Agi's National Doctors Day Message

When I started the Hirshberg Foundation more than 26 years ago with the goal of eradicating this disease, I relied on the doctors at UCLA who had cared for my late husband Ronnie for guidance. Over the years, these doctors became instrumental in the battle against pancreatic cancer by elevating patient care, leading the research front, and increasing awareness in the medical community. Today, on National Doctors Day, I hope you will join me in celebrating the extraordinary impact they have all made on our loved ones and in the field of pancreatic cancer.

Dr. Howard A. Reber, Ronnie's surgeon, was the first to steward the Hirshberg Foundation. Dr Vay Liang W. Go was by my side for more than two decades and was the visionary behind our Seed Grant Program. Long before Dr. O. Joe Hines became the Chair of the Department of Surgery at UCLA, he helmed the Hirshberg Translational Lab and was the first Director of the UCLA Agi Hirshberg Pancreatic Center for Pancreatic Diseases. The partnership and brilliance of these doctors led to significant strides forward in both research and patient care.



Today, we have the best and brightest doctors guiding our efforts. Our Scientific Advisory Board Chair, Miklos Sahin-Toth, MD, and the Director of the UCLA Agi Hirshberg Center for Pancreatic Diseases, Timonthy Donahue, MD, are the top leaders in pancreatic cancer. We have outstanding medical professionals serving on our <u>Scientific Advisory Board</u>, as physicians and caretakers to patients, and making <u>groundbreaking discoveries</u> in the lab. Their steadfast work is changing the trajectory of this disease and bringing us closer to a cure.

I am grateful for the expertise, commitment, and friendship of each doctor who helped the Hirshberg Foundation pioneer our path forward. If you would like to shine a light on a doctor who has supported our fight against pancreatic cancer, someone who has been your champion, or helped a loved one, I invite you to share your story.

With gratitude,

Agi Hirshberg Founder

New Agi Hirshberg Center for Pancreatic Diseases Unveiled

The <u>UCLA Agi Hirshberg Center for Pancreatic Diseases</u> has moved to a beautiful new space and the momentous opening was commemorated with a ribbon-cutting ceremony on March 13, 2024. At the Center, patients and their loved ones can receive holistic, groundbreaking care in one central office. This new location enhances a key pillar of our mission for providing and redefining state-of-the-art care.

In establishing the Foundation, Agi's vision was to offer patients and families a place to receive the best care from top-notch medical professionals all in one location. That vision became one of the <u>pillars of our mission</u>, and it became a reality when the Integrative Practice Unit opened its doors in 2015. Over the past few years, the Center's needs have evolved, and a new location was needed.

Now, under the direction of <u>Dr. Timonthy Donahue</u>, the bright and welcoming space offers more room to serve patients and provides a new, cohesive patient experience. Patients and caretakers are able to see surgeons, medical oncologists, gastroenterologists, palliative care specialists, dieticians, genetic counselors, clinical trials coordinators, and therapists from the Simms-Mann psychosocial care team all in one location and often in one visit. The Center sets the standard for state-of-the-art care and will accommodate the needs of patients by redefining the best in patient care for years to come.

The new top-floor location, with stunning views and natural

light, features larger, upgraded exam rooms to accommodate patients and caregivers with enhanced privacy, while the addition of two team collaboration areas provides better access for improved patient-provider communication. For nearly a decade, the Agi Hirshberg Center for Pancreatic Diseases has grown to become one of the nation's premier comprehensive programs for pancreatic diseases through the Integrated Practice Unit (IPU). With a focus on personalized treatment from a collaborative research-physician team, the Center can deliver some of the best results in the nation.

The Center houses the UCLA clinical program with multidisciplinary research and education programs at the UCLA main campus as well as at sister institutions. Established by Agi Hirshberg, founder of the Hirshberg Foundation for Pancreatic Cancer Research, the Agi Hirshberg Center for Pancreatic Diseases will continue to support cutting-edge investigations and remain a beacon of hope for patients and their families. This is all possible thanks to the continued generosity of our community.

