Innovative Medical Education Starts with Philanthropy

When accepted into the Cleveland Clinic Lerner College of Medicine, Bryan Sisk never imagined that he would become part of a research team working to develop the world’s first breast cancer vaccine.

Now a third-year student, he is conducting research in the lab of Vincent Tuohy, PhD, where he is excited to work side-by-side with scientists who may be on the brink of a major medical breakthrough.

“In wanted to go into a program that could support my being the best clinician and physician researcher I could be,” he says. “This program teaches you how to think, how to research, and provides wonderful clinical training.”

Some of his fellow students also are applying their new knowledge and skills beyond the classroom.

While volunteering at a medical clinic in the town of Lamay, Peru, Lerner College of Medicine student Rachel Roth prepared to remove stitches from the leg of a woman impaled by a bull.

Squatting on the floor before a patient seated in a dentistry chair, she worked by the natural light from an open doorway and a penlight. On finishing, lacking a source of safe, running water, she cleaned up with iodine and alcohol before seeing her next patient. Under these conditions, she and the rest of the volunteer team provided basic medical care for more than 800 patients in one month.

Ms. Roth, who initiated the trip as a school elective, and fellow Lerner College of Medicine students Anna Brady, Jacqueline Chu, Alida Gertz, and Satoko Kanahara prepared for over a year, learning Spanish, acquiring supplies and recruiting physicians and other medical students to join them.
Alumni Library Supported by Physicians and Friends

The first Cleveland Clinic library, established in 1921, was significantly enhanced in 1947 with a philanthropic endowment in memory of Edward C. Daoust, Cleveland Clinic President and Chief Administrative Officer, who died in a plane crash.

“Because he was especially fond of books and had a magnificent library of his own, it seems the most fitting memorial we could create in his name,” contributors wrote. The endowment still generates income for the library.

In April 1999, a $5 million gift from Cleveland Clinic alumni pledged over three years and paid off early, allowed the library to move from its location in the former education building, which was built with philanthropic support in the 1960s, to the third and fourth floors of the Education wing of the Lerner Research Institute. The 30,000-square-foot library, six times the size of the original, was dedicated and renamed the Alumni Library in recognition of its benefactors. In addition to its extensive collection of older print journals, the Alumni Library subscribes to “tens of thousands” of online journals, says Gretchen Hallerberg, Alumni Library Director.

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Training physician-investigators

Founded in 2002 in a historic partnership with Case Western Reserve University, the Lerner College of Medicine was launched with a major gift from philanthropists Alfred and Norma Lerner. Its goal is to train physician-investigators — self-directed learners, innovative researchers and physicians whose work will lead to medical advances.

This approach will help address a serious shortage of practicing physicians who conduct research, a problem highlighted at scientific conferences, in medical journals and by organizations that fund research, including the National Institutes of Health.

“It is critical to have physicians involved in research and interacting with patients from day one so that the research can be translated directly into patient care, and observations from patient care provide insights for research,” says Alan L. Hull, MD, PhD, Associate Dean for Curricular Affairs, Director of the Center for Medical Education Research and Development and holder of the Jones Day Endowed Chair in Medical Education.

Lerner College of Medicine students have published articles in national scientific journal articles and textbook chapters. Students’ abstracts and posters have been accepted for national and international scientific conferences, where they also have presented their findings. Some current research projects concern detecting signs and severity of asthma before symptoms appear, robotic surgery for mitral valve repair and the function of a gene associated with an eye disease that leads to blindness.
The Lerner College of Medicine offers full-tuition scholarships, eliminating the need for hefty student loans and helping to attract the best-qualified medical school applicants from around the country. Currently, tuition is supported in part through philanthropy, but mainly through Cleveland Clinic's operational funds. One of the college's goals is full philanthropic support for tuition.

“A philanthropic support base helps ensure that we can meet the need for training physician investigators who have excellent clinical skills and research experience,” Dr. Hull says.

