



This Jewish woman's research may save millions of lives

By **VICTOR WISHNA**
LAWRENCE, Kan. (JTA)

Joanna Slusky places a test tube into an incubating shaker, flips the switch, and it begins to quiver. So does she.

"I'm excited," she said, showing off another gadget in her lab, a contraption that stirs solutions using a magnetic coil and a metal bar. "How great is that?"

Potential Lifesaver

It's pretty great — so great that even a psychology major feels the excitement. The work that Slusky is doing at the University of Kansas, where she is an assistant professor of molecular biosciences and computational biology, may ultimately save millions of lives.

A protein she designed appears to be one of the most promising responses yet to the growing threat of antibiotic-resistant bacteria. It's a scourge that infects 2 million Americans each year — more than 23,000 fatally, according to the Centers for Disease Control and Prevention. Some world health officials project that by 2050, antibiotic resistance, if unchecked, could be responsible for more deaths globally than from all forms of cancer combined.

Slusky's innovation earned the attention of the Palo Alto, Calif.-based Gordon and Betty Moore Foundation, which in Novem-

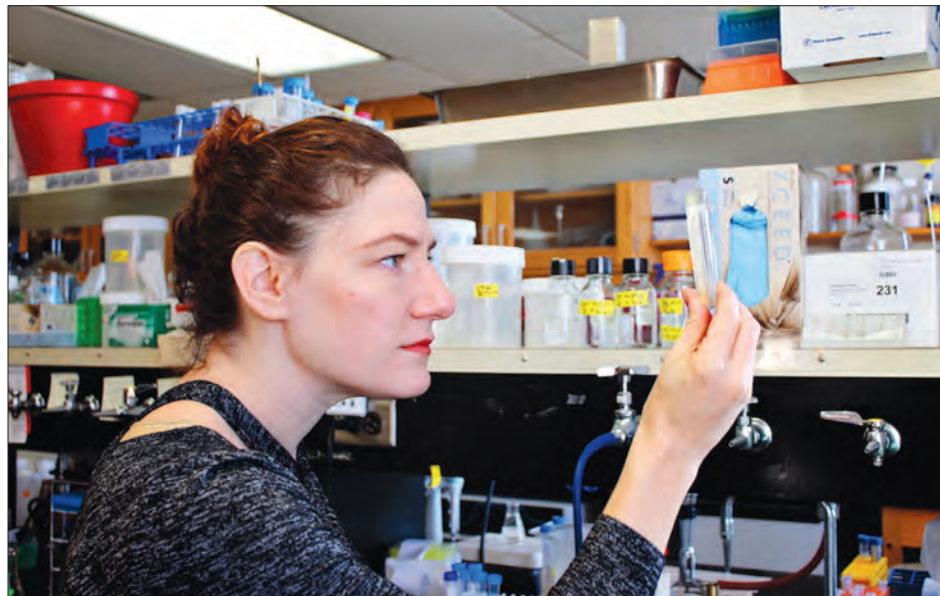


PHOTO BY RYAN FEEHAN.

Joanna Slusky in her lab. She designed a protein that may be a promising response to the threat of antibiotic-resistant bacteria.

ber named her one of the first five Moore Inventor Fellows. As such, she will receive \$825,000 over three years to fund her research, including \$50,000 a year from the University of Kansas.

Family Lore

It's an important crossroads for the prospects for global health and a remark-

able achievement for the 37-year-old Jewish biochemist, who never saw herself as an "inventor scientist"—a term she admits that she, well, invented.

Growing up in an observant Jewish

home in New Jersey, Slusky knew from a young age that she wanted to be a scientist. That's largely thanks to her mother — a Bell Labs physicist who was one of the first women to earn a doctorate in physics at Princeton — who made science "sound like fun," Slusky told JTA.

"There was a car ride that has become one of our family stories," she said. "The conversation topic was, 'What do you want to be when you grow up?' My mother was describing how, as a scientist, she shoots lasers at crystals. My father is a patent attorney, and he told us how he talks to people and he writes things. And I said, 'OK, I'm going to be a scientist.' And my brother said, 'Can boys be scientists, too?'"

