A generous anonymous benefactor has awarded a two-year $3 million grant to Huntington Medical Research Institutes (HMRI) in support of further research in the field of Alzheimer’s disease (AD). Received during the summer, the grant will build on the advances achieved by HMRI during the last few years of focus on this devastating disease.

HMRI’s imaging research group, led by Dr. Brian Ross, used magnetic resonance spectroscopy to chemically image the brains of volunteers with early AD. Their results suggest that non-neuronal cells called glia are subject to inflammation in the brain before there is significant memory loss. The Molecular Neurology group led by Dr. Michael Harrington found distinct changes in various lipids in the spinal fluid of patients with early AD. In both cases, these observations can now be followed up by seeing the same patients return for repeated studies and correlating changes with the volunteer’s neurologic testing. In other words, are the suspected markers of disease worsening, staying the same or getting better as the disease progresses?

When the volunteers return this time, they will also be asked to donate blood for making induced pluripotent stem cells (iPSC). These cells can be used to make glia and nerve cells and probe them for the kinds of disease markers identified by the imaging and molecular neurology studies. Furthermore, the cells are a permanent biologic record of the volunteers and the scientists can

Oxygen: More is Not Necessarily Better

By Marie Csete, M.D., Ph.D., HMRI Chief Scientific Officer

Biologists who grow cells in the lab are obsessed by finding the perfect nutrients for the cell culture medium (the solution that bathes the cells), and the perfect surface for cell attachment. Almost always cells are grown at 37°C temperature, our core body temperature (98.6°F), reflecting the ‘normal’ temperature for human cells. And almost always cells are grown in a gas environment similar to that in room air. Room air (at sea level) contains 21% oxygen (O₂) and 78% nitrogen (N₂) with trace levels of other gases and water. To feed incubators containing cultured cells in the lab, a gas supply of room air is supplemented with 5% carbon dioxide (CO₂) used as a buffer, so that the final concentration of gases around the cell cultures is 20% O₂, 5% CO₂, and 75% N₂. Make sense? Not to an anesthesiologist or physiologist!

A groundbreaking study on Alzheimer’s disease, authored by HMRI Senior Biochemist Dr. Alfred Fonteh, and his colleagues from HMRI’s Molecular Neurology Program, has just been published in PLOS ONE, a leading scientific peer-reviewed journal. Entitled Human Cerebrospinal Fluid Fatty Acid Levels Differ between Supernatant Fluid and Brain-Derived Nanoparticle Fractions, and Are Altered in Alzheimer’s Disease, the study shows that the spinal fluid (which bathes the brain and spinal cord) may contain important diagnostic information about patients with Alzheimer’s
Some people may find “cross talk” annoying. That is not the case with Dr. Marie Csete, HMRI’s Chief Scientific Officer. She loves cross talk, particularly when it involves scientists from different disciplines.

As she puts it, “I believe that two people who come together from very different backgrounds to attack a problem are a whole lot better than one. And I believe that three people who come together to attack a problem from different perspectives are more than twice as effective as what two can do.”

That is the philosophy fueling HMRI’s recently-launched seed grant program. An internal program designed exclusively for HMRI’s researchers, it provides $30,000 grants to scientists who need to complete a discrete set of experiments to position themselves for a larger grant application, and for scientists to explore promising interdisciplinary projects.

“The idea here is that multidisciplinary approaches will be emphasized, particularly multidisciplinary approaches that will lead to a larger grant program if the hypothesis is addressed,” Csete continues. She cites the Alzheimer’s work done over the years by HMRI scientists Dr. Michael Harrington and Dr. Brian Ross as an example of a noteworthy collaboration: “It’s a real testament to the power of scientists coming from two very distinctive areas -- imaging research (Ross) and molecular neurology (Harrington) -- to gain insight into a complex disease process.”

The ideal seed grant is focused on a high risk/high reward question, presents a clear path to funding through larger programs within a year of the award, and would not be possible without seed funding. Only two awards will be made per calendar year and the program will be highly selective. The applications are reviewed by all HMRI program directors together and approved by the group. In addition, each proposal is returned to the applicant with a written critique. The benefit of having all the directors involved in the review process is that it makes it possible to receive multidisciplinary feedback.