Since the college began accepting students in 2004, two classes have graduated and all students seeking residency were matched with nationally recognized institutions across the country, including Duke University, Emory University, Georgetown University Hospital, Stanford University and Yale-New Haven Hospital.

“Many of our students are going to the best training programs in the country,” says Kathleen Franco, MD, Associate Dean of Admissions and Student Affairs.

Unlike traditional four-year, lecture-oriented medical school programs, the Lerner College of Medicine has a five-year curriculum built around problem-based learning. Traditional medical school programs often separate scientific research from clinical coursework, but the Lerner College of Medicine integrates them.

In the majority of curriculums, medical education is science-based, with expert teachers giving students lectures. “It is very passive,” says Christine Taylor, PhD, Director of Faculty Development. “The idea at the Lerner College of Medicine is to develop curious, lifelong learners who find ways to continuously make themselves better clinicians and researchers. In addition, the curriculum is competency-based. We have no tests or grades, and the students are not compared with one another. Rather, their performance is compared to competency standards. It’s a collaborative rather than a competitive atmosphere, in which students learn from each other as well as their teachers.”

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– Alan L. Hull, MD, PhD

The curriculum in the first two years is problem-based learning, in which students are given a case and have to figure out what they need to learn to solve it, Dr. Taylor says. “They work as a group, dependent on each other for their learning. It’s a very adult model of learning.”

Philanthropic support is necessary, says James B. Young, MD, Executive Dean of the Lerner College of Medicine and holder of the George M. and Linda H. Kaufman Endowed Chair.

“It is very difficult without a strong philanthropic underpinning to provide the educational opportunities we think are important,” Dr. Young says.

Especially beneficial are gifts establishing endowed chairs and those supporting scholarship programs and themed programs, such as the humanities in medicine, Dr. Young says. One such supported program is a lecture series on the ethics of human medical trials, evidence-based medicine and how innovations drive healthcare delivery, and similar topics taken from a historical perspective.

“Clearly, we have to have philanthropy to help us move forward what we believe is a unique program, very creative, innovative and steeped in medical history, the humanities and scientific fact,” he says. “We hope to produce students who are outstanding scientists and clinicians, as well as outstanding people.”

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Reaching out internationally

In September 2009, Yenal Harper, MD, a cardiology research fellow from Jordan, began clinical research training at Cleveland Clinic through a philanthropically supported program, The Fuad Jubran Center for Middle East Medical Education.

“My experience so far has been nothing short of amazing,” Dr. Harper says. “Since the first day of my work here, I have developed a respect for Cleveland Clinic’s efficiency, the professionalism of its doctors and the level of care that each and every patient receives.”

In less than a year, Dr. Harper progressed from knowing little about clinical research to running his own study on pulmonary hypertension under the mentorship of cardiologist and researcher W. H. Wilson Tang, MD, and he hopes to publish his preliminary findings by the end of the year. In September, he presented an abstract on his research at the Heart Failure Society of America’s 14th annual meeting in San Diego.

Physicians from around the world come to Cleveland Clinic for their residencies and advanced fellowship work. The alumni network includes 11,000 physicians and scientists from across the United States and 70 countries.

The Fuad Jubran Center is a recent example in a long tradition of educational support for Middle Eastern physicians at Cleveland Clinic. The first gift was made 30 years ago by a heart surgery patient and international member of Cleveland Clinic’s Board of Trustees, Hassib J. Sabbagh.

“On his way home to Lebanon, he surprised me,” recalls cardiologist Fuad Jubran, MD, FACP, FACC, Physician Director of Development for Middle East International Affairs and holder of the Fuad Jubran, MD, Chair in Cardiovascular Medicine. “He said, ‘I can afford this care, but so many people cannot. What can we do?’”

Through that initial program, 17 physicians trained at Cleveland Clinic and returned home to practice and train other physicians. “Now, they are prominent physicians in that part of the world,” Dr. Jubran says.

