

**HMRI's history of innovation**

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# A Message from our CEO



HMRI has always been an unusually nimble research organization with an outsized impact on biomedical science and human health. Since its founding in 1952, it has enabled talented researchers to seek creative solutions to complex medical problems—and they have succeeded on many fronts. We are pleased to share highlights of our history in this issue of *Insights* and to invite you to celebrate our 70th anniversary on our campus on December 3 (details on back cover).

Today, we are building on this history and pursuing an ambitious vision: to become, within 10 years, one of the leading independent biomedical research organizations in the United States by linking our scientific discoveries with improvements in human health outcomes.

The HMRI board of directors, scientists and administrative staff have articulated a new mission that recognizes our history, our current strengths and our potential:

*HMRI advances scientific discovery through innovative biomedical research to improve health outcomes and inspire the next generation of scientists.*

For the first time, our mission statement incorporates our goal to train young scientists, though we have offered educational opportunities for half a century. The Boswell Postdoctoral Fellowship Program, featured on page 8, demonstrates the ways HMRI has long made an impact on biomedical research through education, while our new high school STEM program shows our potential to scale our impact more broadly.

As we grow our research capacity and our educational programs, we are especially grateful to supporters like you and Joseph and Patrick Chang, featured on page 10. To achieve our vision, we will seek to engage with more partners who can provide financial assistance and help raise community awareness of HMRI's impact. With your help, we will celebrate many more groundbreaking discoveries in our focus areas of cardiovascular, neurovascular and neuroscience research.

Julia E. Bradsher, PhD, MBA  
President and Chief Executive Officer

HMRI | Huntington  
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Institutes

## Insights

FALL 2022

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## HMRI welcomes new administrative staff



*HMRI's scientific mission is supported by accomplished administrative professionals. This year, as pandemic restrictions eased, we were delighted to welcome several new staff to our team. Meanwhile, we bid farewell to Susie Berry, vice president of development, who retired in October after six years of service to HMRI.*



**Gabriel Rincon, chief financial officer and treasurer**, joined HMRI in July, bringing 17 years of executive experience and a strong track record in corporate finance, maximizing returns and optimizing resource utilization. Accustomed to thinking big, he has already set his sights

on bold goals for HMRI. "As the CFO and treasurer, I plan to help double our organization's size in the upcoming years so it can have an even greater impact in the scientific community and make life-saving discoveries that go beyond what is imaginable today," he says.

Previously, Rincon was global director of finance and accounting at the Academy of Motion Picture Arts and Sciences. He played a key role in building and starting up the Academy's new museum. Before that, he oversaw multi-million-dollar federal, state and local contracts as controller at Kiewit, one of the largest construction and engineering firms in North America.

As HMRI's CFO, Rincon directs the organization's accounting practices, budgeting and financial analysis, and regulatory compliance, among other responsibilities. He aims to expand HMRI's research capacity by increasing revenue, lowering expenses and streamlining systems and processes. "One of my strengths is finding ways to remove obstacles that could create speed bumps for researchers in their scientific discovery and innovation," he says.

**Claire Arakelian, development coordinator**, came to HMRI from Caltech, where she served as a development assistant. She has more than six years of development experience and a master's degree in public administration from the University of Southern California.

**Lesley Bain, human resources manager**, has been assisting mission-driven nonprofits with developing human resource strategic plans and best practices for the past eight years.

**Hector Frausto, director of information technology**, was previously vice president of information technology at Fox International Channels, where he was involved in the strategy, planning, implementation, security and operations of information technology initiatives. He also served as chief technology officer for CyberShield Global, LLC.

**Anita Isaghulyan, lead senior accountant**, worked as an auditor for 11 years before joining HMRI as a key member of the finance team.

**Jayanthi Iyer, manager of grants and contract accounting**, brings more than 15 years of experience working at major universities and hospitals in research administration.

**Rajinder Kumar, senior accountant**, was fiscal manager at Granada Hills Charter School before joining HMRI. He has 22 years of experience in accounting and finance in the for-profit and nonprofit sectors.