Dr. Csete can see the long term benefits of the program for HMRI. She continues: “If all of us agree that the seed grant outlines a terrific approach to generate pilot data to get HMRI into a larger funding program, that’s a real investment. You’re giving the investigators the opportunity to generate some data that will take them to the next level of multi-million dollar grant applications.”

For donors, the seed grant program offers an opportunity to see the impact of their giving. Scientific research isn’t known for yielding immediate results and can extend for years. These grants, however, operate with a relatively quick timeline - scientists must complete their research within a 10-month period. As such, if a donor were to take advantage of a $30,000 seed grant naming opportunity, it is possible that they will see the larger grant applications that come out of the grant they supported, as well as the publications.

Csete calls herself a true believer when it comes to collaboration and cross talk between communities. “I think this is the most efficient way to do research,” she explains. “A major focus of what I am trying to do here at HMRI is to make people start talking across disciplines. I have seen several examples of places where communication has been facilitated by programs like this.” She pauses before continuing: “Everybody’s busy, and getting people to take time from their own lab to incorporate new ideas is tough,” she admits. “You forget that there are other perspectives that will help you achieve your end game. This program makes it possible to pool our intellectual resources much more efficiently by working on the same problems together,” she concludes.

To discuss a seed grant naming opportunity for yourself, or in honor of someone special, contact Director of Development Dan Maljanian at (626)397-5804. Dr. Csete would welcome the support. She can almost hear the cross talk now.
H MRI staff tend to be stars in their own rights, and Cherise Charleswell, researcher with HMRI's Magnetic Resonance Research Program, is certainly no exception. In addition to her significant day-to-day contributions to important research within HMRI, Cherise recently published two significant papers in scientific journals, and she is the newly-elected President of the Southern California Public Health Association (SCPHA).

The first of Cherise’s two papers, published in the Journal of Epidemiology & Community Health, is entitled Traumatic brain injury: considering collaborative strategies for early detection and interventional research. “That particular paper could be considered a research agenda,” Cherise commented. “There is a considerable amount of discussion today about traumatic brain injury, but most of it centers on veterans who are returning from war or adult athletes. This paper is saying that our next research phase should be examining a younger population to see if TBI can be detected at an earlier stage, and then look at it long term from that standpoint.”

Cherise’s second paper, published in Journal of Ethnicity and Disease, is entitled Commentary: Clinician and Researcher Contributions to Disparities in Racial and Ethnic Minority Participation in Human Subjects Research. The paper poses challenging questions on the inclusion of ethnic and minority subjects in medical research. “If we look at this country and beyond, we can see that African Americans, people of African descent, Hispanics, Asians, Pacific Islanders and indigenous people cannot be considered ‘minorities’ in terms of world population,” Cherise said. “When you’re creating studies, you’re looking at different technologies and therapeutics that would work for certain populations. If you’re going to exclude all of these people who in fact are the world’s majority, your research is pretty much null and void.” Cherise noted that such study disparities can also include gender; as an example women have a higher degree of heart failure than men, but these statistics are not always taken into account in heart failure studies.

In her new role as President of SCPHA, Cherise is aiming to provide more of a unified voice in gaining much-needed support and funding for medical research. “Even though this association is composed of multiple disciplines, the overall focus is public health,” she said. “I want to help see that we’re more of a united voice, and include not only clinicians but researchers. We’re all fighting for the same funding dollars that we see dwindling from the federal agencies, so we need to have combined efforts and advocacy.”

Cherise became interested in public health very early in her career. “I had finished pre-medical undergraduate work focusing on biological sciences and cultural anthropology,” Cherise said. “At that time I came across mention of public health, picked up some of the textbooks and got more intrigued. I thought it would be more of what I wanted to do. I know within medicine, especially in the US, public health practitioners have their hands tied in many ways. I don’t think that they actually get to treat or help the public in the way that they would like to, even though public health has that end as a primary focus. It’s not about insurance companies; it’s not about working with pharma to push a pill that may or may not be something that is best for your patient.” Having found her path, Cherise eventually earned a Master’s Degree in Public Health, and has never looked back.

