

J. Robert Oppenheimer Memorial Committee

Fall/Winter Newsletter 2023

The J. Robert Oppenheimer 2023 Memorial Lecture

by Carolyn Mangeng

Our 50th Memorial Lecture speaker last June was Dr. Jennifer Lewis, a world-renowned expert in

3-D printing, or digital fabrication. She is the Hansjörg Wyss Professor of Biologically Inspired Engineering at Harvard University, a member of the National Academy of Sciences and Engineering, and author of more than 150 publications.

Over the years Lewis and her multidisciplinary team of 30 postdocs and graduate students have developed breakthrough technologies in microscale printing by integrating both form and function into their



design. Key to her team's success is its research in printable, viscoelastic inks as well as incredibly complex print nozzles. She compared the rate that a nozzle can switch printing inks to the wingbeat of a hummingbird—about 50 Hz or 50 times per second.

Recent results of the team's efforts include a lithium-ion battery that is small enough to fit around the tip of a pencil. Their work on soft electronics is applicable to smart fabrics and smart sensors as well as flexible robots. Lewis's video of robotic feet carrying flasks across the lab bench was fabulous, and her discussion of human tissue applications was breathtaking. Her team integrated advances in stem-cell research and human tissue microstructure to produce beating myocardial (heart) tissue. She warned that entire printed organs, such as kidneys or hearts, are many years and tests away but that these tissues they can produce from a patients' own stem cells could be useful for organ repair and early drug testing. If you missed this lecture, watch it at

jromc.org/video-recordings.

The date and speaker for the 2024 Memorial Lecture will be announced in a few months.

Two Pillars of JROMC in Memoriam

by David Izraelevitz

Art Freed joined the JROMC in 1972 and served as Chair and Secretary, but his most long-standing leadership role was as Archivist, a role he enjoyed and excelled at given his long career as LANL's head librarian and group leader. As the JROMC Archivist, Art served as custodian of a large collection of photographs of the Oppenheimer family, given to the Committee by Kitty Oppenheimer. Some of these photographs have been



featured in articles, books, and films about JRO.

One of Art's many contributions was leading the effort to curate an exhibit of photographs from our collection and other sources to celebrate the 100th anniversary of Oppie's birth. The exhibit traveled locally and to Oak Ridge, and it was displayed again at the Los Alamos History Museum in 2018. Art's generosity toward the Committee included funding a scholarship in memory of his wife, Nancy. It is awarded yearly to a Los Alamos High School (LAHS) senior for outstanding academic achievements.

Leon Heller joined the JROMC in 1997, served several terms as Chair and Vice-Chair, and was a long-time member of the Los Alamos High School Scholarship Subcommittee. He particularly enjoyed interviewing scholarship finalists, asking them thoughtful questions that put the students at ease while opening a window into their personality, aspirations, and interests. Leon was also very proud of the quality



of lecturers that the Committee attracted for its annual event and challenged the Committee to invite the best and brightest in their field. In memory of his wife, Rosalie, Leon funded a scholarship that is awarded yearly to a student from LAHS with an exceptional academic record and who has demonstrated a significant interest in classical music.

The generosity and dedication of Art and Leon are an inspiration to the JROMC; they will be missed by all of us.

Thanksgiving

At this time of thanksgiving, we thank you, our generous donors. We also thank Larry Sheffield, New Mexico Realty Group—Los Alamos, Aimee Slaughter, SALA, Los Alamos County's Team Oppie staff, Christopher Nolan, and others for shining the spotlight on Oppenheimer this year. And we thank Tim Rieser and Jennifer Granholm as well as all others involved in finally vacating the unjust decision to revoke Oppenheimer's security clearance.

JROMC Awarded 15 Scholarships This Year

The J. Robert Oppenheimer Memorial Committee granted its first scholarship 39 years ago, in memory of Oppenheimer. Since then, JROMC has granted scholarships ranging from \$1000 to \$4500 each to 291 graduating seniors at Los Alamos, Pojoaque, Capital, and Santa Fe high schools. This year's scholarships, totaling \$47,000, brought the grand total to \$753,000 awarded to exceptional students.

Scholarships are granted to graduating high school seniors based on merit and recognize a variety of achievements. Our scholarship program is supported by several limitedterm endowments, corporate and charitable partners, and numerous individual donors like you.



Yeanwoo Park



Madelyn Crotzer







Isaac Gao



Ouinton Geller



Violet Henderson



Ming-Yuan Lo



Isel Aragon Miramontes





Leslie Garcia Sosa



Nathaniel Steiger



Lucas Blakeslee



Jacob Mirabal



Justin Mirabal

Our Varied Scholarships

The Committee's newest scholarship is in memory of Richard C. Swenson. Funded by his wife, Vivien Chen, it was awarded for the first time in 2023 to an LAHS senior with outstanding achievements and promise in physics, math, or sciences. Ming-Yuan Lo was the first recipient. (See his note below.) JROMC's oldest scholarship is the J. Robert Oppenheimer Memorial Scholarship, which has been awarded yearly since 1984. Other named scholarships include ones in memory of Satch Cowan, Rosalie Heller, Nancy Laubach Freed, Nicholas C. Metropolis, and Michael Williams.