Devoted To How And Why

Slusky attended both Orthodox and Conservative day schools and has always kept Shabbat and kashrut. She said her identity is shaped by both her Jewish tradition and her work.

"It's something I think about a lot," she said. "I believe that science is fundamentally answering the question of 'how,'

Continued on page 13

Tell your doctor. Tell your hospital.
Your choice for Rehab is Daughters of Sarah.

For your personal tour, call 456-7831.

- Physical, Occupational & Speech Therapy
- New State-of-the-Art Equipment
- All Private Rooms with en Suite Bathroom

We care for you like you're family!

The Rehabilitation Center at
Daughters of Sarah
SENIOR COMMUNITY
www.dossc.org

Dr. Laura Brodsky
Board Certified Doctor of Audiology

- Comprehensive Hearing Healthcare
- Advanced Technology Hearing Instruments

THE AUDIOLOGY CENTER

783-3110, Ex. 3004
Accepting All Major Insurances

Clifton Park Health Park 1783 Rt. 9 Clifton Park
Delmar Health Center 250 Delaware Ave. Delmar
Capitol Region Health Park 711 Troy-Sch'dy. Rd., Latham (Just off Northway Exit 6)

Obamacare repeal effort sends jitters through Jewish service groups

By BEN SALES

NEW YORK CITY (JTA)

Before the Affordable Care Act was passed in 2010, Jewish Family Service of Metro Detroit organized local doctors to provide free care to Jews who lacked health insurance.

The Detroit agency closed the doctors' program after enactment of the health care law, also known as Obamacare, and instead worked to enroll people in health insurance, either through Medicaid or the state insurance exchange. The organization, which focuses on providing mental health care and financial aid to disadvantaged Jewish families, has enrolled some 10,000 people in health insurance through the ACA.

What Will Happen?

But now that Obamacare could be repealed, the Detroit agency may have to organize doctors once again. Its CEO, Perry Ohren, expects more families to seek emergency financial aid if they lose coverage.

"People will be hurting and they will have more expenses," Ohren said. "We have an inverse relationship to the economy. When things go south, our business goes up."

As Congress moves to repeal and possibly replace the health care law, the more than 100 Jewish Family Service agencies across the country are grappling with the question of what will happen once it's gone. Even as some JFS executives are lobbying Congress to maintain some of the law's protections, others are planning for a future where philanthropy and state government will have to fill in where Obamacare once was.

Early Thursday morning, Jan. 12, Republicans in Congress voted on a budget measure that will move the repeal process forward. It remains unclear what will replace it,



President Barack Obama signs the Affordable Health Care for America Act during a ceremony with fellow Democrats in the East Room of the White House on March 23, 2010, in Washington, D.C.

as well as when that replacement would be passed. At a Jan. 11 news conference, President-elect Donald Trump spoke of a plan to repeal and replace the ACA, but offered no details.

JFS agencies also receive Medicare and Medicaid reimbursements for the counseling services they provide. According to the Jewish Federations of North America, whose local affiliates provide subsidies to JFS agencies, Jewish communal agencies receive a total of \$6 billion a year from Medicaid, which was expanded under the ACA, as well as \$1.5 billion a year from Medicare, whose coverage for seniors was also expanded.

Uncertainty Troubles

"People are sort of on edge, because there

are a lot of unknowns," said Reuben Rotman, executive director of JFS of MetroWest New Jersey. "We feel it too, and this is all happening very, very, very quickly, so our options for how we can allay that uncertainty are really —we don't even know yet what the true story is."

Even under the existing law, some individuals have had to rely on community support to pay high premiums or get special treatments. Sheryl Grossman, 41, has Bloom syndrome, a genetic disorder that makes her more likely to develop cancer. Grossman has already had cancer nine times, and relies on the support of her community in Baltimore to pay for medicine and doctor's visits.