Today, despite a definite unexpected direction to her career, Cherise is loath to isolate a particular mission on which she is focused. “I have not yet come to my overall mission,” she laughed. “I feel like I’m still that pre-med freshman in college who wants to heal people and help people. When I try to place a more elaborate form or title to my mission, it always goes back to that.”
Spectacular Event was a Fundraiser for HMRI

On Saturday, March 22nd, HMRI board member Roger Engemann and his wife Michele Dedeaux Engemann opened the doors of their fabulous home to almost 200 guests for “A Night on the Riviera with HMRI.” The glamorous “black tie admired” event raised close to $65,000 for the Institutes.

Offering the first taste of the Riviera were three spectacular Aston Martins that were parked at the entrance to the estate. One of the vehicles, a vintage 1967 replica Goldfinger movie car, featured a number of James Bond-type gadgets that actually worked.

A highlight of the evening was a culinary exhibition featuring celebrity chef Claud Beltran. Chef Beltran also catered the event. The event featured live music, dancing, and a Monte Carlo casino. The music was provided by jazz honors students from the USC Thornton School of Music.

Thanks to all who attended and to HMRI’s Events Committee for their organizing efforts.
GlaxoSmithKline Partners with HMRI in Cutting-Edge Bioelectronic Research

The sixth largest pharmaceutical company in the world, GlaxoSmithKline (GSK), has handpicked HMRI as one of a handful of research institutions to assist in cutting-edge studies in the new field of bioelectronic medicine. Bioelectronic medicine opens the door for nano-scale devices to instruct groups of individual nerve fibers. The object is to identify patterns of electrical signals that promote repair of diseased organs and improve physiologic function. GSK funded a $300,000 grant to HMRI based on its leadership position in related research throughout the years.

Leading the research for HMRI’s Neural Engineering Program is Dr. Victor Pikov. His study is focused on the use of electronic signals for treatment and prevention of polycystic ovary syndrome—a disease in which cysts form on ovaries, leading to reproductive dysfunction including infertility.

“Earlier animal research demonstrated that if the nerve to a polycystic ovary is cut, the process of cyst formation can be reversed,” Dr. Pikov explained. “It may be that overactivity in the ovarian nerves is necessary for cyst formation. We don’t think the peripheral nervous system component of the causes of cysts is the only factor, but it may be a big contribution to the disease. The research we’re doing for GSK is to find ways to modify the nerve signal to the affected organ.” The original animal research was conducted by Dr. Herman Lara of the University of Chile in Santiago, Chile, with whom Dr. Pikov is collaborating.

Dr. Pikov had to start from scratch. “The technology to accomplish these tasks did not exist until GSK started this project six months ago,” he continued. “I’ve worked with several companies to develop technology specifically for us.”

One of the primary challenges is in dealing with the nerve size in the animal models, many times smaller than any others the HMRI group has worked with in the past. HMRI investigators developed electrode technology used in the much larger vagus nerve—now an industry standard in the treatment of epilepsy. The autonomic nerves to the ovaries are about the same diameter as a human hair: 100 microns or 0.1 millimeter. The device developed to connect to the nerve is a customized tiny electrode with an internal diameter of 500 microns or 0.5 millimeter, so small it can fit around the ligament housing the targeted nerve. The electrode was specially developed for HMRI by Cortec of Freiburg, Germany.

Signals from the nerve are carefully monitored by one device, and a second device is used to modulate the nerve signal. “Right now we’re trying something that is relatively simple,” Dr. Pikov said. “We’re not trying to change signaling—we’re trying the approach of blocking the signal completely to see the results, and then backing off and blocking it by 50 percent to see if that’s enough to restore health to the organ.” The technology for monitoring nerve signals was developed by Plexon of Dallas, Texas; Draper Laboratory of Cambridge, Massachusetts is providing the technology for modulating the nerve signals.

Current treatment for autonomic nerve targets are pharmaceuticals—drugs, usually taken systemically (by mouth). As Dr. Pikov explained, however, oral medications cannot target specific nerves connected to specific organs—an oral drug affects all autonomic nerves each time it is administered. Hence bioelectronic medicine, which targets specific nerves connected to specific organs with potential for much less in the way of side effects, represents a major shift in treatment paradigms.