Later, another Middle Eastern philanthropist and Cleveland Clinic patient established two medical education programs at Cleveland Clinic, The Fuad Jubran Center for Middle East Medical Education and The Rose Yabroudi Endowment Fund for Medical Specialty Training of Women Graduates from the Middle East. Physicians who come to Cleveland Clinic to train as researchers in these programs are expected to return to their home countries to help create medical centers of excellence, Dr. Jubran says.

Since the Fuad Jubran Center was initiated a few years ago, two physicians have graduated and returned home.

The first student supported by The Rose Yabroudi Endowment Fund arrives at Cleveland Clinic in 2011.

Philanthropic support of international medical education helps reinforce Cleveland Clinic’s reputation as a global institution, Dr. Jubran says. “When they return home, each of these students is an ambassador for Cleveland Clinic.”

Lerner College of Medicine

Located within the Lerner Research Institute on Cleveland Clinic’s main campus, the Cleveland Clinic Lerner College of Medicine offers a distinctive program designed to train physician researchers. Features include:

- A five-year course of study with a required substantive research project
- Students graduate with an MD degree with special qualification in biomedical research
- Curriculum is problem-based rather than lecture-based, with students learning by case studies
- Close interaction with clinical and research faculty
- No grades; it’s a portfolio-assessed, competency-based learning environment
Cleveland Clinic’s Education Institute sponsors one of the largest physician-graduate training programs in the country. More than 800 residents/fellows are training in 56 residency programs and more than 70 advanced fellowship programs.

Cleveland Clinic hepatology fellows participate in research projects and clinical patient care. They often have their research papers published, obtain research grants and give presentations at national professional meetings, Dr. O’Shea says, noting that the program’s graduates have gone on to successful careers in academic medicine, training the next generation of physicians and scientists.

Tarek Abu-Rajab Tamimi, MD, a recent graduate of the program, says, “I am fortunate to have had the opportunity to do my hepatology fellowship at one of the leading medical institutions in the United States, with an outstanding transplant center.”

Now a gastroenterology fellow at Metro-Health Medical Center-Case Western Reserve University in Cleveland, Dr. Tamimi says he gained extensive experience at Cleveland Clinic in managing patients with acute and chronic liver diseases and evaluating and managing liver transplant candidates and recipients. His research projects, under the mentorship of “world leaders in hepatology and liver transplantation,” he says, yielded findings that have been published by leading hepatology journals.

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Developing careers

Aniko Kukla, MSN, RN, a clinical nursing instructor, and Michelle Berkley, MSN, RN, Director of Clinical and Educational Outreach, are advancing their careers by pursuing doctorates in nursing practice with the help of the Paul J. Everson Endowed Scholarship for Nursing Excellence.

Ms. Kukla discovered her passion for orienting new nurses and providing continuing education for established nurses and would like to develop programs for international nursing candidates. Ms. Berkley plans to promote the field of nursing by teaching and mentoring others.

“This degree will give me the ability to grow intellectually and help further my knowledge and skills,” Ms. Kukla says.

Achieving the highest level of education in her field is important to Ms. Berkley, as well, she says. However, as a single mother with a son entering college, she was planning on waiting awhile. “By covering the cost of the first class, this scholarship made it possible for me to work on achieving my goal of obtaining a doctorate a lot sooner than I had planned.”

Ms. Kukla and Ms. Berkley are among nine scholarship recipients in the Stanley Shalom Zielony Institute for Nursing Excellence.

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“Mr. Everson’s gift supports outstanding nurses in clinical and administrative leadership roles who strive to enhance the practice of nursing,” says Kelly Bryant, MS, BSN, RN, Director of Nursing Education, Faculty and Student On-Boarding. “We considered recipients’ academic potential, their rationale for pursuing doctoral studies, how they will apply what they learn to their current or future roles and how they will use their education to advance nursing practice.”

Nursing education is critical to Cleveland Clinic’s success as a premier medical institution.

