

DR. ALAN SOLOMON AND HIS RESEARCH TEAM AT THE UNIVERSITY OF TENNESSEE GRADUATE SCHOOL OF MEDICINE'S HUMAN IMMUNOLOGY AND CANCER PROGRAM ARE WORKING TO DEVELOP NEW WAYS TO DIAGNOSE AND TREAT PATIENTS SUFFERING WITH AMYLOIDOSIS. THIS DEVASTATING ABNORMALITY IS ASSOCIATED WITH CERTAIN FORMS OF CANCER, AS WELL AS ALZHEIMER'S DISEASE, DIABETES, AND RHEUMATOID ARTHRITIS. WITH AN AMYLOID IMAGING CLINICAL TRIAL UNDERWAY, DR. SOLOMON REMAINS HOPEFUL THAT "OUR RESEARCH EFFORTS AND THOSE OF OTHER SCIENTISTS THROUGHOUT THE WORLD, WILL HELP THOSE AFFLICTED WITH THESE DISEASES WHICH EXERT SUCH A DEVASTATING TOLL ON PATIENTS AND FAMILY MEMBERS ALIKE," HE SAID.

By Chandra Harris-McCray

HANDS OF A HEALER:

*Demystifying
the Mysteries
of Incurable
Diseases, Dr.
Alan Solomon
Finds Beauty
in the Roughest
Places*

THE CHOREOGRAPHY BETWEEN DR. ALAN SOLOMON'S HANDS AND THE LAYERS OF EARTH HE WORKS IN SEEMS MORE LIKE A FIGHT THAN A DANCE. NEVER TIRING OF GRAPPLING WITH STONE,

hoisting it up, hugging it to him, and shoving it into place with the heels of his hands, Solomon makes the jagged edges of stone appear smooth.

An antidote to his journey as an internationally renowned physician and medical scientist at the University of Tennessee Graduate School of Medicine, Solomon strives to find ways to better diagnose and treat patients with amyloidosis—an abnormality that occurs in certain forms of cancer, as well as Alzheimer's disease, diabetes, and rheumatoid arthritis. Fighting these stubborn, as-yet incurable, amyloid-related diseases is the life's work of the director of the UT Graduate School of Medicine's Human Immunology and Cancer Program.

In 1992, Solomon became one of eight American Cancer Society Clinical Research Professors, a title he still holds. For more than four decades, the professor of medicine has received research grants from the National Institutes of Health. For 15 years, he and his research team have focused their efforts on altering hypotheses and experiments to develop innovative diagnostic and therapeutic anti-amyloid strategies to combat amyloidosis, a disease that deposits mutated protein, ravages the body's vital organs, and often kills.

From mice to a human clinical trial approved by the U.S. Food and Drug Administration (FDA), Solomon and his team's time and patience have revealed a monoclonal antibody that binds to the amyloid and has the potential to destroy this substance with the help of the body's natural defense mechanisms. When labeled with a radioisotope, the antibody can detect the presence of amyloid in the body by PET/CT imaging. Already more than two dozen patients with primary amyloidosis have come from Tennessee, other states, and Canada, to be part of a clinical trial supported by an FDA Orphan Products Development Grant.

"We plan to extend this work to the type of amyloid that occurs in the brains of patients with Alzheimer's disease," said Solomon, whose soft-spoken, reserved tone rises and accelerates. "Then we can uncover the mysteries of other amyloid-associated maladies such as diabetes and develop drugs and other helpful compounds to improve patient survival."

His work is rooted in a promise.

After the death of one of his patients, a schoolteacher, more than a decade ago, Solomon made a vow to the woman’s husband that he and his research team were committed “to doing something to affect the disease that took his wife.

“When I make a promise, I try to keep it.”



A BUST OF SOLOMON’S FATHER SITS IN HIS OFFICE. IT REMINDS HIM OF THE JOURNEY HIS FATHER, WHO DROPPED OUT OF SCHOOL AT 14 TO TAKE CARE OF HIS FAMILY, WEATHERED TO BECOME A PROMINENT NEW YORK LAWYER. “HIS STORY IS FAR BETTER THAN MINE,” EXPLAINED SOLOMON.

A FATHER’S EXAMPLE

Solomon’s fervent pursuit of answers was inspired by his father, Joseph Solomon, who never saw success as a single effort, but as measured by the courage to continue working, even in the face of seemingly hopeless odds.

One of eight children born to poor Russian immigrants, Solomon’s father had to drop out of school at the age of 14 to help support his family.

Joseph Solomon took a job as a messenger at a law firm making \$10 a week, attended school at night, and graduated from New York Law School in 1927 without the benefit of a college degree or a high school diploma. He eventually became senior partner of the same New York law firm where he once worked as a messenger—a truly remarkable feat. In 1978, the same year he was inducted into

the Horatio Alger Society, he finally received his elementary school diploma on stage with the children receiving theirs.