She has health insurance through a former employer that will last until August. If Obamacare is repealed by the time she needs

to purchase new coverage, she expects an individual plan to be too expensive for her, even with friends' help. If she is without a plan, she'll be forced to move into an assisted living home.

"If I have to go out and try to get an individual health insurance policy, I won't be able to get it because I have a genetic condition that predisposes me to cancer," she said. "People who have pre-existing conditions, a lot of us are facing worse health, if not death."

Repeal would also affect those with disabilities who rely on the law's protections. Jessica Belasco, a rabbinical student at the Conservative Jewish Theological Seminary who has a congenital muscle disorder, wants to do work with Jews with disabilities once she graduates, and expected to rely on Obamacare for insurance while she launches her efforts.

Protection For Vulnerable?

"What I have to offer in the Jewish world is something based on entrepreneurship, and I now do not feel free to do that," she said. "I certainly want to see an outcry in the Jewish world about this."


JFNA is coordinating Jewish leaders nationwide to lobby congressmen to maintain the law's protections, which include preventing those with pre-existing conditions from being denied health insurance, assuring that women don't have to pay higher rates than men and banning caps on lifetime coverage.

A new organization that combines existing umbrella groups for the JFS agencies, the Network of Jewish Human Service Agencies, will also advocate a replacement that maintains care for disadvantaged Americans. Rotman has been named its inaugural CEO.

William Daroff, director of JFNA's Washington office, recognizes that some sort of repeal will likely happen. Despite the extreme partisanship that has characterized the health care debate, he hopes JFNA can get behind a replacement law members of both parties can support.

Continued on page 12

ALBANY



**ENT &
Allergy Services, PC**

Gavin Setzen MD
Lawrence S. Kaufman MD
Siobhan Kuhar MD
Nora Perkins MD
John Gavin MD
Robert T. Adelson MD
Michael Dailey MD
Alexander G. Bien MD
Robert Engle MD

400 PATROON CREEK BOULEVARD - SUITE 205
ALBANY, NEW YORK 12206


518.701.2000

www.albanyentandallergy.com

**ENT & Allergy Care
for Adults & Children**

Pediatric ENT
Nasal & Sinus Disorders Center
Allergy Testing & Treatment
Facial Plastic Surgery
Snoring & Sleep Disorders
Voice, Speech & Swallowing
Hearing Loss, Tinnitus & Balance
Cochlear Implants
Head & Neck Surgery
Skull Vase Surgery
Thyroid & Parathyroid Surgery
CT Scan Imaging Services

Maggie West-Bump RPAC
Donna Silvernail PA-C
Michael Rizzuto PA-C
Andrew Larsen PA-C
Robyn Smith RPAC
Susan Hare MS CCC-SLP
Deanna Ross AuD
Marcia Perretta AuD
Janelle Westbrook AuD
Dana Wilhite AuD
Tricia Doyle AuD



VISION
DEVELOPMENT
CENTER

**Does this sound
like your child?**


Takes HOURS to do homework?
Avoids reading? Smart in everything
except school?

These are just a few of the symptoms of
hidden vision issues that affect 20% of
school children. 20/20 vision isn't
everything!

A complete learning-related vision exam
may give you the answers you are looking
for. Call our office to find out how
we can help.

518-374-8001
Robert S. Fox, OD, FCOVD

1202 Troy-Schenectady Rd • Latham, NY
www.optometrists.org/fox



Find us on
Facebook

Daughter loses life run early: Mother takes on new purpose

By MARILYN SHAPIRO

My husband Larry and I met Judy and Charlie Lynch and their two girls in 1984. It was the first day of Clifton Park's tee ball practice, and our two six-year-olds were assigned to the same team. The parents and our two three-year-olds got to know each other while watching the games. Our son Adam spent most of his time in the outfield picking dandelions. Katie's beautiful red hair couldn't be contained under the maroon baseball caps all the pint-sized players wore.

We Meet Again

In 1987, our families connected again at the Knolls Gang, a local summer swim team. On the first day of practice, our daughter Julie brought over "my new friend," to meet us. The two older siblings remembered each other from tee-ball. The four adults spent the next several years meeting to share conversation and stopwatch duties at the meets.