Our Spring Momentum Newsletter

Spring has arrived, and with this new season, we're excited to share the progress we've made in 2024! This year began with positive news from the American Cancer Society. The <u>5-year survival rate of pancreatic cancer increased to 13%</u>, continuing an upward trend over the last few years. This is a positive indicator for patients battling pancreatic cancer today, and we're eager to see that number skyrocket. This news, along with the announcement of our upcoming Symposium for survivors &

families and the most recent research updates, all demonstrate how your support leads to real results. We look forward to taking big strides forward this year, and we are grateful for your continued dedication.

Ribbon-Cutting Ceremony for the Agi Hirshberg Center for Pancreatic Diseases

This month the Hirshberg Foundation celebrated opening a beautiful new location for the Agi Hirshberg Center for Pancreatic Diseases. Agi's vision for this center was to offer patients a place to receive care from top-notch medical professionals collaborating in one location. This has become a beacon of hope and truly groundbreaking for patient care. The new, warm, and welcoming space allows more patients to be seen by their entire medical team in one location with the most advanced treatment options. Under the exceptional leadership of Dr. Timonthy Donahue, the center is providing the very best care for our survivors as they navigate a diagnosis. This is all possible thanks to the continued generosity of our community.

Research Updates from our UCLA Labs

Over the years, we have deepened our understanding of pancreatic cancer thanks to the work of dedicated researchers from our Seed Grant Program, labs at UCLA, and Tissue Bank. Year-round, these investigators advance research in the global scientific community, and more recently, they have shared updates in early detection, genetics, and pathology.

Dr. Guido Eibl and Hirshberg Scientific Advisory Chair, Dr.

Miklos Sahin-Toth lead two of our laboratories at UCLA. The collaboration between the <u>Hirshberg Translation Laboratory</u> and the <u>Sahin-Toth Laboratory</u> is central to our work on campus. We invite you to review their publications — this is how your donation impacts science.

Additionally, Dr. Nelson Yee, a 2017 Seed Grant recipient, continues to make progress with his study on biomarkers for early detection. We hope you will take a moment to learn more about his project, and we look forward to sharing more updates in the future! Finally, we're thrilled to share a new video about our UCLA Pancreas Tissue Bank. Established in 2005, the Tissue Bank is led by David Dawson, M.D., Ph.D., Professor in the Department of Pathology and Laboratory Medicine at the David Geffen School of Medicine at UCLA. The Tissue Bank is a vital resource for the research community and a shining example of collaboration.

The 18th Annual Symposium is Coming Up

The Hirshberg Foundation invites patients, caregivers, and families to join us, either in-person or virtually, for a day of learning and connecting at the 18th Annual Symposium on Pancreatic Cancer. In addition to our Survivor and Caregiver Panel, this year's topics will include Pancreatic Enzyme Education, Genetic Testing for Pancreatic Cancer, PRECEDE: Pancreatic Cancer Early Detection Consortium, and Improving Pancreatic Cancer Patient Care: Canopy Cancer Collective. This invaluable event brings together patients and families, medical professionals, and scientific researchers in an intimate space where they may learn from one another. Support the symposium with a donation and help us continue to offer this event free of

charge to patients, caregivers, and families.

Registration for Tour De Pier is Open

The 12th Annual Tour de Pier event returns to Manhattan Beach on Sunday, May 19th. If you haven't participated in this event, you're missing out! We're bringing stationary cycling back to the beautiful scenic views of the Manhattan Beach Pier, where you'll also enjoy an expo, entertainment, event swag, and, most importantly, a community committed to fighting cancer. Be a hero and make an impact on families facing pancreatic cancer today. Join us as we ride for hope, ride for love, and ride for a cure on May 19th. Watch our "We Can Be Heroes" Video and register today!

HTT Recap

This past St Patrick's Day the 35 members of the Hirshberg Training Team culminated their months long training schedule to complete the LA Marathon or Charity Half Marathon. In addition to training, each participant committed to raising \$1000 for our Foundation and far surpassed their team goal by raising more than \$155,000. As an Official Charity Partner of the LA Marathon, we hosted our beloved course support station, the Purple People Party, at a new location in Beverly Hills. Over 100 volunteers cheered, danced, and passed out treats to the thousands of runners while raising awareness for our cause.