**Adrienne Rodriguez, front desk receptionist**, grew up in the San Gabriel Valley and worked for 13 years at 3D Investments, a family-owned real estate company in Beverly Hills. ❖

## A Timeline of Selected HMRI Innovations



### 1950s

- Cerebrospinal fluid (CSF) shunt system for hydrocephalus
- Retractable seat belts and other car safety features that prevent head injuries



### 1960s

- Scientific evidence that smog harms lung cells
- Removing tumors with lasers



### 1970s

- High-speed cinematography for visualizing coronary vessels
- Growing first immortalized prostate cancer cell lines for research



### 1980s

- Magnetic resonance imaging as a diagnostic tool in medical practice
- Huntington helix electrode for treating epilepsy through neural stimulation



### 1990s

- Culturing human tissue and tumor cell lines in a microgravity bioreactor for cancer research and diagnosis



### 2000s

- Magnetic resonance spectroscopy perfected for diagnosing brain and heart conditions



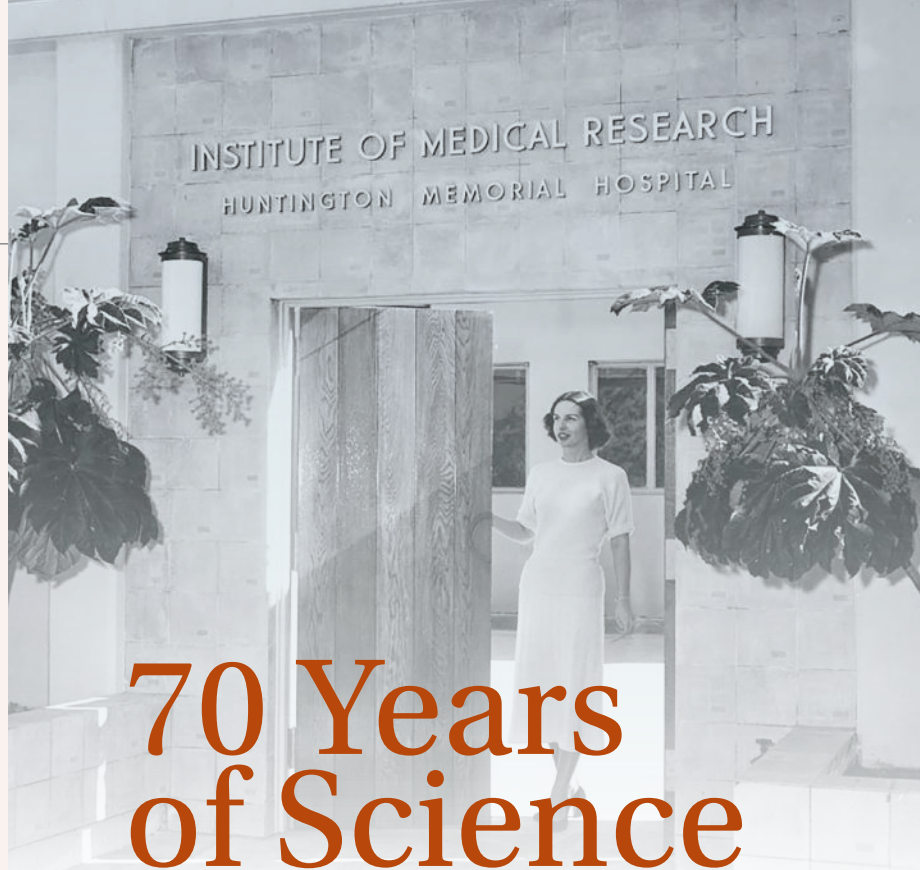
### 2010s

- Non-invasive methods for pre-symptomatic detection of Alzheimer's disease



### 2020s

- Endothelial cell therapy for psychiatric disorders (preclinical experiments)
- Therapies to decrease the size of heart attacks (preclinical experiments)



# 70 Years of Science

*Discoveries at HMRI have transformed medicine and saved millions of lives*

Each time you pull and fasten your car's seatbelt, you're using a life-saving innovation that originated at HMRI. When you look up and see bluer skies, it's because HMRI discovered and reported the dangers that smog poses to our lungs. And, if you've ever had a medical condition diagnosed through magnetic resonance imaging, you can thank HMRI for the widespread availability of that technology.

