## Moving Beyond the Seed: From Bench to Breakthroughs

#### Donate today

This year marks the 20th anniversary of the Hirshberg Foundation's <u>Seed Grant Program</u>, a milestone celebrating two decades of fueling discovery. These early investments have led to life-changing advancements in early detection, treatment, and patient care — but now, the future of pancreatic cancer research faces an urgent threat. That's why moving **Beyond the Seed: From Bench to Breakthroughs** is more crucial than ever.

Since 2005, we've awarded over 135 Seed Grants across 55 institutions, planting the first seeds of groundbreaking research at UCLA, Johns Hopkins, Mayo Clinic, MD Anderson, Memorial Sloan Kettering, and beyond. As we celebrate this legacy, we recognize that the fight to cure pancreatic cancer needs more than a strong beginning, it requires support every step of the way.

At a time when federal research funding is shrinking, our work is more vital than ever. The National Institutes of Health (NIH) and Department of Defense (DoD) have slashed pancreatic cancerspecific grants, leaving researchers scrambling for resources to continue their work. Without funding, promising discoveries stall, postdocs lose support, and lifesaving progress is delayed.

Beyond the Seed is a bold new initiative aims to bridge this funding gap and ensure research doesn't just begin, but continues and reaches patients. We cannot afford to let breakthroughs fade due to lack of funding. We know that **private research has helped these ideas bloom from seeds into progress**, it's crucial we ensure that research doesn't just begin — but

continues, evolves, and reaches the patients who need it most.

The consequences of these funding cuts are already reverberating throughout the research community. "The total budget of CDMRP has been significantly cut for 2025," explains <u>Dr. Miklos Sahin-Toth</u>, Chair of the Foundation's Scientific Advisory Board. "Pancreatic cancer-specific funding was eliminated this year, and while general cancer grants remain, the chances of securing them are far worse. This disruption threatens ongoing work and the future of postdocs and students counting on support."

As <u>Dr. Timothy Donahue</u>, Director of the <u>UCLA Agi Hirshberg</u> <u>Center for Pancreatic Diseases</u> wrote us, "The recent federal budget cuts to pancreatic cancer research will significantly slow progress at UCLA and across the country. These reductions threaten our ability to develop new therapies, launch innovative clinical trials, and ultimately improve outcomes for patients facing this devastating disease."

Your donation today will fuel the next phase of research, ensuring that promising studies reach the clinical stage and lead to real impact. Together, we can carry promising science from an early hypothesis to transformative discoveries. As we celebrate 20 years of sowing the seeds of hope, help us take the next step: toward a future of breakthroughs where lives are saved.

Donate today

#### Advocate for Change: Contact Your Representatives

Beyond donating, you can make a lasting impact by <u>urging</u> <u>lawmakers</u> to prioritize pancreatic cancer research funding. Federal budget cuts are stalling critical advancements,

jeopardizing promising studies, and limiting access to innovative treatments. By <u>reaching out</u> to your representatives and government officials, you can help restore and expand research funding, ensuring that scientists have the resources needed to continue their lifesaving work. Your voice matters, policymakers need to hear from constituents who care about this issue.

#### Suggested Message:

"As a member of the pancreatic cancer community, I am deeply concerned about the federal cuts to cancer research funding and fear for the lives of patients and families facing this disease in the future. I urge you to support increased funding for pancreatic cancer research to ensure progress continues toward earlier detection, better treatments, and ultimately, a cure."

Contact your representatives today and be a champion for pancreatic cancer research!

# Dr. Andrea Bullock: Advancing Clinical Trials and Translational Research

Since 2005, our Seed Grant Program has fostered an environment for research to bloom. As we mark 20 years since our first cohort of grantees, it is more exciting than ever to look back and see all that is being accomplished.



Andrea Bullock, MD, MPH, received a 2011 Seed Grant, a pivotal milestone that helped shape her career as an investigator dedicated to pancreatic cancer research. Now, as an Assistant Professor of Medicine at Harvard Medical School and a medical oncologist at Beth Israel Deaconess Medical Center, Dr. Bullock continues her work as an academic medical oncologist and clinical investigator.

Thanks to early funding from her Seed Grant award, Dr. Bullock was able to focus on pancreaticobiliary cancers, spearheading collaborations that continue to this day on translational early detection efforts. Her work contributed to significant clinical advancements, including the routine use of germline and somatic genetic testing, the integration of PARP inhibitors into treatment strategies, and an increased focus on homologous recombination deficiency (HRD) in pancreatic cancer. These efforts have directly influenced patient care and the development of targeted therapies.

