

A Fan of Caltech Helps Open a New Window on the Universe

The Space Race brought Beverly Hills resident **Merle Kingsley Elkus** to Caltech. Propelled by the launch of Sputnik, a group of women in Los Angeles joined forces to help restore American primacy in science and engineering by supporting outstanding college students. She soon involved herself with the group, Achievement Rewards for College Scientists. Through ARCS, she met Lee DuBridge, then Caltech's president, who in 1964 invited her to join the Associates. She became a President's Circle member and participated in the

the Chilean Andes. This August, a committee of the National Research Council identified CCAT as one of the next decade's priorities in astronomy. The committee recommended an immediate start and an investment of federal funds.

Merle always asked researchers about their work—be they astronomers, geologists, or chemical engineers—and she kept current in several fields. She and her husband, Lewis, provided funds for undergraduate scholarships, graduate fellowships, and postdoctoral study, often through the Lewis A. Kingsley

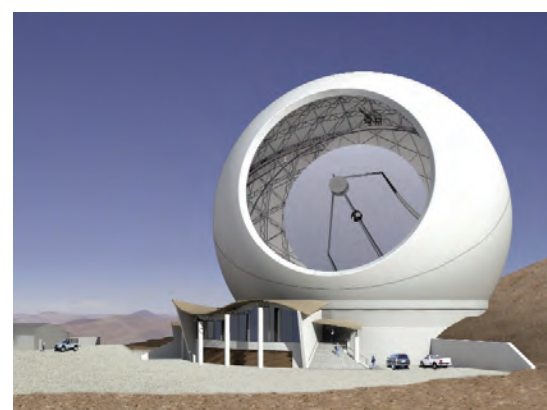
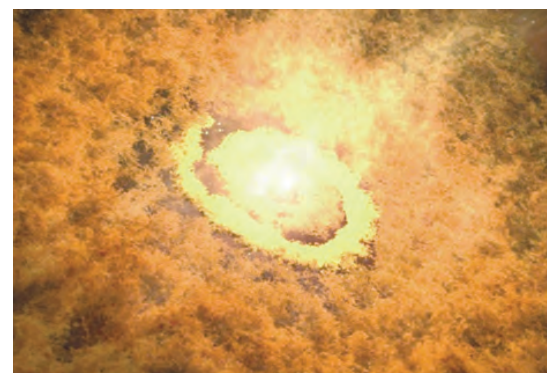
She would have been thrilled to learn that the National Research Council recently called out a project her estate is helping to support as one of the next decade's space-science priorities.

group's lab tours, dinners, and international trips. Her many friends outside of academia soon came to know of her deep interest in Caltech/JPL research, as well as her support of Caltech students and friendships with members of the faculty.

Merle named Caltech as beneficiary of her estate, which is now indirectly supporting CCAT, a next-generation observatory project that would have fascinated her. Caltech and collaborators plan to build this 25-meter telescope in

Foundation. She saw how ideas germinated when researchers and distant colleagues met in person, and she endowed a fund that still pays for visits by distinguished scientists today.

Space science captured her imagination as a result of a fortuitous conversation. In the early 1980s, she and then-Caltech president Marvin Goldberger were chatting about the mission making headlines: Voyager. Marvin asked if Merle would like to meet Voyager Project Scientist **Ed Stone**,



Top/Middle: CCAT will be a 25-meter telescope employing cameras and spectrometers to survey the sky at millimeter and submillimeter wavelengths with the intention of discovering young galaxies, stars, and solar systems. Bottom left: Merle Kingsley Elkus. Bottom right: Merle and Caltech's Morrisroe Professor of Physics Ed Stone at an Achievement Rewards for College Scientists event in 1989.

Caltech's Morrisroe Professor of Physics.

The Stones and Merle immediately took to each other; by then, Lewis had passed away. They liked her travel stories—she had made dozens of trips around the world—and she enjoyed news about the corners of the universe that she couldn't visit. Over the years of their friendship, Ed shared with her

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Caltech Legacies

Frank Gilloon taught civil engineering at Throop College of Technology for just one year, 1919—but that experience was enough to make him a loyal friend for life. By 1987—when Caltech

(as Throop had been renamed) honored Frank and his late wife, **Elizabeth**, for their generosity by naming new graduate housing after them—they had established several Caltech-administered trusts that would support faculty and students, as well as Frank's own family, long after his death in 1994.