“I believe this technology has enormous potential,” Dr. Pikov concluded. “Once we develop these tools for clinical use—meaning these very small implantable devices you can put onto or around nerves—the list of disorders open to treatment is very long. It includes cancer, asthma, hypertension, diabetes and inflammatory and autoimmune disorders. I’m very excited to take part in it.”

Neural and hormonal control of ovaries. In a healthy woman, the brain orchestrates the neural signaling in sympathetic nerves and hormonal signaling in the pituitary for normal follicular development in the ovary. However, if sympathetic neural signaling becomes too strong or the androgen hormones are produced, the follicles cannot fully develop and instead begin forming abnormal cysts. By blocking or reducing the sympathetic neural signaling, it might be possible to prevent cyst formation in the ovary.
disease even before they have memory loss. The spinal fluid analysis also points to possible new avenues of therapy. The 3-year study found significant differences in fatty acids between Alzheimer’s and cognitively healthy patients. In particular, omega-3 fatty acid levels were found to be considerably reduced in Alzheimer’s patients.

“We measured a vast number of lipid compounds in the cerebrospinal fluid and found a lot of changes, especially in omega-3 fatty acids but also in the mono-unsaturated fatty acids,” said Dr. Alfred Fonteh, the lead researcher on the study. “These (omega-3s) are the kind of fatty acids that you often find in a Mediterranean diet.”

Dr. Fonteh noted that in earlier studies people in countries with diets rich in fish – foods particularly rich in omega-3 fatty acids – were found to have better memory function and tend not to have as high an incidence of Alzheimer’s disease. These data formed part of the hypothesis that led to his study. In addition, it was known from earlier studies of Alzheimer’s disease that the brain – which contains abundant fatty acids – shrinks considerably in Alzheimer’s patients.

This was the first study of its kind to be conducted in living human subjects, all volunteers. “For a long time people have done animal studies that found that if you provide a certain amount of omega-3 fatty acids to rats, it prevents memory loss,” Dr. Fonteh continued. “But no one has ever studied humans to discover levels of omega-3 fatty acids in the brain, or whether they’re actually depleted or have any significance in disease.” By looking in spinal fluid, the researchers have a more direct read-out of changes in the brain than can be accomplished by looking in blood where molecular changes originating from the brain are mixed together with changes from all the other organs.

Three groups were utilized for the study: (i) cognitively healthy participants, (ii) mild cognitive impairment participants, and (iii) Alzheimer’s disease participants. The levels of brain fatty acids were measured using state-of-the-art gas chromatography-mass spectrometry—a method through which components of lipids (and other molecules) can be viewed distinctly and separately. The HMRI research team measured over fifty different types of fatty acids ranging from saturated fatty acids, monounsaturated fatty acids, and polyunsaturated fatty acids in each spinal fluid sample. This comprehensive approach detected disease-specific changes never described before. The HMRI research team is now focusing on what causes Alzheimer’s disease with emphasis on the balance between inflammatory fatty acids (omega-6 products) and fatty acids that resolve inflammation and protect neurons (omega-3 products).

The findings of the study also suggest some novel new approaches to therapy. The changes in fatty acids within cerebrospinal fluid could be used as more than markers to characterize the stage of Alzheimer’s disease and perhaps to monitor response to therapies. Intriguingly, restoration of fatty acids in these patients may potentially be therapeutic, and the HMRI group will be addressing the results of this study with further research in the same patients, and in new study participants, in parallel with in vitro laboratory studies.

To read the study in its entirety, visit http://dx.plos.org/10.1371/journal.pone.0100519

Dr. Alfred Fonteh holds a Ph.D. in biochemistry from the University of London, and completed postdoctoral studies at Johns Hopkins University Asthma and Allergy Center. Prior to coming to HMRI, he held positions of Research Associate, Instructor of Medicine and Assistant Professor at Wake Forest University School of Medicine. Dr. Fonteh has been with HMRI for 13 years, and now holds the position of Senior Biochemist. His research path focuses on lipid signaling pathways to discover therapeutic targets of neurological disorders, including migraine.
return to them over and over to address new hypotheses about AD.