— Joan Kavanaugh, RN, BSN, MSN, Associate Chief Nursing Officer, Clinical Education and Professional Development
The Stanley Shalom Zielony Center for Advanced Nursing Education, established in 2009 within the Zielony Institute, is expected to help many Cleveland Clinic nurses obtain undergraduate and advanced nursing degrees. Mr. Zielony’s gift also supports other education initiatives, including the Nursing Institute’s simulation lab. Cleveland Clinic is among a very few academic medical centers with such a lab, which each year trains about 1,300 nurses in using new medical technology.

In the simulation skills lab, mannequins help nurses practice in a realistic hospital setting. The mannequins are connected to a computer that changes their vital signs as nurses care for them.

“The simulation lab allows our nursing staff and multidisciplinary team, including physicians and respiratory therapists, to have hands-on training in a safe environment,” says Leslie Simko, MS, BSN, RN, Simulation Coordinator. “Without this lab, the nurses would be training with real patients. Here, they can build their confidence prior to taking care of patients.”

Nursing education is critical to Cleveland Clinic’s success as a premier medical institution, says Joan Kavanagh, RN, BSN, MSN, Associate Chief Nursing Officer, Clinical Education and Professional Development. “We encourage and support lifelong learning,” she says. “Rapid change and technological advances require a workforce that is constantly evolving.”
Stephen Lau, PhD, and his wife, Bonnie, along with the leadership of Industrial First Inc. and Shippers Highway Express Inc., would like to send a message with a $1 million life insurance policy that they have established to benefit the Cleveland Clinic health system.

“Bonnie and I learned that there are many ways to make a gift, and the one that was the best fit for us was a gift of a life insurance policy,” Dr. Lau says. “We are hoping that this will encourage others to think about it.”

The joint gift will benefit Hillcrest Hospital and is intended to foster continuing development and expansion of Cleveland Clinic’s mission. It is meant to:

• Recognize the bold and innovative thinking that led to the Cleveland Clinic health system, creating a new healthcare landscape for the region
• Encourage continuing innovation by current and future healthcare institution leadership
• Thank Cleveland Clinic for its history of accomplishments in the field of medicine and continuing service to the community

“We make this gift now in a time when there are economic challenges and Cleveland Clinic is innovating in a major way,” Dr. Lau says. “Each of us said that we have to invest in the people and technology at Cleveland Clinic now, for the future.”

John Rundo, George Klik, and Carmen Santamaria, President and Vice Presidents, respectively, of Industrial First Inc., and Jess Camera, President of Shippers Highway Express Inc., agree.

“We have a long history with Cleveland Clinic and the regional hospitals,” Mr. Rundo says. “We believe in and want to support Cleveland Clinic’s continuing success.”

Dr. Lau’s family also has a long history of philanthropy in the Cleveland area. His father, Orrin F. Lau, who passed away in 1998, was once Chairman and CEO of Industrial First Inc. and a member of the board of Doctors Hospital. As a member of a small leadership group, he led the hospital’s move to Mayfield Heights, where it was renamed Hillcrest Hospital. He became Chairman of Hillcrest’s board, executive committee and building committee.

Dr. Lau, too, has years of volunteer leadership experience at Cleveland Clinic and provided leadership and advice in the creation of the Cleveland Clinic health system.

“This gift recognizes the very personal and enduring relationship spanning more than 45 years that exists between Cleveland Clinic and Hillcrest Hospital on the one hand, and Bonnie and I and the leadership of Industrial First Inc. and Shippers Highway Express Inc. on the other,” Dr. Lau says. “We hope that this is the first of many gifts, with others also giving back to Cleveland Clinic and the community in a way that works best for them.”
Catalyst

Gates Foundation Grant Supports HIV Research

Cleveland Clinic researchers, in collaboration with the University of Pittsburgh and the Pittsburgh Supercomputing Center, will develop and examine novel mathematical and computational models that incorporate recent knowledge about the HIV infection, including how the virus is transmitted from an infected person to a susceptible person, causes progressive disease leading to death when untreated, responds to antiretroviral therapy and develops drug resistance. These models will simulate the effects of antiretrovirals used for treatment or as a preventive measure, Dr. Abbas says.