Larry and I left swim meets behind when Adam and Julie got involved with running. Charlie and Judy continued to breathe chlorine at various Capital District pools as their two girls continued competitive swimming. Our four children shared classrooms and proms and family get-togethers.

Meanwhile, as the years passed, Judy and Charlie became two of our dearest friends. We frequently met for dinner or a movie, a concert at the Saratoga Performing Arts Center, or a leisurely tour of the Clark Museum in Williamstown, Mass.

Change In Plans

Katie was co-valedictorian of the Shenendehowa graduating class of 1996. She went to Drew University on scholarship, where she was the captain of her swim team. In 2000, she graduated with honors, got a job with Ernst Young in New Jersey, and eventually met a man. Friends and family waited expectantly for an e-mail announcing their engagement.

In September 2008, Judy sent out a completely different e-mail with devastating news. "Katie is sick" read the subject line. Katie had been diagnosed with acute myelogenous leukemia (AML), one of the deadliest forms of blood diseases. Because of her gen-

Continued on page 12



JUDY LYNCH



KATIE LYNCH



**OPHTHALMIC
CONSULTANTS**
of the Capital Region



DEATH WITH DIGNITY ALBANY

Advocating and teaching about end of life issues

Many of us have watched loved-ones suffer severe pain and disability as they near the end of their life. Even with pain-reducing medications, they may prefer to hasten their death rather than continue their struggle. Today, in states like California, Oregon, Washington and Vermont, people facing imminent death have the right to ask doctors for medication they can take to end their life on their own terms, and when they choose. In New York State, the legislature is currently considering a law permitting similar medical aid in dying. Moreover, even if we are healthy now, we face decisions about the end of our lives: Do we want life-saving interventions, and if so, what kind? What kind of document will adequately convey our wishes? Have we even thought about these difficult questions and do we know our options?

Death with Dignity-Albany is a grass-roots organization that provides a forum for learning about and discussing end-of-life issues. We also advocate for humane end-of-life practices, including medical aid in dying.

Free public programs feature guest speakers with expertise in legal, ethical, social and legislative aspects of end-of-life matters. These programs also give participants the opportunity to get involved in advocacy for passage of legislation in New York.

Speakers are also available for presentations in the community. To learn more, please visit our website, www.deathwithdignityalbany.org. For further information contact Bonnie Edelstein, director, at bonnie@deathwithdignityalbany.org.

Your vision is precious.

DON'T JUST TRUST ANYONE WITH YOUR EYE CARE.

At **Ophthalmic Consultants of the Capital Region** we understand that having the best vision possible is important to living your life to the fullest. With the latest technology and treatments, over 200 years of combined clinical experience, and board-certified specialists in Retina, Glaucoma, and Neuro-Ophthalmology, **YOU CAN TRUST YOUR VISION TO US.**

- Complete Eye Examinations
- Specialty Cataract Surgery
- Laser Cataract Surgery
- LASIK
- Glaucoma Treatments & Surgery
- Macular Degeneration Treatment
- Retinal Surgery
- Diabetic Eye Disease Treatment

Five Convenient Locations:

Albany, NY

3 Atrium Drive, Suite 100

Clifton Park, NY

10 Maxwell Dr, Suite 103

Schenectady, NY

670 Franklin Street, Suite 101

Schodack, NY

2500 Pond View, Suite 101

Troy, NY

2222 6th Avenue

ADVANCED EYE CARE. HOMETOWN CONVENIENCE.™



MYOCCR.com • 777-2777

ALBANY ENT & ALLERGY SERVICES

Local practice collaborates with patients in treatment of allergies, sleep disorders and surgeries

Albany ENT & Allergy Services is a comprehensive practice devoted to the care of adults and children with disorders of the ear, nose, throat, head and neck. The practice has a particular interest in allergy diagnosis and immunotherapy, as well as sleep disorders, sinus, nasal, and skull base conditions, parathyroid and thyroid surgeries, as well as all surgeries for hearing loss (including cochlear implants), vertigo, and chronic ear disease.

