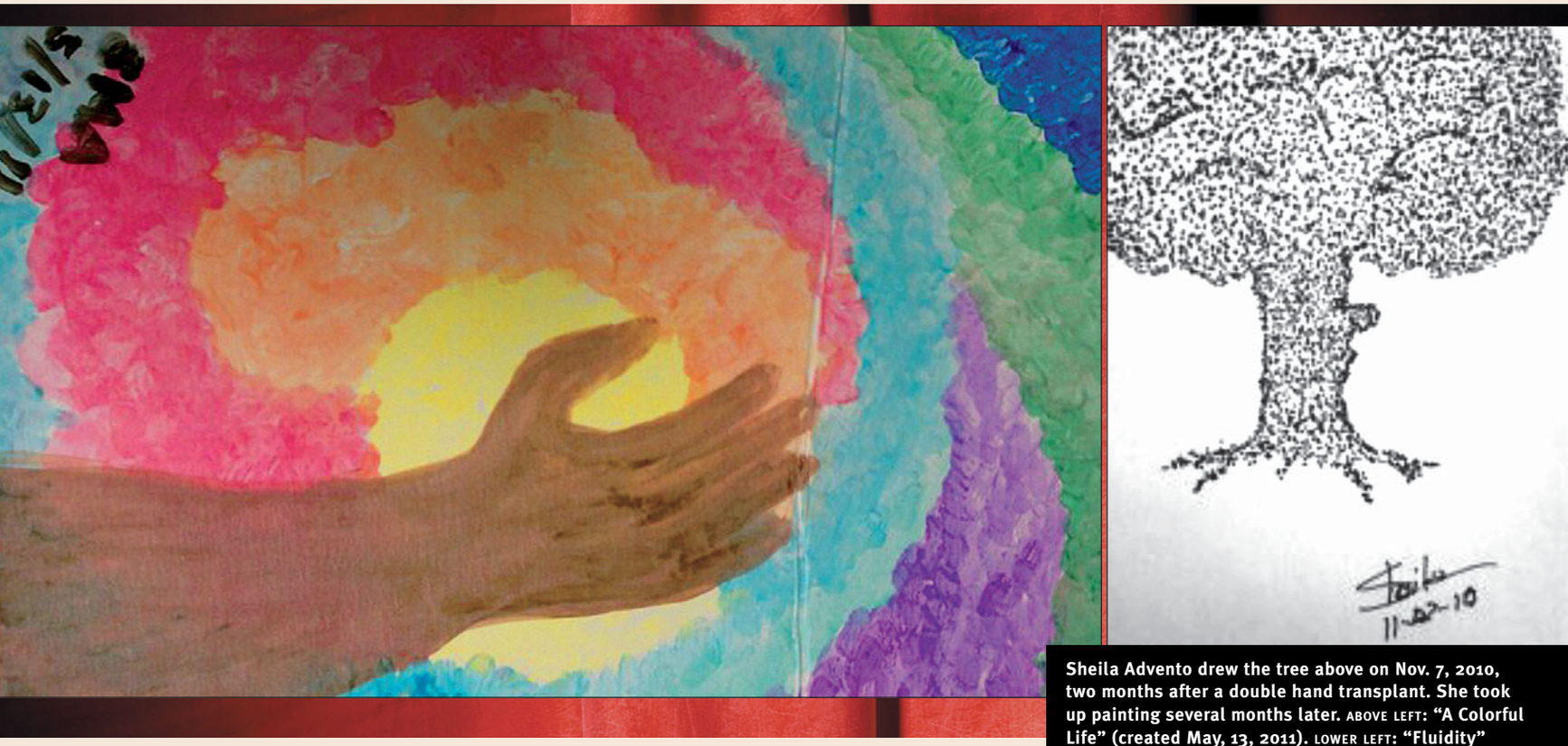
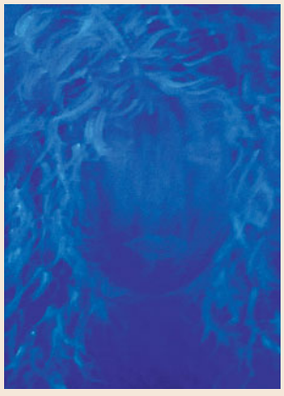


Sheila Advento drew the tree above on Nov. 7, 2010, two months after a double hand transplant. She took up painting several months later. ABOVE LEFT: "A Colorful Life" (created May, 13, 2011). LOWER LEFT: "Fluidity" (Nov. 23, 2011). LOWER RIGHT: When Advento drew "Precious" (undated), she still had prosthetic arms.

HARD BEAR WOMAN

THE ART OF LIVING

BY ERICA LLOYD





Sheila Advento's hands are not the hands she was born with.

In 2003, at the age of 26, Advento was living with her mom in Hackensack, N.J., and working in patient billing at Quest Diagnostics while attending community college. On July 4th, she came down with a devastating bout of meningococcemia and days later fell into a coma. While Advento lay unconscious at Hackensack University Medical Center, her family held vigil at the hospital. Tita Sally, her aunt back in the Philippines, recited novenas. Brother-in-law Hadrien, who had studied Native American healing practices, set up an altar in the ICU; he also called his mentor, Chief Phillip Crazy Bull, a Sicangu Lakota Holy Man, who proceeded to lead hundreds in a Sun Dance ceremony in South Dakota. In recognition of the healing powers of the bear, Advento would be offered the spiritual name *Mato Suksuta Win*, Hard Bear Woman.