“Mathematical and computational modeling can help us design optimal prevention and control strategies,” Dr. Abbas says. “I am both thrilled and grateful to be a grant recipient of the Bill & Melinda Gates Foundation. This award will enable me to take infectious disease epidemiological modeling to a new frontier and make a valuable contribution to global health.”

Catalyst 9
The answer, as conceived by Dr. Gorodeski and Steven H. Landers, MD, MPH, Director of Cleveland Clinic’s Center for Home Care and Community Rehabilitation, is an innovative program for monitoring patients after their hospital stay. The program, Heart Care at Home, has received a three-year, $307,587 grant from The Doctors Company Foundation, a nonprofit organization focusing on patient safety.

A gap in continuity of care leads to most hospital readmissions, Dr. Landers says, with over half of readmitted patients going back for problems unrelated to their heart conditions. For instance, they may have fallen, be in pain or have a psychiatric condition.

“We geriatricians beat the drum of treating the whole person, including what we consider general elder care, not only cardiology,” he says. For instance, if patients are at risk of falling, environmental modification or physical rehabilitation may be needed. If patients have uncontrolled blood sugar, nursing protocols and the medical team address the problem.

“We believe that the home care and heart care areas working together, using old-fashioned, holistic home nursing combined with new techniques and monitoring, will produce positive outcomes for patients,” Dr. Landers says.

Importantly, Heart Care at Home standardizes care, Dr. Gorodeski says. Patients are monitored for 30 days after hospital discharge. A care coordinator calls to ensure that their needs are being met, including medications, medical appointments and having someone at home to help. A telehealth unit tracks vital signs, transmitting information through the patient’s home telephone land-line to a center where nurses receive the information and update the patient’s physicians. If needed, Cleveland Clinic sends a medical team to the home, especially when a patient has limited mobility and difficulty getting to appointments.

“We thought this program was right in line with our mission,” says Leona Egeland Siadek, Executive Director of The Doctors Company Foundation. Noting the program’s ability to deliver medical care to the patient’s home when necessary, she says, “We looked at the opportunity to reduce risk. In moving a patient from a bed to a wheelchair to a car and then to an office, there is a risk of falling and too much stress placed on a fragile patient.”

If the program proves successful, the pilot project could be upheld as a model for other hospitals to adopt, says Dr. David Troxel, Board Chairman of The Doctors Company Foundation, adding that it also could be adapted for patients with conditions other than heart disease. “This initiative aims to manage patient risk more effectively, improve patient safety, enhance patient outcomes and create a model to help older patients with chronic illnesses more easily transition from hospital to home with fewer readmissions.”

To date, a total of nearly 400 patients have been enrolled in the program, with about 90-100 Cleveland Clinic patients actively monitored at any given time. The number of patients being monitored will grow to at least 250 with the support of the grant, Dr. Gorodeski says. “We are hoping that within a year we will have enough data to start publishing our results.”

Dr. Landers concurs. “We believe that we have a good idea, but it’s important to do the research, dot the i’s and cross the t’s. That’s where the grant will really help.”
Every 70 seconds, someone is diagnosed with Alzheimer’s disease, a devastating neurological disease afflicting 5.5 million people in the United States, alone.

In Northeast Ohio, Alzheimer’s patients and their families will have access to the latest treatment approaches at Lakewood Hospital, thanks to a $1 million gift from The Harold C. Schott Foundation establishing The Harold C. Schott Pavilion for Geriatric Neurological Health.

Unveiled in a ceremony on Aug. 26, The Harold C. Schott Pavilion allows for expansion of the hospital’s existing neurological and geriatric services related to brain health and integration of the SeniorCare Services and Cleveland Clinic Neurological Institute care at the hospital. The new center also treats patients with brain disorders such as headaches, tumors, stroke, brain cancer and multiple sclerosis.