When asked to explain what will happen during the next phase of the research, Dr. Harrington stated: “This grant will make it possible for us to progress from the original cross-sectional study to a longitudinal follow-up of our participants. We found that half of our cognitively healthy participants have bad chemistry of the type that is typical for Alzheimer’s disease (AD), while the other half have normal chemistry.”

Continuing, Harrington added: “We will now be able to see how these brain functions and chemistry change over time in each individual. We also found changes in many lipids that were unique to each stage of the progressive disease process of AD, and we will be able to see if these also change with symptoms of AD. These studies will keep us very busy, but we will be collaborating with the same population in the MR and stem cell program at HMRI, which will allow us to explore even more ideas about AD with these altruistic volunteers!”

The major funding will also provide the means to have the necessary personnel (research nurse, administrative assistant, and two biochemists) and equipment (a new device to measure the tiny particles that change with AD in spinal fluid) to fulfill the study. Harrington’s team expects to identify changes in chemistry that underlay the mechanisms involved in AD, which is crucial to identifying treatments. These “biomarkers” may also lead to diagnostic tests in blood or urine.

“Many of our study participants (average age > 80 years) have told me that they will die if we do not do this follow-on study soon,” Harrington continued. Speaking for his research volunteers, Harrington smiled and said, “They are as excited to do this study as we are!”

Congratulations go out to HMRI’s research teams for their pioneering efforts and vision on this unique multidisciplinary approach to AD research.

Oxygen — continued from page 1

the time, it was very difficult and very expensive to reconfigure labs to adjust oxygen levels in the incubators, so with a lot of help from Home Depot (plastic bags and fittings) and the UCLA operating rooms (tubing and stopcocks), I started growing a variety of stem cells at their ‘normal’ oxygen concentrations (which all the biologists around me were calling ‘hypoxia’ or oxygen starvation) vs. the historical 20% O₂.

A few common themes emerged across many different stem cell types including stem cells from skeletal muscle and the brain: Low normal oxygen conditions reduce cell death compared to 20% O₂ and increase their proliferation (growth). [In fact, these results are a lot like the results you get when you take a stem cell from a very old person (20% O₂) vs. a very young person (low normal oxygen).] The end result is more cells (and some of these cells are very expensive to isolate and expand). Many years later, when running the Emory-Georgia Tech Embryonic Stem Cell Core Facility, at a time when a single vial of these cells cost $25,000, we grew the cells at 3% O₂ and managed to expand them really efficiently compared to labs growing them at 20% O₂.

Another common theme: Oxygen could be used to change the type of differentiated cell generated by a stem cell. Stem cells are ‘undifferentiated’ in that they have the potential to become a cell type that serves a particular function: They are the reserve army waiting for instructions about their duties. In the case of muscle stem cells, the high 20% O₂ conditions used historically not only killed a lot of stem cells, but caused them to differentiate into fat cells. On the other hand low (in this case 6%) oxygen conditions were conducive to becoming a functioning muscle cell. These shifts were not subtle—In the range of 6-7-fold differences in cell fate choice. In the case of brain stem cells, cells grown in 1% O₂ (the brain uses a lot of oxygen, so the environment is very low in oxygen) are much more likely to grow up and become dopaminergic neurons than cells grown in 20% O₂. Dopaminergic neurons are the kinds of neurons (nerve cells) specifically lost in Parkinson’s disease. In both cases we were able to identify some of the gene pathways tickled by the oxygen conditions to induce the changes in differentiation.

This work was greeted overall with a lot of skepticism at first (actually skepticism is a nice word for most of the reactions), in part because patterns of practice in science are very hard to change. But once the stem cell boom started and biotech companies had to pay attention to the difficulties of growing up tons of cells into master cell banks for therapy, all of a sudden, low/physiologic levels of oxygen started to get a lot of attention. Happily, there are now several stem cell products working their way into the clinic that would not be far along in development without the work, motivated by a career in anesthesiology, that started at Caltech. (By the way, avoid the oxygen bars at airports and oxygen facials—they will only age you!)