As citrus and avocado growers in Del Mar, the Gilloons had built their wealth the old-fashioned way, with frugality, smart investments, and the magic of

compound interest. Today, income from their trusts supports five named professorships, several graduate fellowships, and comfortable life incomes for Frank's niece and nephew. Gilloon professors are developing such innovations as fuel cells that generate clean, efficient energy (Fred Anson), and cheap but highly stable chemicals that may replace antibodies in medical diagnostic tests (Jim Heath)—a winning outcome from any perspective!



Gilloon House was dedicated to Frank and Elizabeth Gilloon in 1987.

Maximize Your Retirement Plan and Support Caltech



Laurence M. Trafton
(BS, '60, MS '61,
PhD '65)

Nowdays, even people who don't consider themselves wealthy can have estates over \$1 million. That's because many don't realize that their taxable estates include all of their assets: real estate, cars, life-insurance policies, art and collectibles, savings and/or brokerage accounts, as well as retirement plans.

And unfortunately for these millionaires, if Congress doesn't act soon, federal estate-tax rates will return to their 2001 levels on January 1, 2011. The result? After the first \$1 million, estate assets will be taxed on a scale that starts at 55 percent and goes up from there.

Prudent planning can soften the blow. One simple strategy is to name a charity or nonprofit organization the beneficiary of your qualified retirement plan. When directly transferred to heirs, retirement accounts are subject to both estate and income taxes. By naming Caltech the beneficiary of your retirement account, however, you receive an estate tax charitable deduction and make a tax-free gift to science, engineering, and education.

Alumnus **Laurence Trafton (BS '60, MS '61, PhD '65)** recently took that step. For him, it was the ideal way to retain the financial security of his retirement account while also expressing his appreciation for the outstanding education Caltech gave him.

As a boy, Laurence was an enthusiastic amateur astronomer, building his own

telescopes and visiting the Palomar and Mount Wilson observatories. These Caltech-operated facilities, including the biggest telescope in the world at that time, so impressed him that Caltech was the *only* college he applied to.

His fascination with the stars and planets endures to this day. Since 1969, he has been a research scientist at the McDonald Observatory and the Astronomy Department of the University of Texas at Austin, investigating processes in planetary atmospheres, including seasonal effects and evolution.

His relationship with Caltech is also an enduring one. A lifetime member of the Alumni Association and a Torchbearer, Laurence credits much of his success to the knowledge he gained at Caltech some 50 years ago. His grati-

tude for the financial aid he received has also convinced him of the importance of funding undergraduate scholarships—such gifts, he feels, give him “the most bang for the buck.” That's why the proceeds from his retirement account will someday establish the Laurence M. Trafton Endowed Scholarship Fund to support students studying astronomy or planetary sciences. Laurence hopes this gift will inspire others to meet with an estate planner or tax advisor to learn how they too can choose philanthropy over taxes by including Caltech in their estate plans.

If you or your professional advisors would like more information about this strategy, please contact Nichole Baker at 626-395-2927 or giftplanning@dar.caltech.edu.

Gifts of Retirement Assets

How It Works

- You name Caltech as a beneficiary of your IRA, 401(k), or other qualified plan.
- After your lifetime, the balance in your plan passes to Caltech tax free.

Benefits

- You can escape both income tax and estate tax levied on the balance left in your retirement account by leaving it to Caltech.
- You can give the most highly taxed asset in your estate to Caltech and leave more favorably taxed property to your heirs.
- You can continue to take withdrawals from your retirement account during your lifetime.
- You can change the beneficiary if your circumstances change.
- You are eligible to become a member of the Torchbearers of Caltech.

How to Make a Gift of Retirement Plan Assets

- Notify and consult your retirement plan custodian and attorney of your wish to name Caltech as the beneficiary of your plan.
- Your beneficiary designation form should contain the following wording: *California Institute of Technology in Pasadena, CA.*
- Notify the Office of Gift Planning of your intent, to insure that proceeds from your gift are used per your exact specifications.



Recognize This Alumnus?