2024 Upcoming Events

Symposium - Saturday, April 13, 2024
Tour de Pier - Sunday, May 19, 2024

Tour de Pier - What Your Ride Funds

Each year, thanks to the fundraising efforts of the Tour de Pier community, our three cancer charities are able to provide crucial support for patients and fund groundbreaking research. As we gear up for an epic 2024 ride, we want to look back at 2023 and highlight the progress each charity was able to make because of your fundraising and generosity. We can't wait to see what we can accomplish together in 2024!



The Hirshberg Foundation

In 2023, the Hirshberg Foundation was able to fund 8 new individual & collaborative <u>Seed Grants</u>, collectively awarding 120 projects to date. The Seed Grant program continues to produce results and past Seed Grant recipients presented at conferences around the globe in 2023. As a long-time sponsor of

the American Pancreatic Association (APA) Meeting, their 2023 opening symposium addressed the role of Artificial Intelligence (AI) in diagnosing, treating and advancing pancreatic cancer research. At the end of last year, the <u>Agi Hirshberg UCLA Center for Pancreatic Diseases</u> moved to a beautiful new space on the UCLA campus that offers patients and loved ones world-class integrative care in one convenient location.

Through direct patient interactions, in 2023 the Hirshberg Foundation provided invaluable support services to over 200 newly diagnosed patients and their families. Their Patient & Family Webinars and Symposium videos help pancreatic cancer patients & caregivers learn from top medical professionals, share their stories and connect with one another. The Hirshberg Foundation is proud to partner with the National Comprehensive Cancer Network (NCCN) to develop extensive guidelines on care options, treatment protocols, and expert recommendations, all made available in their latest <u>Guidelines</u> book.



We've got brain cancer surrounded.

The Uncle Kory Foundation

In 2023, the <u>Uncle Kory Foundation</u> (UKF) funded \$200,000 to their brain cancer Seed Grant Program, \$150,000 in Collaborative Grants and \$100,000 in second year Renewal Seed Grants. They also contributed \$100,000 to a program that is near and dear to

the Tour de Pier community and the South Bay, the <u>Fight Like the Averys Grant</u> (FLAG) which supports pediatric brain cancer research programs. UKF was also able to provide \$10,000 in <u>Medical Student Grants</u> at UCLA and Duke University.

Thanks to the support from the Tour de Pier, as of January 2024, UKF has awarded \$3,650,000 in grants to 61 projects focused on finding better treatments for adult and pediatric brain cancer. UKF research grants have led to over \$2.2 million in additional funding from the National Institute of Health and other funding opportunities. Together, we have brain cancer surrounded.



Cancer Support Community Redondo Beach

CSC South Bay provides hope, education, and support to cancer patients, survivors, and their loved ones completely free of charge. CSC South Bay offers 200 programs per month (both inperson and virtually) which include support groups led by licensed mental health professionals, healthy lifestyle classes, educational workshops, counseling, and Kids Community programs.

In 2023, thanks in part to the support from the Tour de Pier, CSC South Bay served 1,950 individuals through 755 support groups. Their 572 Healthy Lifestyle Classes include restorative yoga, Tai Chi, meditation, sound bowl healing, and walking

groups to provide healing and emotional wellness. 130 educational workshops covered topics from nutrition to relaxation techniques to caregiver support. They provided 464 no-cost counseling sessions and 2023 saw an expansion to 364 new participants and an 80% increase in Kids Community attendance. CSC South Bay was recognized for their great work with the 2023 Daily Breeze Award for the Southbay's Best Nonprofit Organization.

It is thanks to you that our three charities have been able to continue their important work. Our research and patient programs are made possible because of your participation, fundraising and generosity. We look forward to seeing you at the 2024 Tour de Pier — let's continue to make a difference for our cancer community!

