah Battistich administers a steroid shot to a patient suffering from a swollen wrist that prevented him from working. Global REACH students often provide care in makeshift clinics during their travels; this one is located inside a school house in the Dominican Republic.

Below, right: Ann Poznanski shares a gift — a set of Lisa Frank colored pencils — with some new friends at a clinic in Guatemala.



ical mission’ trips and what we are attempting to establish here at the University of Michigan. I believe the primary goal is to move beyond both medical tourism and the idea that we as U.S. physicians can drop in for a week in some remote part of the world and create real, lasting change. Instead, what is important is to establish persevering connections that empower local resources and communities as well as utilize the resources we have to offer. In the end, it is only these types of enduring relationships that will garner real change in the world.”

Humility isn’t all they learn, and the lessons seem important enough to warrant

the occasional shuffling of class and exam schedules that the trips necessitate. Says Moyer: “Having fewer resources and making do with what you have forces a degree of thinking on your feet, which is not as much of an issue here where you have all the tests, treatments and supplies you could ever need. One resident talked of being in a tent in Honduras and needing a Foley Catheter and using an empty IV bag instead — which worked perfectly. Such resourcefulness is a valuable lesson for students.”

Derek Richardson, a second-year student from Ann Arbor and a member of the Student Alliance board, spent last summer in Ghana working on an HIV

therapy study led by Tim Johnson, M.D. (Residency 1979), chair of Obstetrics and Gynecology. “There’s a lot to be learned from Ghana and other developing countries that have working health care systems without spending as much as we do,” he says. “Expensive treatments are good but they need to be carefully measured. All the doctors in Ghana are very aware of how much money the hospital has, and they have more of a public-health approach to medicine.

“There’s a lot of talk of universal health care here,” Richardson says, “but if America is going to cover 45 million uninsured people, there will need to be some steps up in cost management.” ►

# Two-Way Street

INTERNATIONAL EXPERIENCES ALSO BRING STUDENTS FROM FOREIGN COUNTRIES TO TRAIN AT THE U-M

Will a Pacific Islander develop a more effective cholera vaccine? Will a Caribbean learn how to regulate immune responses to dengue? Will an Eastern European discover a better tuberculosis drug?

Will an African cure AIDS?

Programs like the Michigan Infectious Disease International Scholars (MIDIS) could help answer those questions. The program provides basic biomedical research training to students from disease-endemic nations — students whose personal convictions and experiences make them unusually dedicated to the war on infectious disease.



Photo: Courtesy Alice Telesnitsky

Clement Ndongmo

The MIDIS program, headed by Alice Telesnitsky, Ph.D., associate professor of microbiology and immunology, has hosted researchers from all over the world. Clement Ndongmo, for example, was born in Cameroon and graduated from the University of Yaounde in biological science, then embarked on a career as a medical laboratory scientist investigating HIV/AIDS. After graduate work at the University of Oslo in Norway and a fellowship at the Centers for Disease Control, Ndongmo came to the U-M as part of the international scholars program. “I joined the Telesnitsky lab to study how these recombinant viruses are generated in single cycle as well as spreading infection recombination assays,” Ndongmo says. “I’m particularly interested in non-homologous recombination by transduction of cellular genes.

“The people in the lab are friendly and interactive, creating an environment very conducive to good, productive science,” he says. “The opportunity to work at Michigan is extremely rewarding.”

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For more information on MIDIS, visit [www.umich.edu/~midis](http://www.umich.edu/~midis).

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—medical student Sarah Battistich

“One of the most incredible parts of having international medical experience is realizing how resourceful people can be with very little,” says Ann Poznanski, a first-year student originally from Birmingham, Michigan. Poznanski was an associate professor of histology, embryology and anatomy at a medical college in Arizona when she was inspired to become a physician after taking part in a series of medical missions to Guatemala, first as a translator and then as co-director of the program.

“International health experiences are going to make us more conscious of being able to use the resources that we have and maybe fine-tune our clinical skills in a way that’s less reliant on technology,” Poznanski says. “It’s sort of a temptation to want to use the toys, and they are very cool toys, but physicians need to be educated about how to be more resourceful and cost-conscious.”

In an ever-shrinking world, where people — and diseases — travel as fast as jets can carry them, familiarity with other cultures is increasingly invaluable. “We can’t make a clear-cut distinction between cultures anymore,” says Saigal. “There’s a lot of world travel, there’s a lot of exchange of ideas, beliefs, practices. The U.S. is probably the world’s largest melting pot in terms of variety of cultures, and I think in order to provide the best care for our patients in the U.S., it’s very important to understand some of the cultural intricacies. And I believe the best time to develop these skills is during the medical training process.”

Says Stern: “Some of these students will continue to do international work, but I believe that even if they practice the rest of their lives in Ann Arbor, they will practice better medicine because of the time they’ve been away on these missions.”

**W**hether it predates or results from their times away, students with international interests put the practice of medicine in the context of communal ends, perceiving it as a player rather than a panacea.

“Medicine is definitely one small piece among economics, public health and social work,” says Richardson, whose team in Ghana included both undergraduates and a public health student. “It’s good training even for our careers in America,” he says. “There needs to be a lot more communication among all these different fields. It’s a whole new perspective on how to confront a lot of issues that are going to happen in America soon.”

Saigal’s self-designed undergraduate major at Duke was in public health and international development, and she also taught a course there on “the integration of public health and medicine, where they have their boundaries and turf wars as well as where they can collaborate,” she says. “The U.S. spends more per capita than any other nation in the world on health care. One of the biggest reasons why, I feel, is that there aren’t enough physicians that are involved in social change and health policy.”

David Higgs, a first-year medical student from San Diego, will be in Santiago, Chile, this summer to work on an iron deficiency project. (See “Painstaking Research Reveals Long-Term Impact on Infant Iron Deficiency,” *Medicine at Michigan*, Winter 2001.) He says he chose Michigan in part because of its School of Public Health, where he plans to earn a master’s in nutrition.

“International opportunities create an awareness and appreciation not only of cultural differences, but also of the importance of public health in medicine,” Higgs says. “I think a lot of med-

ical students are more interested in public health than they think. Until I applied to medical school, I thought a degree in public health was used only in hospital administration. Students on any one of these foreign trips bring home an understanding of how broad and critical the field really is, and with it a stronger desire to help. In my opinion, this realization is otherwise very difficult to come by. For this reason, ideally I’d like to see some form of international experience eventually become a mandatory part of the curriculum.”

The vast majority of overseas trip participants are first- and second-year students. As Blumberg notes, “Once they become third-years, they’re totally overwhelmed with clinical responsibilities.” But for fourth-year students, Global REACH awarded 34 \$1,000 scholarships this year for international clinical rotations, up from 10 a year ago.

“It may only pay for the airfare,” says Stern, “but the idea behind it is that these experiences help students understand what it means to be a doctor. When they see the way health care is practiced in other countries, especially if they go to developing or Third World nations, they get a greater appreciation for the responsibilities of the physician and the impact medicine can have in the lives of people.

“Michigan as a university has always been outward thinking,” Stern adds. “The Peace Corps started on the steps of the Michigan Union. Global REACH shows that the Medical School and the Health System are awakening to the realization that, whether we’ve known it or not, we’re a global player, and that we have potential resources and opportunities internationally. Other schools within the university have been out there engaging in global action and cooperation for years. It’s time for us to step up to the plate and be a part of that.” 