“A tough act to follow,” said Solomon, sitting in his office chair, with a bronze bust of his father peering over his right shoulder. “Nothing like

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—Dr. Alan Solomon
UT Medical Center Physician and Scientist

having your father looking over your shoulder,” Solomon said as he chuckled to himself.

“He left behind big shoes to fill.”

SOLOMON FINDS RESPITE IN HIS BREATHTAKING GARDEN ACCENTED WITH STONE WALLS THAT HE HAS BEEN CONSTRUCTING FOR MORE THAN THREE DECADES. LOCATED JUST MINUTES FROM UT, THE 20-ACRE PROPERTY IS A STROLLING BOTANICAL GARDEN AND ARBORETUM. HIS AFFINITY FOR THE ARTS LED HIM TO CHAIR THE COMMITTEE TO BUILD THE KNOXVILLE MUSEUM OF ART.



THE HEART OF A RESEARCHER

Solomon first found his calling after he won his fair share of ribbons in science fairs for chemistry experiments. Then as a student at Duke University's School of Medicine, he discovered the world of clinical investigators, physician scientists who care for patients and also conduct laboratory research. From that moment he knew that just being a doctor was only part of his passion.

After medical school and completing an internship at Mount Sinai Hospital in New York, Solomon went on to tackle a feat most doctors never undertake—three more years of clinical training plus an additional four years of research training.

Lured by the freedom of research, the New York native said “yes” to UT only after a second phone call from the director of the UT Memorial Research Center (the predecessor to the UT Medical Center), who coincidentally was a former professor at Duke.

“To have a hand in medical research that can one day be lifesaving is the pinnacle of medical progress,” he said.

Anti-cancer drugs were a mere dream in 1966 when Solomon came to UT. Not much was known about DNA. MRI, CT, and PET scans did not exist. There was no such thing as the Internet, so researchers relied on the medical library, where research materials took months to reach library shelves.

“The extraordinary discoveries and progress made since that time are truly remarkable,” Solomon said.

In his office, adorned by dozens of collected rocks on shelves where books ordinarily would stand, is a picture of one of his patients—a woman with a soft, oval-shaped face and deep brown eyes. “A remarkable and brave human being,” he said while putting a rock he collected from Mount St. Helens back in its original place. Photos of other patients remind Solomon why he keeps writing grants, submitting papers, and researching the unknown.

In addition to supporting the Steinfeld Program in Judaic Studies at UT, Solomon honors the memory of many of his patients through the nursing endowments he created. These gifts benefit aspiring nurses wishing to specialize in oncology “because there will never be enough nurses,” he explained.

“Nurses are so valuable to medicine, yet they are the most undervalued. They are the eyes and ears of every doctor. They are the angels of mercy for every patient.”

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ANCHORED BETWEEN A COLLECTION OF ROCKS AND STONES, PATIENT PHOTOS ARE A POIGNANT REMINDER OF THE MANY REASONS DR. ALAN SOLOMON CONTINUES TO WRITE GRANTS, SUBMIT PAPERS, AND PURSUE EFFECTIVE TREATMENTS FOR AMYLOIDOSIS. HE IS A MEMBER OF UT'S CLARENCE BROWN THEATRE ADVISORY BOARD, AND HE SERVES ON THE BOARDS OF VISITORS FOR THE DEPARTMENT OF RELIGIOUS STUDIES AND THE COLLEGE OF NURSING, WHERE HE HAS ESTABLISHED ENDOWMENTS TO BENEFIT STUDENTS AND FACULTY.

GOD'S ANSWERS TO OUR PRAYERS

Solomon's sensory-laden garden boasts dozens of limestone walls, bubbling fountains, curious “I-wonder-where-that-takes-you” pathways, and sculptural beauties tucked away on 20 acres amid towering trees just minutes from UT.

Much like his medical research, the stone walls, finely crafted and layered like stack cakes, have taken time—more than three decades of nights and weekends—to construct.

At home, he hangs up his white lab coat in exchange for a T-shirt with cut-off sleeves and worn-out jeans.

While sitting alone in a pasture, his hands work to position what looks to be a broken, useless piece of rock. Down a sloping hill, Solomon is steadily creating another masterpiece. He learned the art of laying stone from the late Marvin Franklin. “He did some stonework at the house, and I remember just being fascinated watching him. I became his apprentice, and then we worked as a team for 25 years.

“This one we call the Great Wall of China,” he said of the wall, which reaches almost 200 yards.