For 70 years, the research facilities we know today as Huntington Medical Research Institutes have generated innovations that transformed the way people around the world protect their well-being and improve their health. Today, HMRI researchers are exploring new therapies and diagnostic methods that may transform the way we care for our hearts and brains.

HMRI began as an outgrowth of two separate institutes: Pasadena Foundation for Medical Research, established in 1952, and the Institute of Medical Research of Huntington Memorial Hospital, founded in 1953. The establishment of a third in 1961, the Neurovascular Research Foundation, formed a triumvirate in Pasadena. Over the course of three decades, a series of mergers among these organizations resulted in the birth in 1982 of HMRI as we know it today.

The institutes that became HMRI shared a simple but profound goal: "to pursue applied medical research to bridge the gap between fundamental scientific research and bedside application," says William Opel, PhD, who served as executive director and president of HMRI from 1975 to 2014. HMRI continues this aspiration today.

## Early lifesaving discoveries



Robert Pudenz

Two important advances at the institutes began saving lives almost immediately in the 1950s. Robert H. Pudenz, MD, developed the cerebrospinal fluid shunt valve system for hydrocephalus, or “water on the brain,” a relatively common neurological disorder in which an excessive amount of cerebrospinal fluid accumulates in the ventricular cavities of the brain, resulting in enlargement of the head.

The Pudenz valve system is still commonly used today.



Hunter Shelden (second from right) and Robert Pudenz (right) in HMRI lab

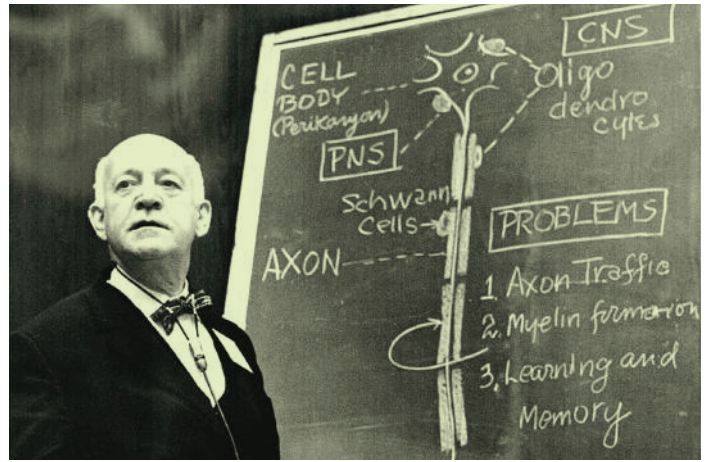
C. Hunter Shelden, MD, conducted research and treatment of head injuries resulting from automobile accidents. His work led to safety features that have saved millions of lives—retractable seatbelts, recessed steering wheels, reinforced roofs, roll bars, door locks, seatbacks and airbags. In 1959, Congress required all cars to meet the safety standards recommended by Shelden.

## A groundbreaking lung study



Donald Rounds

The 1960s continued the institutes’ tradition of trailblazing discovery. A collaboration between Donald E. Rounds, PhD, and Charles M. Pomerat, PhD, resulted in the first scientific evidence that human lung cells exposed to smog undergo changes characteristic of early-stage cancer. “The experiments show there are sufficient carcinogens in the atmosphere to trigger the initial steps toward malignancy,” said Rounds. Their research provided the critical link between smog and lung cancer.