Every patient is unique, and treatment is prescribed based on a thorough evaluation utilizing the most current technological advancements available to attain the best possible healing and recovery for each patient. Albany ENT & Aller-

gy believes in prompt evaluation and educating patients regarding their diagnosis so that each patient can play an active role in the decision making and treatment process.

The practice's clinical experiences have shown them that patients who participate in their own health care decisions are far more likely to achieve an optimal level of healing and recovery. Albany ENT & Allergy's goal is to provide its patients with the necessary tools to accomplish this, as well as complete ENT and allergy care to all their pediatric and adult patients.

To contact Albany ENT & Allergy, call 518-701-2000, or visit the website at www.albanyentandallergy.com.

Obamacare repeal effort...

Continued from Page 10

JFNA is troubled by proposals that "convert these programs into programs that are not as helpful to the vulnerable populations that depend upon them," he said. "So we're working with everyone to ensure that we find pragmatic, bipartisan, common-sense solutions to these seemingly intractable problems."

Daroff said repeal could happen within a matter of months, and noted that Trump favors passing a replacement law immediately. But no one can say for certain what the future will hold.

"You can't dismantle a system where millions of people have coverage in 10 seconds," said Rotman. "Everyone is trying to stay on top of the news."



ROBERT G. SHOSS, MD

Serving the Capital Region for 40 Years!

caring for the skin you're in!

AD ALBANY[®]
DERMATOLOGY

COSMETIC ESTHETIC MEDICAL SURGICAL

2 EXECUTIVE PARK DRIVE | ALBANY, NY 12203 | 518.482.8631

ALBANYDERM.COM

OPHTHALMIC CONSULTANTS OF THE CAPITAL REGION

All About Eyes

Ask an Ophthalmologist

Q. I need to have cataract surgery. I'm farsighted and currently wear glasses. Is it possible to have my vision corrected during cataract surgery so that I no longer have to wear glasses?

A. The recent FDA approval of the TECNIS[®] Symphony Intraocular Lens (IOL) is great news for people with both cataracts and farsighted vision. According to the manufacturer, the Symphony lens is the first extended range of vision IOL to correct presbyopia and improve vision in people with cataracts. The Symphony IOL is designed to correct far, intermediate, and near vision, decreasing the need for glasses or contact lenses for the majority of patients.

The Symphony lens is implanted into the eye during a normal cataract operation. In most cases recovery time is minimal, with patients able to return to their usual routine just 24 hours after surgery. Unlike traditional multifocal lenses, there is a low incidence of glare or halos with the Symphony lens.

I was one of the first cataract surgeons in the United States to implant the new Symphony IOL. Both my patients and I are very happy with the results. I would highly recommend that you have a cataract consultation with a surgeon who is experienced at implanting all types of IOLs.

Q. I have glaucoma. At my last eye exam appointment, my eye doctor told me I have cataracts. How does having cataracts affect my glaucoma treatment?

A. Glaucoma is a progressive disease that damages the optic nerve due to pressure inside the eye that is too high for that eye. Left untreated, glaucoma deteriorates vision and can lead to blindness.

The standard therapies are eye drops, laser treatment, and surgery to either reduce fluid production or increase outflow. If you're taking eye drops, you could continue this treatment if it's found sufficient to control your glaucoma. However, new alternatives, now being offered at Ophthalmic Consultants of the Capital Region, are the iStent[®], a tiny titanium device implanted during cataract surgery that acts like a miniature drainage system to drain the fluid, and Trabectome[®], a device that removes a barrier to the drainage of fluid from the eye.

The iStent[®] and Trabectome[®] offer significant potential benefits for people with mild to moderate glaucoma. In a recent clin-



ALLEN W. ZIEKER, M.D.
& ASHER WEINER, M.D.

ical study, 72% of patients who received the iStent[®] remained medication free after 12 months.