Research Publications from the Sahin-Toth Laboratory in 2023

The <u>Sahin-Toth Laboratory</u> remains an important part of the Hirshberg Foundation's research program and is central to our efforts on UCLA's campus. Led by our Scientific Advisory Board Chair, Dr. Miklos Sahin-Toth, his lab is focused on hereditary chronic pancreatitis, a major risk factor for pancreatic cancer. Dr. Sahin-Toth's work is in partnership with Dr. Guido Eibl in our <u>Translational Laboratory</u>. Their two teams are committed to better understanding genetics, obesity, diet, and inflammation and how they contribute to pancreatic cancer acceleration.

Dr. Sahin-Toth and his team continue to contribute to prestigious journals, participate in conferences across the globe, and secure funding from the NIH. We eagerly await more updates from Dr. Sahin-Toth and his research group in the future.

Publications from the Sahin-Toth Laboratory in 2023

1. <u>Modelling chronic pancreatitis as a complex genetic disease</u> in mice. **Gut** 2023, 72:409-410. PMC9666703.

Jancsó Z, Demcsák A, Sahin-Tóth M.

The final published form of a remarkable paper from 2022. Chronic pancreatitis is a complex genetic disease, and patients often carry multiple genetic variants. Here we crossed mouse strains with different pancreatitis-associated gene variants to study their combined effect. Mice with single genetic changes showed no pancreas disease; however, mice with both gene variants developed severe chronic pancreatitis. Gut is a preeminent journal in gastroenterological sciences.

2. <u>Trypsin activity in secretagogue-induced murine pancreatitis is solely elicited by cathepsin B and does not mediate key pathologic responses.</u> **Gastroenterology** 2023, 164:684-687. PMC10441611.

Geisz A, Tran T, Orekhova A, Sahin-Tóth M.

Our flagship paper of 2023! Here we demonstrated that trypsin activity generated by cathepsin B during the early phase of pancreatitis is a marker rather than a driver of the disease. One important implication is that cathepsin B should not be considered as a therapeutic target in pancreatitis.

Gastroenterology is the official journal of the American Gastroenterological Association (AGA), and the most prominent US publication in the gastroenterological sciences.

3. No evidence for the benefit of PPIs in the treatment of acute pancreatitis: a systematic review and meta-analysis. Scientific Reports 2023, 13:2791. PMC9935541.

Horváth IL, Bunduc S, Hankó B, Kleiner D, Demcsák A, Szabó B, Hegyi P, Csupor D.

Alexandra Demcsak (2022 Seed Grant recipient) contributed to this clinical paper showing that acid-reducer PPIs have no therapeutic benefit in acute pancreatitis. The Scientific Reports is an open-access journal publishing original research from all areas of life sciences. It is part of the prestigious Nature Research journal family.

4. <u>Mouse model of PRSS1 p.R122H-related hereditary pancreatitis</u> <u>highlights context-dependent effect of autolysis-site mutation.</u> **Pancreatology** 2023, 23:131-142. PMC10492521.

Jancsó Z, Morales Granda NC, Demcsák A, Sahin-Tóth M.

Modeling the pathogenic effect of the p.R122H cationic trypsinogen mutation in mice has been a challenge since its discovery in 1996. Here we clarify why this mutation causes pancreatitis in humans but not in mice. Pancreatology is the official journal of the International Association of Pancreatology and the European Pancreatic Club.

5. <u>Substrate specificity of human chymotrypsin-like protease</u> (CTRL) characterized by phage display-selected small-protein inhibitors. **Pancreatology** 2023, 23:742-749. PMC10528761.

Németh BZ, Nagy ZA, Kiss B, Gellén G, Schlosser G, Demcsák A, Geisz A, Hegyi E, Sahin-Tóth M*, Pál G*. *contributed equally.

The most recent chapter of our long-running collaborative work with the Pál laboratory aimed at the characterization of the substrate specificity of human pancreatic chymotrypsins and elastases. It is hard to believe, but we published the first joint paper on this problem in 2011. Pancreatology is the official journal of the International Association of Pancreatology and the European Pancreatic Club.

6. Risk of chronic pancreatitis in carriers of the c.180C>T (p.Gly60=) CTRC variant: case-control studies and meta-analysis.

Pancreatology 2023, 23:481-490. PMC10586708.