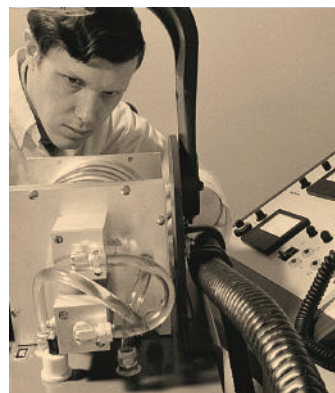


Charles Pomerat

In 1969, Richard J. Bing, MD, joined HMRI and helped develop high-speed cinematography of coronary vessels, enabling him to study the chemistry of the heart after a heart attack. His research contributions are legion, including discoveries in cardiology, cardiac metabolism, cardiac catheterization and congenital heart disease. One of his most notable accomplishments was to introduce a technique for measuring cardiac blood flow using nitric oxide.



Richard Bing



A surgical ruby laser in 1966

## Pioneering laser technology

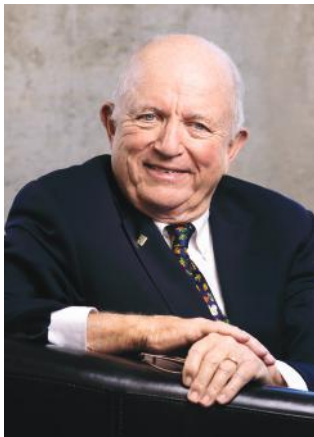
Starting in 1963 and continuing into the 1970s, HMRI began experimenting with laser beams for use in the surgical removal of tumors. “Don Rounds understood that it wasn’t being able to burn things up that really mattered, but that at lower intensities the laser energy could be medically useful,” Opel explains.

Since then, the medical community has found myriad uses for laser technology, including shrinking or destroying tumors, preventing blood loss by sealing small blood vessels, refractive eye surgery, dental procedures, dermatological treatments and more.



► *“We were among the first teams to identify organ-specific markers in human epithelial cells in single cell culture.”*

—Lawrence W. Jones



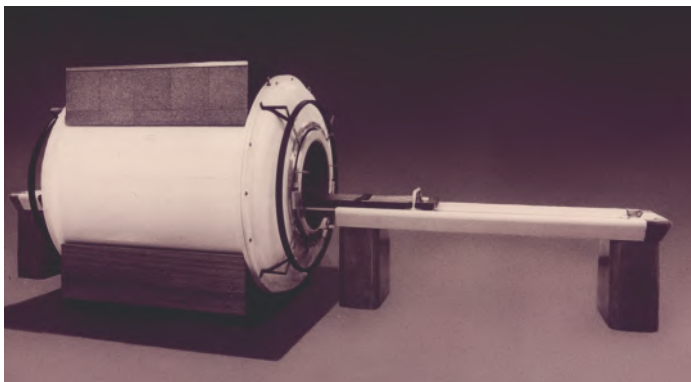
Lawrence Jones

Also in the 1970s, scientists in the HMRI cell culture laboratory conducted early research into prostate cancer cells. “We were among the first teams to identify organ-specific markers in human epithelial cells in single cell culture,” says Lawrence W. Jones, MD, former research professor and current member of HMRI’s Board of Directors. “We successfully grew immortalized lines of

tumor cells originating in human prostate cancer, including the immortal cell line PC-3. These cells are now widely used to test new prostate cancer drugs.”

### **The modern era begins**

In 1982, a final merger of research institutes gave birth to the modern era of HMRI. During this era, HMRI researchers pioneered the use of powerful magnets in medicine, the precursor to magnetic resonance imaging (MRI). They conducted comparative studies of computer tomography versus MRI, contributing to the regulatory approval of magnetic resonance for medical imaging.



*HMRI pioneered the use of MRI in medical practice.*

“Our role was to recognize and demonstrate how MRI had actual value in medical practice, especially persuading radiologists that it was not just a physicist’s complicated, exotic toy, which was what almost all initially believed,” Opel says. “Part of our strength was the advisory team we developed, including leaders from Oxford, Bell Labs, Caltech, Harvard and UCSF. We were the ‘go to’ program for magnetic resonance training.”