The iStent[®] and Trabectome[®] are minimally invasive, avoiding the risks associated with traditional major glaucoma surgery, and they add only a few minutes to cataract surgery. I also use special intraocular lenses (IOLs) that work well for glaucoma patients. If you have glaucoma and cataracts, it's important to see a glaucoma specialist who is experienced in treating glaucoma and cataracts with advanced technology.

ABOUT DR. ALLEN W. ZIEKER

Dr. Allen Zieker is president and director of cataract surgery at Ophthalmic Consultants of the Capital Region and medical director of the Albany Regional Eye Surgery Center since its inception in 2001. He is a board-certified ophthalmologist with more than 33 years of experience. Working with cataract patients is his passion, performing more than 1,500 cataract procedures every year.

ABOUT DR. ASHER WEINER

With more than 27 years working as an ophthalmologist and glaucoma specialist, Dr. Weiner brings experience, dedication, and personal attention to every patient he treats. He believes in using the most advanced technologies and treatment protocols to help in achieving the best possible outcomes.

ABOUT OPHTHALMIC CONSULTANTS OF THE CAPITAL REGION

Ophthalmic Consultants of the Capital Region offers a comprehensive model of care with experienced specialists, ophthalmologists, optometrists, and opticians who provide patient-centered eye care to the Albany, Clifton Park, Schenectady, Schodack, and Troy communities.

To make an appointment call 777-2777 or visit myoccr.com.

Daughter loses life run early...

Continued from Page 11

eral health and young age, she had at best a 50/50 chance of recovery, and an aggressive medical approach was needed—immediately.

Meeting The Challenge

Katie, always one to accept a challenge, determinedly underwent everything the doctors threw at her: chemotherapy, numerous hospitalizations, painful side effects and biopsies, and countless blood tests, and transfusions.

While Katie was undergoing treatment, friends and family reached out to ask how they could help. Judy, a runner, had heard about Team in Training (TNT) through her many years of running, the flagship fund-raising program for the Leukemia & Lymphoma Society (LLS). LLS is the world's largest voluntary health organization dedicated to funding blood cancer research, education and patient services. TNT volunteers, many who are also survivors, train to complete a marathon, half marathon, cycle event, triathlon or

hike adventure, while fund-raising to support the fight against blood cancers.

In 2009, Judy signed up with TNT to raise money by her participation in the New Jersey Half Marathon. Katie had gone into remission, and Judy regarded the race as a victory lap, with Katie and her now-fiancé scheduled to meet Judy at the finish line. Friends and family, including my family, donated money to LLS in Katie's honor.

Katie would not be there to watch her mother complete the race. The cancer reoccurred, and she was in the hospital preparing for a stem cell transplant. Judy's fund-raising became her fight for her daughter's life. She raised over \$12,500.

Tragically, Katie's positive attitude, her strong will to live, and the undergoing of every conceivable treatment were not enough. Less than 14 months after her diagnosis, the Lynch's beautiful, sweet, intelligent daughter died on Oct. 26, 2009. She was 31.

Continued on page 13

ALBANY DERMATOLOGY

Celebrating 40 years of caring for the skin you're in

Albany Dermatology, open since 1976, is a full-service dermatology practice serving the Capital Region and located in Albany, behind Stuyvesant Plaza. Dr. Robert Shoss and his team of caring professionals provide pediatric, adolescent and adult skin care, including evaluation, treatment and in-office dermatological surgery for all types of conditions affecting the skin, hair and nails. Through a balance of medical, surgical, cosmetic and esthetic services, they develop specialized treatment plans that encompass the latest therapies as well as recommendations for prevention and wellness, all tailored for the individual patient.

If you are considering cosmetic services, Albany Dermatology also offers a range of procedures that enhance the appearance of your specific skin type. Injectable neurotoxins and dermal fillers, including volumizers and hyaluronic acid products, are used in combination to bring back lift and re-contour the aging face. The specialized "Liquid Lift" offers many of the benefits of a surgical facelift without the downtime, pain or expense. We are excited to additionally offer Kybella®; a new

office treatment to reduce fat below the chin.