In 1941, before the United States was involved in WWII, he and his father saw the giant Douglas B-19 take off, and watching the bomber fly changed his life. The prototype was then the largest such aircraft in the world, and witnessing its flight fueled the young man's growing enthusiasm for a career in aeronautics.

A gifted high-school student, this alum considered UCLA—until his math teacher proclaimed, “You are going to Caltech.” The advice served him well: he ended up studying at Caltech as an undergraduate and in the Graduate Aerospace Laboratories in the late 1940s and early 1950s.

In 1952 he began working at JPL while completing

his PhD thesis, and was bitten by the space-exploration bug. As a project scientist on the Ranger spacecraft team in the early 1960s, he helped JPL capture high-quality, close-up pictures of the moon's surface, laying the groundwork for the Apollo program.

In 1968, he and his wife, **Beryl Dee**, along with their two children, traveled to Kanpur, India, where he taught at the new Indian Institute of Technology. They spent two exciting years there experiencing another culture.

Returning to JPL in 1970, he joined the Mariner 71 Mars Project, where as Science Recommendation Team chief, he had the honor of naming a distinctive 5,000-kilometer-long canyon “Valles Marineris” and was responsible for getting a 16-inch globe of Mars made.

McRuers' Decision Looks Better than Ever

In fall 1997, *Techniques* talked with alumnus **Duane McRuer (BS '45, MS '48)** and his wife, **Betty**. Duane had retired from Systems Technology, Inc., the internationally recognized research company he'd founded 40 years earlier, and was thinking about the best way to deal with the appreciated securities he had accumulated as a result of leaving STI's employee stock-option plan. Rather than sell the stock (and pay 40 percent capital-gains taxes) or keep it and collect dividends, he decided to invest it with Caltech as a charitable remainder trust (CRT).

Duane passed away in 2007, but the wisdom of that decision lives on, as we learned in a recent conversation with Betty. Setting up the CRT entitled the couple to a tax deduction and provided an income that Duane estimated to be at least double what they'd been receiving as stock

Duane faced—it's a solution that's both philanthropic and practical.

Although she agreed with Duane in 1996 that establishing a CRT would be a good investment, Betty credits her husband with the initial idea. Duane, she says, was inspired by a deep commitment to the alma mater that named him one of its Distinguished Alumni (he received that accolade, the Institute's highest, in 1983). That commitment led him to become a lifetime member of the Caltech Associates, and to serve on its board of directors. Later in his life, he also became interested in supporting the Summer Undergraduate Research Fellowships (SURF) program, encouraged by his good friend Robert C. Perpall (BS '52, MS '56), who had funded both a fellowship and a speaking-contest award for the program. Betty believes Duane



Duane (BS '45, MS '48) and Betty McRuer

After Duane's death, payments from the trust continued automatically, without any additional effort on Betty's part.

dividends. After Duane's death, payments from the trust continued automatically, without any additional effort on Betty's part. She finds the arrangement very helpful, and is convinced that the trust still produces more income than Duane's original stock would have. She recommends a CRT to anyone dealing with the kinds of financial concerns she and

intended to pursue that interest further, but died before he had the chance. Fortunately, his CRT will also address that oversight. When Betty passes away, the remainder of the McRuers' trust will be used to support SURF and other essential programs, ensuring that their generous intentions will be carried out for years to come.

After retiring in 1975, he again traveled abroad, this time for the U.S. Foreign Service. Spending five years in New Delhi and three in Cairo, he completed his government service in Belgrade, Serbia, near his father's birthplace.

This alumnus has also been a very dedicated volunteer for the Alumni Fund, and he and Beryl Dee are active in the Associates' President's Circle and frequently attend Alumni Weekend.

Now the couple is creating a named endowment to be shared by the Division of Biology and GALCIT—another reflection of how highly they regard his alma mater. The proceeds from the charitable remainder trust established by **Thomas Vrebalovich (BS '48, MS '49, PhD '54)** and his wife will ensure that their legacy to Caltech continues for years to come.



Thomas and (BS '48, MS '49, PhD '54) and Beryl Dee Vrebalovich

Gifts by Will

The generosity and foresight of alumni and friends is crucial to Caltech's success. Below are just a few of the many individuals who have supported research, education, and programs at Caltech through their wills.

Irma Gregg McCollum provided for Caltech through an unrestricted bequest of more than \$542,000.