On the seventh day of her coma, the doctors called a family meeting: They couldn't reverse the young woman's condition. It was time to consider ending life support. Advento's family refused to give up hope. Her mother, a nurse at NYU's rehabilitation center, directed the intensivist to continue support but lessen intravenous sedation. Also: If her daughter's vital signs deteriorated, the doctors should not attempt extreme measures to save her.

On the ninth day, Advento opened her eyes. Her family was jubilant. Advento was grateful to be alive; while comatose, she had a vision that she was lost in Calcutta.

But as the days passed, it became clear that Advento's hands and feet were infected and could not be saved. They would have to be amputated. During those weeks in the hospital as the amputations proceeded, there was despair but also love. At any given moment, a family member was by Advento's side. In the months afterward, she learned to walk on prosthetic legs. She learned to use prosthetic hands. She moved into her own apartment, with an assistant helping her in the mornings and evenings.

Seven years later, an opportunity arose. Advento would become the first woman in the United States to undergo a double hand transplant. On Sept. 18, 2010, four teams of surgeons at the University of Pittsburgh went to work. Two teams removed hands from the donor; two teams attached those hands to Advento. The surgeons fixated bone from the donor hands onto her forearms. They connected and repaired tendons, arteries, nerves, and veins. After 12 hours and 17 minutes, they were done. Advento was put on the Pittsburgh Protocol of immunosuppression.

She recovered from the procedures with no significant medical issues, but she would have to win back her independence. This meant six hours of occupational therapy a day. Advento would attempt to influence and feel her surroundings through an intricate network of 96 nerves and 56 muscles that once belonged to someone else. The simplest tasks, like turning a door knob, were formidable.

One month after the transplant, Advento drew the cartoon character Garfield. (She'd always liked drawing.) Four months after transplant, she wove a bracelet. That same month, she played darts for the first time, even pulling off a few bull's-eyes. She experimented with something else, too. At Hadrien's suggestion, she started painting.

"I wanted to keep trying things," she says. "Even if I was unsuccessful, at least I would know I was successful in trying."

She's back working at Quest and expects to continue with hand therapy (two or three hours a day) for the rest of her life. She has her own place again; about once a week an assistant comes by to help out.

What's been most rewarding about the journey: touching others—holding a hand or reaching out some other way. Advento has been featured in national media and given talks to amputees and other groups. It seems to help people when she shares her story. ■

ARTWORK COURTESY ADVENTO

People and programs that keep the school healthy and vibrant

BEYOND EXPECTATIONS

NEW SCHOLARLY PROJECT FUND HONORS LOREN ROTH

BY NICK KEPPLER

"I don't think there's anyone more willing to go not just the extra mile but the extra 10 miles," says Pitt's Ellen Frank, Distinguished Professor of Psychiatry and professor of psychology, of her colleague Loren Roth. Now some School of Medicine students will reap benefits from Roth's tireless, beyond-the-expected approach to patient care.



Roth

Anonymous donors have made a $100,000 gift to honor Roth, a psychiatrist who has held a variety of leadership positions in his 38-year history at Pitt and UPMC (including chief medical officer) and is now Pitt's associate senior vice chancellor for clinical policy and planning, health sciences. The donation will fund the Loren H. Roth, MD, Summer Research Program, which will help med students pay for travel, books, lab materials, and other expenses related to work on the research experience known as the scholarly project.

The donors, a husband and wife who have long supported the University, say Roth helped organize care for a loved one. His "breadth of experience allowed him to locate national resources, beyond what was available locally," says one of the donors.

This does not surprise Frank, who has worked with Roth for more than 15 years at Western Psychiatric Institute and Clinic, where he began his career at Pitt 38 years ago as director of the Law and Psychiatry program. She says Roth took notice of another WPIC patient who needed help and stepped into a variety of roles for her, even helping to fix her plumbing and arrange her finances.

Pitt's Margaret McDonald, a PhD and associate vice chancellor for academic affairs, health sciences, has known Roth since the 1970s, when she was a science reporter and he was one of her sources. McDonald calls him a man of "extraordinary intellectual curiosity who has taken the course of his career into several interesting directions." Before he was a psychiatrist, Roth was a general practitioner at the United States Penitentiary in Lewisburg, Pa., where he organized the prison debate team and treated James Hoffa. Later, he was the psychiatric leader for several State Department delegations to the Soviet Union, examining the Communist party's practice of locking up healthy dissidents in mental hospitals. On a previous visit to the U.S.S.R. in 1985, Roth was a member of a lay group that set up medical clinics with the underground and smuggled in medications.

At Pitt, Roth and colleagues created "The Basic Science of Care" course that was required for several years for second-year medical students. The course taught about hospital safety and how medical care is administered in the United States.

The med school course was "quite prophetic and ahead of its time," says McDonald. (By the way, the scholarly project fund is not the first program to recognize Roth; a UPMC annual seminar on quality and patient safety also carries his name.)

Roth has a special appreciation for the scholarly project experience that the $100,000 donation supports. The project was added to the School of Medicine's curriculum in 2004 and led to 18 fellowships, 22 awards, and 106 coauthorships in research papers among the Class of 2011 alone. Students work with mentors to research a topic of their choosing. The program was designed to spark curiosity and help students develop investigative skills. (Projects examining three broad subjects close to Roth's heart—medical ethics, psychiatry, and quality of patient care—will be given preference for funding.)

"Pitt has pioneered nationally by establishing these medical student research projects," Roth says, "lighting the fuse of discovery, thereby adding so much to student experiences analytically and attitudinally." *—Joe Miksch and Shermi Sivaji contributed to this story.* ■