Intense Pulse Light, also known as a photo-facial, treats brown spots from sun exposure, dilated blood vessels from rosacea, and tightens superficial wrinkles. Lasers are used for hair removal and leg vein therapy is performed using sclerotherapy and the YAG laser. New to our practice - lasers to treat acne scars, moderate wrinkling and pigmentation of the skin. Esthetic services include a VISIA Complexion Analysis, which assesses your skin's health and recommends rejuvenation and treatment, which could include chemical peels, facials and microdermabrasion. All treatments utilize medical-grade products and receive professional assessment of your individual needs.

Over these 40 years, Albany Dermatology has touched the lives of nearly 50,000 people.

Albany Dermatology is proud that its patients trust the practice to provide care for them, and their families, and that they continue to refer its services to others. Contact Albany Dermatology at (518) 482-8631, visit online at albanyderm.com or follow us on [Facebook.com/AlbanyDerm](https://www.facebook.com/AlbanyDerm).

Daughter loses life run early...

Continued from Page 12

Before and during Katie's illness, running had been Judy's therapy, her go-to for coping and figuring things out. After Katie's death, it was her bridge into life without her daughter, a way to move forward and memorialize Katie. She would tell the world about Katie at the marathon, wearing a shirt with her picture, her dates, and messages to fight leukemia, donate blood, and join the bone marrow registry. Immediately after the memorial service, Judy signed up for the 2010 Boston Marathon. A torn hamstring delayed that goal, but she found other races—in Atlanta, in the Capital District, and in 2011, her first Boston Marathon.

Creating A Positive

Judy felt the need for something positive to result from Katie's tragic death. She made a personal commitment to do one event a year for TNT, raising as much money as she possibly could each time.

With Katie as her inspiration, Judy accepted challenges she never previously would have considered. Along with running races ranging from 6.1 miles to 26.2 miles, she expanded her fund-raising efforts to include a triathlon and two one-hundred mile bike rides. This year, Judy will run the New Jersey Half Marathon, where she ran for Ka-

tie the first time in 2009. Her goal this time is to raise \$15,000.

Charlie has been Judy's number one supporter, and he fund-raises for LLS through his Craft Beers for Cures sales. Together, the Lynches have raised over one hundred and one thousand dollars for blood cancer research.

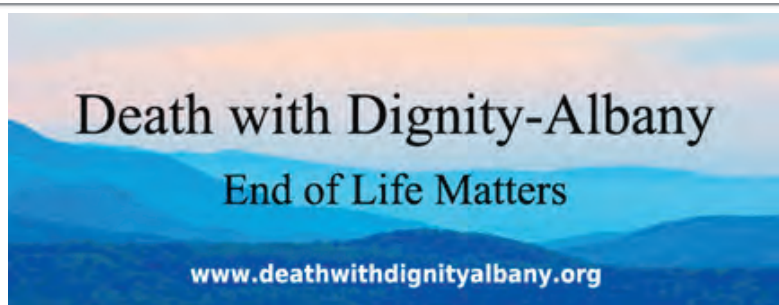
"I run not only for Katie," said Judy, "but also for the fighters, the survivors, those not yet diagnosed, and especially for those whose lives were cut short way, way too soon."

On January 16, Katie would have turned 39. Through their tzedakah—their charity and giving, Judy and Charlie have kept Katie's memory alive not only in their hearts but also in the hearts of their many supporters.

I often think of Katie's determination, courage, and grace under terrible circumstances. I deeply respect and admire my friends for their incredible fund-raising efforts undertaken in memory of their daughter. Their hope is that other families can be spared the devastation of losing a child or loved one.

Information may be found on Judy's webpage at <http://pages.teamtraining.org/vtnt/nj17/JLynch>.

Marilyn Shapiro, formerly of Clifton Park, is now a resident of Kissimmee, Fla.



Advocating for Compassionate and Dignified End of Life Choices for All New Yorkers

info@deathwithdignityalbany.org

This Jewish woman's research...

Continued from Page 9

and Judaism is answering the question of 'why,' and those things aren't in contrast for me. They're very much two sides coming together."