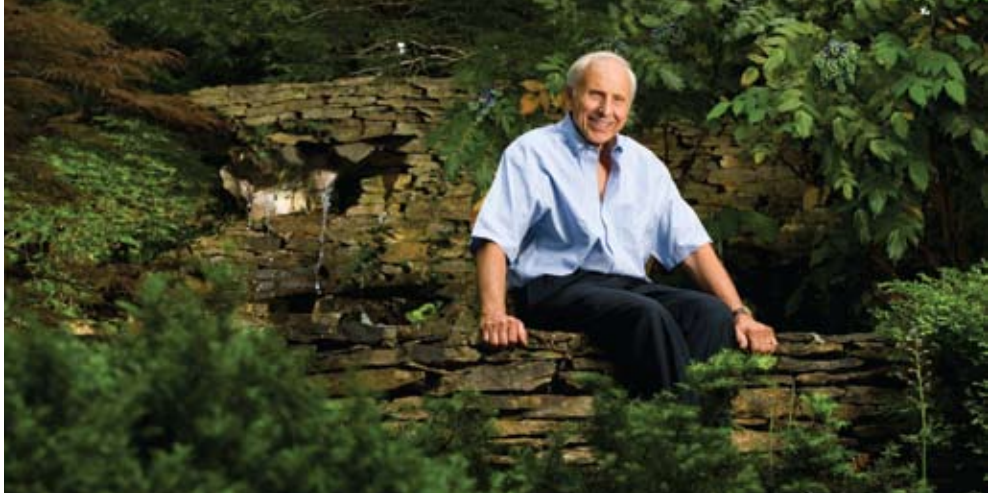
AS A PEACEFUL ALTERNATIVE TO HIS HECTIC SCHEDULE, THE EXTENSIVE GARDEN SOLOMON HAS BUILT FEATURES INTRICATE AND BEAUTIFUL STONE WALLS. "THERE IS NO CELL PHONE ATTACHED TO MY HIP. IT IS JUST ME AND THE COMPANY OF THOUSANDS OF TONS OF ROCK AND THE QUIET OF NATURE."

continued Another curving wall,
from much like a wailing wall,
page 17 stretches as far as the eye
can see, and serves as the
backdrop to a small pond
with lily pads.

He gives a grunt at the thought of equating his stonework to painstaking, backbreaking labor, "for it is the most peaceful and relaxing work that I know," he said. "There is no cell phone attached to my hip. It is just me and the company of thousands of tons of rocks and the quiet of nature."

"This sculpture came from my parents' house," said Solomon as he pointed to a contemporary piece of a man and woman facing one another, connected by their hands. Near the sculpture are the buried ashes of his father underneath a holly tree and his mother beneath a magnolia.

A plaque resting in stone reveals the name of Solomon's garden—GATOP, an acronym for God's Answers to Our Prayers. Appropriately named, the one-time marble quarry, reveals majestic views of the Smoky Mountains and the Tennessee River.



Showcased in national home magazines and acknowledged by the Smithsonian Institution's Archives of American Gardens as a premier architectural garden, GATOP represents serenity—something Solomon faithfully seeks for all his patients. **UT**

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NANCY PREZIOSO BABICH (RIGHT) DIED FROM AMYLOIDOSIS, A WEEK BEFORE SHE LEARNED SHE HAD BEEN ACCEPTED TO PARTICIPATE IN A CLINICAL TRIAL AT THE UT GRADUATE SCHOOL OF MEDICINE'S HUMAN IMMUNOLOGY AND CANCER PROGRAM. BABICH'S NIECE, JEN LATELL (LEFT), ORGANIZED A 5K RACE IN HER AUNT'S MEMORY AND RAISED CLOSE TO \$10,000, WHICH SHE GAVE TO UT'S HUMAN IMMUNOLOGY AND CANCER PROGRAM.

Just a week before she died, Nancy Prezioso Babich learned hope was around the corner.

Suffering from amyloidosis, Babich had been accepted to participate in a clinical trial led by Dr. Alan Solomon at the UT Graduate School of Medicine's Human Immunology and Cancer Program. The on-going study examines the mutated protein of amyloidosis and its possibilities of being destroyed by a binding antibody.

"Even from her hospital bed, it was all she talked about—going to Tennessee and being part of something that could not only save her life, but so many other lives," said Babich's niece, Jen Latell.

The Chicago-area wife and mother of three children under the age of 8 died the day before her 43rd birthday on March 18, 2009.

Carrying on Babich's hope for a cure for amyloidosis, Latell organized a 5K race in memory of Babich in her hometown of Youngstown, Ohio. The May race brought close to 200 participants and nearly \$10,000, which was given to UT's Human Immunology and Cancer Program and its research of the life-threatening disease.

Already vowing to do it again next year, Latell said the race "will be bigger and better."

"She was more like a sister than an aunt to me," Latell said. "I will carry on her hope for a cure."

For more information, please contact Dr. Alan Solomon at 865-544-9165, or asolomon@utmck.edu. Mail contributions to the UT Human Immunology and Cancer Program, UT Medical Center, 1924 Alcoa Highway, Knoxville, Tenn., 37920.