Brian D. Ross, MD, director of HMRI’s Magnetic Resonance (MR) Laboratory, trained many postdoctoral fellows in magnetic resonance spectroscopy (MRS), which employs MR technology to detect tissue chemistry. He developed an important technique for MRS analysis of the brain, and his lab demonstrated MRS’s value as a sensitive diagnostic tool for brain tumors, dementia, stroke, encephalopathy, head trauma, epilepsy and more.



Brian Ross



Douglas McCreery and William Agnew

Meanwhile, HMRI researchers William F. Agnew, PhD, Douglas B. McCreery, PhD, and others were leading the way in the field of neural engineering, developing and testing systems for electrical stimulation of the brain and nerves.

Physicist Leo A. Bullara invented the Huntington helix electrode, which has been implanted on the vagal nerves of thousands of patients to treat epilepsy.

### **The heart-brain connection**

In 2018, HMRI moved from two separate Pasadena locations at Fairmount Avenue and El Molino Avenue to its current biomedical facility on South Fair Oaks Avenue, bringing its scientists and staff under one roof. Around the same time, HMRI’s research agenda—guided by Robert A. Kloner, MD, PhD, chief science officer—came to focus mainly on cardiovascular disease, neurosciences and the heart-brain connection.



Robert Kloner

The move helped to usher in a new era of collaboration among the scientists, says Alfred N. Fonteh, PhD, associate research professor of neuroscience. “When I came to HMRI in 2001, the researchers were not collaborating as much due to working at different locations,” Fonteh says. “The new facility brought everyone together, and with the emphasis on the heart-brain connection, there’s a natural inclination for people from different departments to work together.”

HMRI completed construction of its new building at 686 South Fair Oaks Avenue in 2018, with generous support from individual donors. The building features leading-edge laboratory facilities for research in the areas of neuroscience, cardiovascular disease and the heart-brain connection, as well as for scientists conducting liver and colorectal studies.



Alfred Fonteh

Studies now underway at HMRI may soon lead to new ways of managing diseases of the heart and brain. These include investigations of biomarkers that may predict an individual's risk of Alzheimer's disease before symptoms occur—which could help stop or slow the onset of the disease—and research on therapies to reduce the size of heart attacks and increase the chances of survival.

***“The new facility brought everyone together, and with the emphasis on the heart-brain connection, there's a natural inclination for people from different departments to work together.”***  
—Alfred N. Fonteh

There are deep connections between mental illness and coronary heart diseases (CHD), and evidence that one may lead to the other. Scientific studies have shown a higher prevalence of mental illness in CHD patients. Conversely, people suffering from mental illness seem to have an increased risk of CHD. HMRI is at the forefront of research on the mechanisms of the heart-brain connection that lead to mental illness. Research conducted by Anju Vasudevan, PhD, chair and scientific director of HMRI's Department of Neurosciences, may someday make it possible to prevent or treat mental illness with therapies that repair blood vessels and rescue neurovascular interactions in the brain.

## **Training the next generation of scientists**

In addition to scientific discovery, HMRI has a long history of providing research opportunities for postdoctoral scientists and training undergraduate and graduate students. In 2021, it added a new Science, Technology, Engineering and Mathematics (STEM) Program for high school students (described on page 9).

“HMRI welcomed postdoc and student researchers for most of its history,” explains Nicole H. Purcell, PhD, scientific director of education programs, who joined HMRI last year. “But now we're developing more structured educational experiences and seeking more funding for these programs. We're teaching research methods to students who are learning in a science lab for the very first time. We want HMRI to be recognized as a destination of choice for the next generation of scientists.”



Nicole Purcell

## **Looking to the future**

Building upon the accomplishments of past leaders, HMRI's current president and CEO, Julia E. Bradsher, PhD, MBA, along with a distinguished and active board of directors, has strengthened HMRI's reputation as an independent biomedical research organization. They aim to grow its research capacity over the next decade.