From the estate of **Harold Gladwin**, the Institute has received \$415,400 for its unrestricted use.

Caltech has received \$655,300 from the estate of **Robert E. Osborne**.

The Institute received an unrestricted bequest of \$400,000 from the estate of **Grace E. Holtz**.

Did You Know?

Caltech has been ranked number two among the world's top 200 universities in the annual *Times Higher Education* World University Rankings, whose 2010 edition was released September 16. Caltech vaulted into second position from last year's tenth-place showing as a result of significant changes in the survey's methodology.

The London-based magazine, which published its first global university survey in 2004, has Harvard in the number-one spot, followed by Caltech. MIT, Stanford, and Princeton round out the top five.

Save the Date: Earnest C. Watson Lecture Series

This season's Earnest C. Watson Lecture Series will kick off on Wednesday, October 27, 2010, with "Rising Mountains and Sinking Oceans: Earthquakes That Shape the Earth." **Jean-Philippe Avouac**, professor of geology and director of the Tectonics Observatory, will describe the combination of modern space techniques with more traditional geological techniques and field observations, which sheds new light on the physics of earthquakes and on how they relate to rising mountains and sinking oceans.

To learn more about the Earnest C. Watson Lecture Series and future events, please visit events.caltech.edu/series. Visit Caltech's Streaming Theater page today.caltech.edu/theater to view past lectures.

Contact Us

For more information about the stories featured in this issue of *Techniques*, or for other questions about deferred gifts, please contact the Office of Gift Planning:

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discoveries made with the Voyager spacecraft, the W.M. Keck Observatory, and 15 missions he oversaw as director of JPL.

Though Merle passed away in 2007, her legacy still helps Caltech faculty and students pursue exciting questions. Her estate gift seeds new projects in astrophysics and space science through the Merle Kingsley Endowed Fund and also supports chemistry graduate students. It also established the Merle Kingsley Professorship in Physics.

This new professorship was awarded to **Jonas Zmuidzinas**, who is Caltech's project scientist for CCAT. Jonas co invented the cameras and spectrometers CCAT will use to help unravel the cosmic origins of stars, planets, and galaxies. The tel-

escape will survey the sky at millimeter and submillimeter wavelengths to reveal young galaxies, stars, and solar systems enshrouded in clouds of dust that make these objects very faint or invisible at other wavelengths.

As an undergraduate who worked with Ed Stone and Robbie Vogt at the start of the Voyager mission, Jonas got his start in astronomy in the same place and at the same time as Merle. Who would have guessed then that three decades later her support would help him open a new window onto the universe?



Jonas Zmuidzinas (BS '81), Merle Kingsley Professor of Physics

Introducing Debbie P. Bills and Allyson B. Simpson

Debbie Bills has served as Caltech's manager of trusts and bequests since August 2009. She manages all matters related to existing charitable trusts and annuity accounts at Caltech and is the point of contact for estate settlements. Previously, Debbie directed the gift-planning program at the Webb Schools and was associate director of gift planning at Claremont Graduate University. She earned her BA at Pomona College and is a certified specialist in planned giving.



Debbie P. Bills

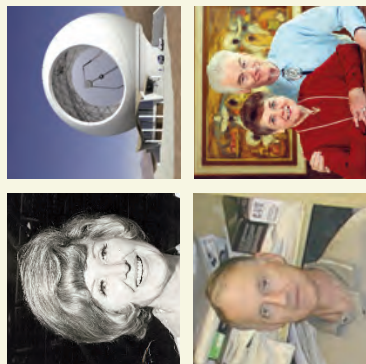
Allyson Simpson joined Caltech in May 2010. She provides alumni and friends with information about gift-planning opportunities at the Institute, including gifts that offer life income. Formerly, she directed the planned-giving programs at Cedars-Sinai Medical Center and Scripps College.



Allyson B. Simpson

Allyson received both her BS and JD from USC and spent several years as a practicing attorney. She is an active member of the California Bar Association.

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Recognize This Alumnus?

A strong man on the debating squad...started Tech in '44...joined the Navy and saw the world in easy stages, returning here in '46...planned to give his services to an aircraft company after a few years of grad school.

See inside for more.



Photo courtesy of Big T

Class of '48

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