Figure legend. On the left three panels, human brain stem cells grown in 20% O₂ are healthy if they are blue and dying if they are brown (a lot are dying). The same cells (right two panels) were grown in 2% O₂ for a longer time than the cells on the left. They are also labeled for cell death, but no cell death is apparent.
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January to May 2014*

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Special Thanks

March, 2014: Standing between HMRI Development Director Dan Maljanian (left) and President & CEO Dr. William Opel (right), Halaine Rose presented gift checks from the 7th Annual Doctors and Sweethearts event, which is sponsored by the Los Angeles County Medical Association Alliance (LACMAAA).
May, 2014: At the June general meeting, the Altadena Guild presented a check for $60,000 to HMRI representing the proceeds from this year’s Home Tour. (left to right) HMRI Development Director Dan Maljanian, Home Tour Co-Chair Pat Bruce, Guild President Sharon Morrisey, Home Tour Co-Chair Paula Orlandini, HMRI President & CEO Dr. William Opel, HMRI Chief Scientific Officer Dr. Marie Csete, HMRI Research Associate Dr. Victor Pikov.

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**January to May 2014**

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Please note:
The list of available topics is constantly updated, and programs can be specially-designed with advance notice.

While speakers are provided at no charge, donations to HMRI research programs are always welcome.

To book a speaker, contact Dave Silvey at (626)795-4343 x 233 or via email at silvey@hmri.org.
Introducing the HMRI Speakers Bureau & Speaker Series

Education is alive and well at HMRI! Under Chief Scientific Officer Dr. Marie Csete, a champion of education and continuous learning, HMRI recently introduced a Speakers Bureau and a weekly Speaker Series. Both are free to the public.

Csete is unequivocal when asked why she launched the programs: “We feel we owe the community the results of investments in research. We also understand that there are many groups who critically need information from scientists working on diseases of interest to that group.”

Book a Speaker for your Next Meeting or Event

Thanks to HMRI’s Speakers Bureau, local organizations and businesses can now bring one of HMRI’s internationally recognized scientists to community meetings or events. Presenters are available to speak on a variety of topics. Importantly, the opportunity to book a speaker is not limited to nonprofit organizations.

The program was designed so that people can get access to scientific information without having to worry about the cost of that access. Dr. Csete is sensitive to the issues surrounding access: “It’s difficult on several levels. One is people just don’t know who to talk to as an expert. The other is a poor history of scientists understanding how to communicate complex ideas to the public.”

To book a speaker, Dr. Csete recommends providing a minimum of one month. In advance of calling, give some thought to the format that would work best for your group. Do you want a lecture? Would you prefer to have people sitting around a table talking more informally? Also be prepared to talk about the nature of the audience and what you see as the purpose of having the scientist come to your group. Dr. Csete also advises to allow plenty of time for a Question & Answer session. To her, that is the most important part.

Talks Available for Young People

Dr. Csete had a lot of contact with junior high school students when she was a professor in Atlanta, so she can appreciate the benefits of having the scientists talk to groups of young people. However, she does not recommend booking for groups with children younger than 5th graders.

Weekly Speaker Series

The public is also invited to come onto the Huntington Hospital campus for one of HMRI’s weekly science talks. These are interspersed across all disciplines of science and medicine and are also free. The distinguished list of future speakers includes Larry Couture PhD from City of Hope, and Prof. David J. Anderson from Caltech.

For Additional Information

For information on either the Speakers Bureau or the weekly Speaker Series, the contact person is Dave Silvey, available by phone at (626)795-4343 x 233 or via email at silvey@hmri.org, or feel free to visit the HMRI website: www.hmri.org

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HMRI Summer Student Research Program Continues Its Tradition of Excellence

On May 26th, HMRI’s 2014 Summer Student Research Program officially got underway with the arrival of Carina Lee, a second year student from Cornell University. Carina is one of the fourteen college and graduate school students accepted for the highly competitive 10-week program. Now in its 60th year, the summer program is an opportunity for students to further their knowledge of science beyond what is offered at schools during the traditional academic year. HMRI’s world class scientists serve as both mentors and role models, giving the interns an opportunity to work alongside them in the labs. With their mentors, the interns design a research project that falls within the areas of neural engineering, biomedical imaging, liver research, molecular neurology, molecular oncology and cancer genetics. This year, with the arrival of Dr. Marie Csete, HMRI’s Chief Scientific Officer, the program was expanded to include stem cell research, as well as public relations.