“We have passionate, world-class scientists. They have the ability to shine here and the freedom to think creatively about complex medical problems,” Bradsher says. “We're celebrating 70 years of groundbreaking science and we are not done yet. We have many more important discoveries in our future as we grow and continue to develop as a leading research institution.” ❖



## Mentorship and collaboration shape the Boswell Fellowship

The James G. Boswell Foundation Endowed Postdoctoral Fellowship, established in 1974 through the generosity of the James G. Boswell Foundation, offers early-career scientists a joint appointment at Caltech and HMRI in order to investigate scientific questions and drive breakthrough medical therapies. It's a beneficial partnership. Boswell Fellows receive generous funding, lab space and equipment, personal mentorship by senior scientists, and ample opportunity to participate in seminars and conferences. "The Boswell Fellow position helps a young scientist develop the skills, expertise and confidence necessary to become an independent researcher and emerge as a leader," says Anju Vasudevan, PhD, chair and scientific director of HMRI's Department of Neurosciences and chair of the Boswell selection committee.

HMRI researchers, in turn, benefit from the postdocs' fresh perspectives on complex biomedical conditions. "Fellows should be curious, creative, persistent and bold—not afraid to ask new questions or to explore unknown territory," Vasudevan says. Collaboration with Caltech faculty rounds out the equation: the current Boswell Fellow, Veronica Hubble, is developing brain-penetrant small molecules for the treatment of migraine by combining expertise in synthetic chemistry and neuroscience with guidance from Caltech chemistry professor Brian Stolz, PhD, and Alfred Fonteh, PhD, associate research professor of neuroscience at HMRI.



Anju Vasudevan chairs the Boswell Postdoctoral Fellowship selection committee.

Alumni of the program have forged successful scientific careers, often continuing to conduct research with HMRI mentors.



"The James Boswell Postdoctoral Fellowship offered an excellent collaborative opportunity, and I was fortunate enough to be co-mentored by Drs. Shinsuke Shimojo from Caltech and Xianghong Arakaki from HMRI," says **Shao-Min (Sean) Hung, PhD**, whose studies center on

understanding human vision and implicit processing—that is, cognitive processes that happen on an unconscious level. He completed his doctorate in cognitive neuroscience at Duke-NUS Medical School in Singapore in 2017 and accepted the Boswell Fellowship with HMRI in 2018. "HMRI offered a clinical and translational science perspective, which fundamentally shaped my research program. It is extremely valuable to see my research reach out to have a real-world impact."

This fall, Hung started a new position as an assistant professor at Waseda University in Tokyo, Japan—an important step in his continuing investigations of how human sensory systems extract and utilize perceptual information.

*"The James G. Boswell Foundation is proud and grateful to help build a relationship between HMRI and Caltech and to support the outstanding work being done. This program brings the brightest minds in science, mathematics and engineering together with expert medical researchers to create practical applications that improve and save lives. To see that kind of real world return on philanthropic investment is immensely inspiring."*

*—Cameron Boswell, Vice President, James G. Boswell Foundation, and Board Member, HMRI*





**Niema Pahlevan, PhD**, a Boswell Fellow from 2014 to 2017, now holds a joint appointment at the University of Southern California (USC) as Gordon S. Marshall Early Career Chair in Engineering, assistant professor of aerospace and mechanical engineering, and as assistant professor of

medicine. He also is principal investigator in the Medical Flow Physics Laboratory at the USC Michelson Center for Convergent Bioscience, where he models the biomechanics of cardiovascular and cerebrovascular systems. And he remains a visiting scientist at HMRI.

“Our ultimate goal in each research initiative is to use mathematical and engineering principles to establish new techniques and/or devices that are relevant for practicing

clinicians,” he says. For example, Pahlevan and colleagues at Caltech developed an iPhone app that enables doctors to compute left ventricle ejection fraction from the carotid pulse, with accuracy comparable to cardiac MRI, as shown in a clinical study at HMRI. Another smartphone-based system measures arterial pressure waveform and phonocardiogram. Both of these simple, non-invasive tools provide clinically relevant information for various cardiovascular diseases.