“This will really make Lakewood a regional hub for neurology care,” says Jan Murphy, President of Lakewood and Fairview hospitals.

The Harold C. Schott Pavilion is part of Lakewood Hospital’s Vision for Tomorrow strategic plan to meet the changing needs of the community and improve the patient experience.

“Lakewood Hospital has been offering care to the community for more than 100 years, and it is our hope that with this donation they will continue to provide excellent care to the community for many years to come,” says Betty Jane Mulcahy, trustee, H.C.S. Foundation. “The hospital’s Vision for Tomorrow is a great investment in the community, and we are very supportive of it.”

Plans are to focus on “the three P’s”: patient-centered, prevention and participation, says Jeffrey L. Cummings, MD, Director, Cleveland Clinic Lou Ruvo Center for Brain Health. Dr. Cummings has an integral role in developing programs at Lakewood Hospital, as well as on Cleveland Clinic’s main campus and at the Lou Ruvo Center for Brain Health in Las Vegas.

“I look forward to collaborating with the geriatric and neurological specialists at Lakewood Hospital to optimize patient care through teamwork,” he says.

Patients are key to developing new treatment approaches for Alzheimer’s and other neurodegenerative diseases, including through participating in clinical trials, Dr. Cummings says. He emphasizes the importance of a patient-centered program that provides high-quality, comprehensive services in a convenient location.
New(s) at Cleveland Clinic

U.S. News & World Report Rankings
For the 16th consecutive year, Cleveland Clinic’s heart and heart surgery program was ranked No. 1 in U.S. News & World Report’s “America’s Best Hospitals.” Cleveland Clinic also ranked 4th overall once again. The cancer program at the Taussig Cancer Institute made its debut on the Top 10 listing at No. 9, and Cleveland Clinic Children’s Hospital’s neurology and neurosurgery program was ranked No. 6. Two other Cleveland Clinic hospitals listed as top hospitals were Lutheran Hospital for neurology care and Cleveland Clinic Florida for treatment of digestive disorders and diabetes and endocrine disorders.

Dr. Hazen Wins NIH Grants
Stanley Hazen, MD, PhD, Section Head of Preventive Cardiology in the Sydell and Arnold Miller Family Heart & Vascular Institute and staff member of the Lerner Research Institute’s Department of Cell Biology, is leading two investigations that won grants from the National Institutes of Health (NIH). A $3.8 million grant supports a study of the effects of genes and diet on the development of atherosclerotic heart disease, and an $11.7 million grant supports investigation into clarifying the role of good (HDL) cholesterol.

New Center Formed for Ethics, Humanities, Spiritual Care
Cleveland Clinic has combined formerly separate areas into one collaborative group, the Center for Ethics, Humanities and Spiritual Care (CEHSC). It is under the direction of Eric Kodish, MD, the F.J. O’Neill Professor and Chair of Bioethics, Martin Smith, STD, Associate Director for Clinical Ethics and Spiritual Care, and Richard Sharp, PhD, Associate Director for Research and Education.

1921 Society Inducts New Members, Awards Distinguished Fellows
On Oct. 14, 38 new members were inducted into Cleveland Clinic’s 1921 Society, established to recognize benefactors who have made philanthropic commitments of $1 million or more. Norma Lerner serves as the 1921 Society Chair. The Distinguished Fellow, the highest lifetime honor for those making extraordinary contributions of service and resources to further Cleveland Clinic’s mission, was bestowed upon longtime benefactors Maria Miller, Iris and Mort November, and Clara and John Sherwin Jr. Another event highlight was the presentation of The Alfred and Norma Lerner Humanitarian Award, the highest physician award granted at Cleveland Clinic, to Richard S. Lang, MD, MPH, Vice Chair of the Wellness Institute, Chairman of Preventive Medicine and holder of the Arthur S. and Arlene M. Holden Endowed Chair.