Slusky's first job in the sciences, technically, was as a high school-aged babysitter for the children of a professor of molecular genetics. When he learned that she was interested in biochemistry, he connected her to Dr. Terry Goss Kinzy at Rutgers University, in whose lab she worked for two summers.

From there, after earning a degree in chemistry from Princeton, to further nurture her commitment to Jewish learning she spent a year at the Drisha Institute for Jewish Education on Manhattan's Upper West Side. She then pursued a doctorate in biochemistry and molecular biophysics at the University of Pennsylvania, followed by postdoctoral work at Sweden's Stockholm University and the Fox Chase Cancer Center in Philadelphia. She joined the University of Kansas faculty in 2014.

Creates New Protein

Along the way, Slusky discovered protein design, which is the study — and application — of the relationship between amino-acid sequencing and resultant 3-D protein structures. Shortly after establishing her lab at K.U., while investigating what she calls a "scientifically interesting" question about protein-protein interactions, she created a new protein, but eventually set it aside.

"And then, through conversations with colleagues about antibiotic resistance, I got to thinking, 'I wonder if this protein that I have in the freezer could make bacteria susceptible to antibiotics,'" she recalled. "The whole goal of my work is, instead of making new antibiotics, to make the old antibiotics work like new."

Due to what some consider overprescribing and overuse in agriculture, antibiotics today are present in water and soil, where bacteria can develop resistance. While some resist due to mutation of the bacteria target-proteins or the modification of the antibiotic itself, the broader problem is when an antibiotic cannot reach its target due to something called an "efflux

pump"— essentially a protein that pushes antibiotics right back out through the bacteria's membrane. Slusky's protein disables that pump.

She is not the first to attempt this, but previous efforts have focused on different proteins in the efflux pump, often with toxic results. What distinguishes this protein is that it targets the bacteria's outer membrane — a feature absent from all human cells, which therefore are not vulnerable to unintentional attack. Slusky's protein should therefore be nontoxic and more potent against the bacteria.

The call for applications from the Moore Foundation — established by Intel Corp. co-founder Gordon Moore — came shortly after Slusky's breakthrough. The funds will allow Slusky to expand her lab, while the publicity could garner more interest and resources, helping her establish enough data to ready the protein for clinical trials — and possibly an approved, effective treatment within 20 years.

"Radical Amazement"

Regardless, Slusky knows there is much work ahead — though, of course, not on Shabbat, which she and her family observe. Slusky and her husband, David, an assistant professor of economics at K.U., and their young daughter are active members of their Conservative synagogue in the Kansas City suburbs.

Last Shavuot, Slusky taught a class on Torah and science. Among many topics, she addressed Abraham Joshua Heschel's philosophy of "radical amazement" at the miraculous, natural world around us.

Slusky said it is science that gives her that sense of awe — whether it's teaching informally among the students and researchers on her staff, helping a hall full of undergrads discover biochemistry for the first time, or working alone in the lab.

"The intricacies of protein-protein interactions and discovering new things about them is what fills me with radical amazement, which is a fundamentally religious feeling," she said. "I also believe I have a responsibility to the world, that my obligation is to bear the burden of the other. And if I have the opportunity to do that on a global scale, then that's really exciting."



ATTENTIVE CARE

*A Trusted, Licensed,
CHAP Accredited, locally owned,
Home Health Care Service, Since 1977.*

Available 24 Hours a Day, 7 Days a Week



- Complimentary RN Assessment
- Personal Care with RN Supervision
- Medical and Companion Services
- Most Insurances Accepted
- Medication Management
- Meal Preparation and Feeding
- Assistance Bathing and Dressing
- Assistance with Ambulation
- Competitive Rates
- Hourly, Daily, or Live-in Services

CALL OR VISIT OUR WEBSITE TODAY

(518) 438-6271

attentivecareservices.com

5 Computer Drive West
Albany, New York 12205

Services also Provided in:
Nassau County: (516) 822-2080
Suffolk County: (631) 587-3366