Pahlevan has produced three dozen journal publications and has recently been granted the National Science Foundation CAREER Award, the USC Viterbi Junior Research Award and the American Heart Association Career Development Award. “My time as a Boswell Postdoc Fellow greatly influenced my career,” Pahlevan says. “When I graduated from Caltech with a PhD in bioengineering, my knowledge about clinical research was very limited; I got most of my training in clinical research from HMRI.” ❖

## Summer programs train tomorrow’s scientists

In June, HMRI launched its first fully on-site Science, Technology, Engineering and Math (STEM) Program for high school students. Twenty rising juniors and seniors from the Pasadena Unified School District attended class at HMRI for six weeks, learning biomedical research concepts and participating in hands-on lab activities.

Although HMRI inaugurated the program in 2021, classes had to be conducted virtually last summer due to the COVID-19 pandemic. This year’s cohort was able to use lab equipment in a dedicated education room at HMRI. The cohort was highly diverse, composed mainly of students from groups underrepresented in STEM fields, including 16 women and 11 Latino students.

Nicole H. Purcell, PhD, associate professor of cardiology and scientific director of education programs, observed: “The program gave students the opportunity to explore scientific questions and work together on projects to build confidence and enthusiasm for science and STEM careers. The inquisitiveness and wonder of the students during the laboratory sessions tells me that we are making an impact.”

HMRI also held its annual 10-week Summer Undergraduate Research Fellowship (SURF) program on site. Five students—from colleges in California, Minnesota and Pennsylvania—participated in biomedical research projects with guidance from HMRI professors and postdoctoral students.

“Interactions with the HMRI research community allowed the SURF students to gain insight and guidance regarding graduate school plans and career pathways,” says Carlos A. Aguirre, PhD, director of education programs, who manages the summer programs in partnership with Purcell. “The program increased their sense of belonging in biomedical research professions.” ❖



*Guadalupe Hernandez Morales and Adeline Peterson, STEM program participants from Pasadena High School, practice extracting strawberry DNA and conducting a polymerase chain reaction and DNA gel electrophoresis.*

Please visit [hmri.org/education](https://hmri.org/education) for information on applying for next summer’s programs.



# Generations of giving: Patrick Chang and C. Joseph Chang



“Like father, like son.” This long-standing adage is personified by C. Joseph Chang and his son Patrick Chang, MD, who have been supportive members of the HMRI community for more than a decade. Their involvement dates back to 2010, when Patrick began as a student intern in the HMRI Liver Center under the guidance of its director, Myron Tong, MD, PhD. It continues today as Patrick is inspired to continue pursuing research in gastroenterology, and Joseph contributes his knowledge and energy as an HMRI board member.



Myron Tong

*“I consider Dr. Tong to be a pivotal mentor and among my earliest role models outside of my parents.”*

*—Patrick Chang*

Their shared interest in medical science is something of a family tradition. Joseph, a native of Taiwan, received a master’s in hospital administration from Tulane University and has had a long and successful career as a healthcare executive in the LA area. “My parents were my earliest inspiration,” he says. “My father was an obstetrician and gynecologist and my mother was a pharmacist. I saw the impact they had on their patients and I was motivated to improve healthcare in my own way.”

Patrick has followed in those footsteps, earning his MD at Tulane University in 2018 and completing his residency in internal medicine at Los Angeles County+USC Medical Center, where he was recognized as Primary Care Resident of the Quarter in 2020 and now holds a fellowship in gastroenterology. Patrick has also distinguished himself in providing support to others, mentoring fellow medical students and developing ways to utilize virtual reality as a teaching tool.

“I consider Dr. Tong to be a pivotal mentor and among my earliest role models outside of my parents,” Patrick says. “With his teaching in mind, I have tried to mentor trainees in medicine and promote a genuine interest in pairing clinical acumen with research interest.”

This deep commitment to helping others is no accident. Joseph has instilled in both his two sons an eagerness to give back. His other son, Frederick Chang, DO, is a board-certified family medicine physician who developed a passion for clinical informatics. After pursuing specialized master’s degrees and advanced training at USC Marshall School of Business, the University of Arizona and Arizona State University, he now works to prevent physician burnout and improve population health using data analytics.