In addition to conducting research aimed at developing effective diagnostics and treatments for medical conditions, the interns also attend weekly lectures regarding HMRI’s current research projects. Every effort is made to offer them a well-rounded research experience. Over the years, summer program alumni have gone on to distinguished careers in science or medicine. Many credit their HMRI experience as a springboard to their future professions.

The program is made possible thanks to philanthropic support from individuals,

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On Tuesday, July 29th, Huntington Medical Research Institutes (HMRI) opened the doors of our facility at 99 North El Molino for an Open House & Backyard BBQ in honor of the 2014 Summer Student Research Program. Close to 200 guests joined in the festivities. The guest list included HMRI donors, business and community leaders, plus friends and families of the students.

The Open House made it possible for guests to visit the labs and talk one-on-one with the students. Many of the program mentors were also on hand. A number of guests commented that it was their first time seeing a lab where scientific research is conducted. The opportunity to travel behind-the-scenes, and to hear about the students’ research projects proved to be a winning combination.

After the Open House, guests donned cowboy hats and went outdoors for a Western style barbecue catered by Santa Maria BBQ. Providing the entertainment was the Honey Whiskey Trio.

foundations, corporations and nonprofit organizations. The Rose Hills Foundation has been a major supporter. This year, they provided a grant of $50,000 for the program. The Altadena Guild is another major donor.

HMRI also offers thanks to the Summer Program Diversity Committee: Dr. William Opel, Dr. Robert H. Suzuki, Mr. Leonard E. Torres, Dr. Howard Xu, and Ms. Diane Scott. This blue ribbon panel is integral to the process and assists with both recruitment and selection. In addition to reviewing the applications each year, they also offer strategies to ensure that HMRI outreaches to a broad and diverse pool of students.

On Thursday, August 14th, the Class of 2014 concluded the ten week program with an afternoon of presentations to an invited audience of dignitaries.

For additional information on the program, including application information, visit the HMRI website at www.hmri.org.
In February of 1952, the Altadena Guild of Huntington Memorial Hospital held its first benefit – a tour of three Altadena homes. The event yielded a profit of $425. Fast forward to Sunday, May 4th, 2014. A battalion of enthusiastic Guild members is gathered on La Solana Drive in Altadena for the 63rd Annual Home Tour. They are joined by a contingent of husbands, friends, and family. The energy is high and it promises to be another successful day. It will be!

This year’s Home Tour raised $60,000. The funds will go far in helping HMRI’s medical research scientists to advance knowledge and technology for better health. The Home Tour will also benefit HMRI’s Summer Student Program. A big note of thanks goes out to all the individuals who contributed to the success of the event – from the Altadena Guild members, to the gracious home owners, to the countless volunteers. HMRI especially wants to acknowledge the tireless efforts of the three Home Tour co-chairs: Judy Armstrong, Pat Bruce, and Paula Orlandini.

“This event is like a master class in how to bring together a community in support of a good cause, and we are the fortunate beneficiaries,” says HMRI President Dr. William Opel. “The Altadena Guild has been doing this for 63 years, and somehow they still manage to top themselves every year. Huntington Medical Research Institutes is proud to be associated with such an important event.”

La Solana Drive, the area selected for the 2014 tour, continues the tradition started back in 1952. Architecturally interesting and rich with history, La Solana has remained one of Altadena’s premier character streets for almost 90 years. The property was acquired by the B.O. Kendall Company in 1925, and was one of Southern California’s first planned communities. In 1926, the purchase of a house on La Solana came with a membership in what is now known as the Altadena Town and Country Club. Just one block in length, the street has 23 entirely different homes, all by the same architect and most constructed in 1926. Designed in the “Castilian” style, every house has a red-tile roof, white Mediterranean-style exteriors, 12-inch thick walls and hardwood floors. No two floor plans are alike though.

On the day of the tour, guests were able to view the interiors of seven houses and visit the gardens of several additional homes. The festivities officially kicked off with the Pasadena Scots playing their bagpipes and drums as they marched from one end of La Solana to the other. Along the path, there was the Plein Air Market, which featured handmade crafts, jewelry, antiques and accessories. Another Home Tour staple, The Bakery, had its usual array of tempting desserts, which, not surprisingly, sold out by the end of the day.