Berke G*, Beer S*, Gede N, Takáts A, Szentesi A, Hegyi P, Rosendahl J, Sahin-Tóth M*, Németh BC*, Hegyi E*. *contributed equally.

This important addition to the literature on pancreatitis genetics provides a quantitative assessment of the effect of a common chymotrypsin C (CTRC) variant on the risk of chronic pancreatitis. Pancreatology is the official journal of the International Association of Pancreatology and the European Pancreatic Club.

7. <u>CFTR p.F508del mutation carrier status is not associated with biliary acute pancreatitis.</u> **Pancreas** 2023, 52:e256-e257.

Martonosi ÁR, Németh BC, Párniczky A, Vincze Á, Szentesi A, Erőss B, Sahin-Tóth M, Hegyi P, Hegyi E.

An intriguing hypothesis that turned out to be wrong. The risk of biliary pancreatitis is not increased by CFTR mutations. Pancreas is the official journal of the American Pancreatic Association.

8. <u>Functional predictors of pathogenicity of missense CPA1</u> variants in chronic pancreatitis. **Gut** 2023

Sándor M, Sahin-Tóth M.

Another highlight of our 2023 publications! After functionally characterizing 50 carboxypeptidase A1 (CPA1) mutations, we found, to our surprise, that very few cause chronic pancreatitis and despite measurable functional defects, most CPA1 mutations are benign. Gut is a preeminent journal in the gastroenterological sciences.

Research Publications from the Hirshberg Translation Laboratory in 2023

The Ronald S. Hirshberg Translational Pancreatic Cancer Research Laboratory is a cornerstone of our research program, the first at UCLA to be solely dedicated to investigating the driving forces and biology of pancreatic cancer. Dr. Guido Eibl's research program is consistently funded by the National Institutes of Health (NIH) and continues to deepen our understanding of the intricate ways that diet, obesity and inflammation can accelerate tumor development.

We applaud Dr. Eibl and his lab and look forward to sharing more of the progress being made through their projects.

Publications from the Translational

Laboratory in 2023

Low dose combination treatment with metformin and simvastatin inhibits obesity-promoted pancreatic cancer development in male KrasG12D_mice. Scientific Reports 2023;13(1):16144 (PMCID: PMC10522691) (* dual first authorship)

Y.Teper*, L.Ye*, R.T.Waldron, A.Lugea, X.Sun, J.Sinnett-Smith, O.J.Hines, S.J.Pandol, E.Rozengurt, G.Eibl.

This original research paper reported that a combination of low dose simvastatin and low dose metformin inhibited pancreatic cancer development in a mouse model. This effect was only seen in male mice. Our results may be of translational importance for future clinical trials testing the efficacy of metformin and simvastatin in preventing pancreatic cancer progression in humans. The Scientific Reports is an open-access journal publishing original research from all areas of life sciences. It is part of the prestigious Nature Research journal family.

Presentations in 2023

American Pancreatic Association

San Diego, CA, November 15-18, 2023

"Linking pancreatitis, oxidative stress, and lipid metabolism in pancreatic cancer progression: a new avenue to early intervention."

L.Antonucci, A.Duran, I.Cobo, K.Watari, C.Nicoletti, S.Nandi, L.Caputo, **G.Eibl**, A.M.Lowy, G.Hatzivassiliou, P.Tamayo, Y.Wu, R.Sears, C.Glass, D.Scott, L.Alexandrov, P.Puri, D.Dawson, Y.Hu, M.Diaz-Meco, J.Moscat, M.Karin

"Low dosage combination treatment with metformin and simvastatin inhibits obesity promoted pancreatic cancer development in male KrasG12D mice."

Y.Teper, L.Ye, R.Waldron, A.Lugea, X.Sun, J.Sinnett-Smith, J.Hines, S.Pandol, E.Rozengurt, **G.Eibl**

"Combined Simvastatin and Metformin Treatment Targets Growth and Fibroinflammatory Responses in Pancreatic Stellate Cells."

R.Waldron, L.Huo, E.Rozengurt, G.Eibl, S.Pandol, A.Lugea