Hawkins Scholarship Is About to End. Without additional funding, the scholarship in memory of Houston T. (Terry) Hawkins will end in 2024. It is awarded to a student at a regional high school who demonstrates an interest in pursuing a career in basic or applied physical sciences, life sciences, mathematics, or computer science and who demonstrates exceptional promise of future contributions to society.

Funding of Scholarships Varies. Although most of the named scholarships are privately funded by a family member, one is funded by the LAHS Class of 1970, one by the Delle Foundation, and two by the New Mexico Consortium. The scholarships funded by the Consortium are designated for a student from a regional high school and from LAHS who plan to attend a New Mexico school of higher education.

Anyone may create a named scholarship by donating a minimum of \$10,000. And anyone may make a donation of

any size to a specific scholarship or to the entire scholarship program. Please contribute so that we can continue to recognize exceptional students. Go to jromc.org/donate, use this QR code, or mail in the form on the back page of this newsletter.



JROMC Lecture Series

In addition to the annual Memorial Lecture, this year the Committee cosponsored several additional talks. Videos of these talks are available at jromc.org/video-recordings.

- July 10 Oppenheimer and Strauss by Jack Shlachter, cosponsored by the Los Alamos Jewish Center
- October 2 History of Skiing at Los Alamos by George Lawrence, former President the Los Alamos Ski Club, cosponsored by the Southwest Freeride Series
- October 30 The Science of Visual Effects in Film and Television by Steve Preeg, cosponsored by the Los Alamos Public Schools Foundation (no video)

Where Are They Now?

Excerpts from Letters

By Filippo Delzanno, 2021 Scholarship Winner

After graduating from LAHS in 2021, I enrolled in the College of Creative Studies at UC Santa Barbara to get a degree in physics. This program is different from a usual university physics program, in that it focuses on teaching physics primarily through discussion and group problem-solving, rather than



individual study. I am currently researching with Dr. Joseph Incandela and the UCSB Light Dark Matter Experiment on the search for dark matter particles. I have been given the opportunity to complete my general education credits abroad, and so I will be spending August to December studying at Thammasat University in Bangkok, Thailand!

Winning the JRO Scholarship meant much more than just a financial bonus to me. While I was very grateful to the scholarship committee for funding part of my education, I was even more honored to join a group of Oppenheimer Scholars stretching back to 1984! I fondly remember attending Memorial Lectures while I was a student at LAHS, and I am proud to be able to extend my relationship with the Memorial Committee as a scholar, and not just an enthusiastic student. The legacy of Dr. Oppenheimer is noteworthy and particularly felt by students from Los Alamos. Here at Santa Barbara (and in Thailand), I hope to extend the spirit of the Oppenheimer Scholarship, and of Dr. Oppenheimer himself, as I continue to grow as a physicist and as a scholar!

By Ming-Yuan Lo, 2023 Scholarship Winner

I am writing to express my heartfelt gratitude for being awarded the new J. Robert Oppenheimer Scholarship in Memory of Richard C. Swenson. Receiving the scholarship has been a wonderful blessing. It has helped my financial situation, and your generosity has motivated me to continue to strive for excellence. I feel honored to



represent JROMC and to serve the community around me, both in Los Alamos and Los Angeles.

I have been attending UCLA to study mechanical engineering. From mathematical and physical systems to meeting new people and new experiences, I feel like I have grown as a person just from the first few weeks of school. In the future, I hope I can invent nanotechnology to support environmental sustainability or cure deadly diseases. Once again, I am greatly appreciative for your invaluable generosity and support. I will be forever grateful for your investment in my future!

Look for JROMC at Los Alamos Events

The JROMC participates in community events throughout the year, including Earth Day at PEEC in April, at ChamberFest in June, and at ScienceFest in July. This year the Committee also participated in the eclipse event at LAHS and the scarecrow contest in October. Here's our entry (Into the Woods to Build a Lab) in the Los Alamos Mainstreet and the Arts Council's 22nd annual Scarecrow Contest.



From the Archivist's Closet

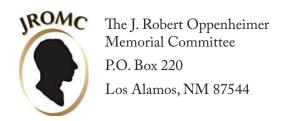
Many of you know that Kitty (née Puening) Oppenheimer gave the JROMC two photo albums for safekeeping back in 1972. One of those albums has photos of Robert Oppenheimer as a child and photos from their years together; the other contains Kitty's photos before JRO. With all the hoopla surrounding the Oppenheimer film by Christopher Nolan, the JROMC has had a lot of requests to use copies of those photos, mostly for documentaries, some books, the usual things you'd expect. However, one request came



from a Pittsburgh reporter, Jon Silver, who decided to pull a different thread for his story.

Because Kitty spent her childhood in Aspinwall, PA, a borough of Pittsburgh, Silver contacted the JROMC to see if we had any early childhood photos of her. Indeed we did, and after numerous emails he selected several for his article. In it you'll see some of Kitty's photos from the JROMC Archives that have been in archival storage for many years now. You can read the article at the following URL. Be sure to include all the hyphens!

https://triblive.com/local/oppenheimer-hype-pittsburgh-connections-to-the-atomic-age



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