Joseph says: “I believe community brings us together. It should be a chief priority for parents to support their

The Altadena Guild of Huntington Memorial Hospital held its first meeting in March 1951. It was the first of a number of Guilds founded in order to extend and enlarge the work of the Women’s Auxiliary of Huntington Hospital which was formed 25 years earlier. In February 1952, the Guild held its first benefit—a tour of three Altadena homes that yielded a profit of \$428.

The Guild continues the Home Tour tradition which is usually held the first Sunday in May. Celebrating 70 years of philanthropy, the Guild continues its long standing tradition of philanthropy to Huntington Medical Research Institutes (HMRI). The Guild’s generosity supports HMRI by improving health outcomes and educating the next generation of scientists.



THE ALTADENA GUILD  
OF HUNTINGTON MEMORIAL HOSPITAL

*“It should be a chief priority for parents to support their children to volunteer in the community.... The way to start is to lead through example and involve them in ways that interest them.”*

*—C. Joseph Chang*

children to volunteer in the community. To encourage this across generations, the way to start is to lead through example and involve them in ways that interest them. I have shared my experiences with both my sons in their areas of interest and passed on to them that the greatest life lesson I learned is to have persistence. This is a subject we frequently bond over when we talk about pursuing our respective dreams as father and sons.”

Joseph has plenty of experience to share. With his wife, Shwu, and sons, he has lived in San Marino for three decades. In that time, he has served five terms on the San Marino Unified School District’s Governing Board and held leadership

positions with the San Marino Schools Foundation, the San Marino Public Library, the San Gabriel Valley Red Cross, the San Marino Chinese Club, and the San Marino Chinese School, among others. He was also a member of the Caltech Associates board.

“I believe it is critical to promote HMRI for its impact on our community members and the advancement of medical care,” says Joseph. “At HMRI, my cardinal focus is supporting the vision of our researchers and ensuring that they have the tools and facilities they need to continue making breakthroughs on the next level.” ❖

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## Dr. Ingram left a legacy of innovation at HMRI. Through a bequest, you can too!



Marylou Ingram (1920–2013)

As a senior research scientist at HMRI from 1982 to 2013, Marylou Ingram, MD, pioneered methods for growing 3D tumor models from cancer cells. 3D tumor models are powerful tools in the search for effective anti-cancer therapies.

Through a bequest, Dr. Ingram endowed the Marylou Ingram Chair in Medical Science Research, ensuring that future HMRI researchers would have the resources to be as groundbreaking as she was.

### **Learn how you can establish your own legacy at HMRI.**

A bequest allows you to propel the scientific discoveries of the future while keeping your assets during your lifetime. To learn how to make a bequest to HMRI in your will or trust, contact the Office of Development at 626.389.3408 or [development@hmri.org](mailto:development@hmri.org).

# Celebrate HMRI's 70th Anniversary Holiday Open House

## Join us for:

- Hands-on science activities for kids
- Information on our summer 2023 education programs for high school and college students
- Talks with our scientists on their latest discoveries about Alzheimer's disease, mental illness, heart health, COVID-19 and more
- Games, music, art and food trucks!

**FREE ADMISSION • OPEN TO ALL**

Visit [hmri.org/70years](https://hmri.org/70years) to see the schedule and to RSVP.  
We look forward to welcoming you!

  
**Saturday**  
**December 3, 2022**  
**11 am to 3 pm**  
**686 South Fair Oaks Avenue**  
**Pasadena, CA 91105**



## Top of our 70th anniversary wish list? A gift from you!

Support HMRI's ground-breaking biomedical research and help us train the next generation of scientists.

### Give to HMRI the way you want.

- Mail a check made out to HMRI to the address below.
- Give online at [hmri.org/donate](https://hmri.org/donate) or use the QR code.
- Call 626.389.3408 to speak with our Office of Development.



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**Thank you for helping HMRI continue its tradition of discovery!**

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