After touring, guests were able to relax and enjoy a complimentary dessert at the Tea Garden. Others cooled off with a libation at the always popular Altadini Bistro Bar. Musicians played throughout the day.

If you were among the many who attended this year’s Home Tour, HMRI thanks you for your support. We also offer our heartfelt appreciation to the event Patrons for their generous sponsorships.

Plans are underway for next year’s Home Tour. Save the date: Sunday, May 3rd, 2015.
Dr. Lawrence W. Jones Retires
HMRI Board Member Busier than Ever!

After 40 years in practice, Dr. Lawrence W. Jones retired from Pasadena Urological Medical Group on Wednesday, June 11th. A Clinical Investigator and member of the Board of Directors of Huntington Medical Research Institutes, Dr. Jones spent those same 40 years leading the urological research program at HMRI. An amazing friend and colleague, he retires having enjoyed many successes during his career, including:

- 46 scientific publications in the fields of urology and prostate cancer
- Early studies in bladder control using electrical stimulation
- Establishment and characterization of a widely used human prostate cancer cell line (PC-3)
- Co-inventor of the MRI Coil for imaging the prostate
- Pre-clinical drug development for castration-resistant prostate cancer
- Principal investigator of a completed phase 1 study of a novel agent for the treatment of castration-resistant prostate cancer

As might be expected, clinical retirement does not spell the end to Dr. Jones’ research pursuits. Committed to leaving a legacy for his loved ones and the community, he has set up a fund for a urology program at HMRI. This will assure a future of continued research.

If you want to be a part of this legacy, Dr. Jones says he will gladly pursue it with you, and even give you a tour of the facility and laboratory. His reasoning is simple: “To me, this is where our future lies.”

For Lawrence W. Jones (Larry), that passion for living began in Ithaca, New York, where he was born to the then Dean of the Graduate School at Cornell. After a visiting professorship in Berkeley, the family decided to stay at the University of California Berkeley and became tried and true Californians.

Larry attended Berkeley High School, Yale and UC Berkeley undergraduate and UC San Francisco Medical School. His Internship and Urology Residency were completed at USC/LA County General Hospital.

Larry met and married Mireya Asturias in Berkeley and moved to San Francisco for medical school and subsequently to Southern California for internship and residency. During this time, while Larry completed medical training, they had their five children. In 1970 Larry was among the last of the Vietnam draftees and spent three years in Stuttgart, Germany as Urologist to the troops in Southern Germany and Diplomatic Corps in Eastern countries.

On his return to the US, Larry did a Fellowship year at UC San Francisco before moving to join the Nation, Massey & Edwards urologic practice in Pasadena in 1974.

The Joneses raised their children in San Marino where Larry really enjoyed his work with the Boy Scouts (being an Eagle Scout himself). He loves music and soon was invited with his trombone to join the Dad’s Band that played around town for benefits and in Lacy Park every 4th of July. Today, he is a member of the Pasadena Maestros and plays with them on a regular basis.

He is on the board of directors of Guided Discoveries, the Catalina Island Marine Institute (CIMI) and their Idyllwild Astro Camp.

His professional affiliations and highlights include past presidency of the Pasadena Medical Society, the California Urological Association, the Western Section of the American Urological Association and the American Association of Clinical Urologists (AACU). In addition, he has served on the boards of the American Urological Association (AUA), the American Foundation for Urologic Disease and represented the AUA in the House of Delegates of the AMA for seventeen years.

He is a former member of the Valley Club, the Twilight Club, and the University Club.

Dr. Jones enjoys hiking, sailing, travel (usually Guatemala), music and reading. He particularly enjoys interacting with his thirteen grandchildren.

To offer your support for a urology program at HMRI in Dr. Larry Jones’ honor, please visit www.hmri.org/UrologicalResearch or contact Dan Maljanian, HMRI’s Director of Development, at (626)397-5804 or via email at Maljanian@hmri.org.

We wish our dear friend a good and productive time in retirement.
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