Dr. Bullock is committed to understanding cancer pathogenesis and developing therapeutic strategies that can be rapidly translated into clinical practice. Her research explores the intersection of DNA repair mechanisms and mitogenetic signaling in pancreatic cancer, including the role of somatic BRCA mutations and receptor tyrosine kinase growth factor signaling in the EGFR and PI3K pathways. She oversees multiple phase 1 and phase 2 clinical trials exploring novel targeted and immune therapies for pancreatic cancer. As a medical oncologist and clinical translational investigator, Dr. Bullock is dedicated to advancing research that enhances outcomes for pancreatic cancer patients.

Dr. Bullock envisions a future where early detection efforts are prioritized and immuno-oncology breakthroughs lead to durable responses for pancreatic cancer patients. Thanks to early-career funding from the Hirshberg Foundation's Seed Grant Program, she continues to drive transformative research that brings hope to those affected by pancreatic cancer.

Thanks to your support, we've been planting seeds of hope through our Seed Grant Program for 20 years. It's a delight to watch research grow from the lab to the clinic and bloom into clinical trials and new treatment options.

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# Dr. Ken Herrmann: Advancing Theranostics and Pancreatic Cancer Research

Since 2005, our Seed Grant Program has fostered an environment for research to bloom. As we mark 20 years since our first cohort of grantees, it is more exciting than ever to look back and see all that is being accomplished.



Ken Herrmann, MD, MBA, is a global leader in oncologic nuclear medicine with a career dedicated to advancing theranostics, an innovative field that combines diagnostics with targeted therapies.

Dr. Herrmann completed his residency in nuclear medicine at TU Munich, where he focused on PET imaging in oncology. He then completed a fellowship at Hokkaido University and earned an executive MBA from the University of Zürich. In 2015, as an Associate Professor in the Ahmanson Translational Imaging Division, he was awarded a <u>Seed Grant</u> that helped create the theranostic program at UCLA. Dr. Herrmann's Seed Grant helped advance his career and laid the foundation for UCLA's theranostic program, which is now recognized as one of the world's leading centers for research and clinical application.

Theranostics is a fusion of therapeutics and diagnostics, representing a precision medicine approach that combines targeted diagnostic imaging with precise therapeutic interventions. This often involves using radiopharmaceuticals designed to identify and treat cancer cells. For example, a radioactive compound that detects cancer cells via positron emission tomography (PET) imaging techniques is used. Subsequently, a therapeutic radioactive agent targets and destroys these identified cancer cells. This method allows for precise treatment delivery, minimizing damage to healthy tissues and enhancing treatment efficacy.

Currently, Dr. Herrmann serves as Chair of the Department of Nuclear Medicine at Universitätsklinikum Essen in Germany, leading groundbreaking research and clinical applications. His influence extends across the field as a past Chair of the European Association of Nuclear Medicine (EANM) Oncology & Theranostics Committee and as a Section Editor for the *Journal of Nuclear Medicine*. *He* is actively involved in European Innovative Health Initiative (IHI) grants, securing over €25 million (\$27 million) in funding. These projects aim to foster national and international alliances in pancreatic cancer research, with the goal of curing metastatic pancreatic cancer.

Dr. Herrmann's pioneering work in theranostics has significantly influenced research and clinical practices, offering hope for more effective and personalized treatments for patients with challenging cancers, such as metastatic pancreatic cancer.

Dr. Herrmann envisions establishing a theranostic approach for treating metastatic pancreatic ductal adenocarcinomas (PDACs), integrating diagnostics and therapeutics to enhance patient outcomes.

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#### Dr. Ethan Abel: Advancing

# Pancreatic Cancer Research with a Focus on Therapeutic Resistance

Since 2005, our Seed Grant Program has fostered an environment for research to bloom. As we mark 20 years since our first cohort of grantees, it is more exciting than ever to look back and see all that is being accomplished.



Dr. Ethan Abel, a 2021 Hirshberg Foundation Seed Grant recipient, has continued to make significant strides in pancreatic cancer research. Now in his sixth year as an Assistant Professor at Roswell Park Comprehensive Cancer Center, Dr. Abel leads a dedicated research lab focused on uncovering new mechanisms of therapeutic resistance in pancreatic ductal adenocarcinoma (PDAC).

The Hirshberg Foundation's Seed Grant was crucial in launching Dr. Abel's independent research career. His early work understanding how the <a href="HNF1A">HNF1A</a> protein impacts drug resistance in pancreatic cancer led to a prestigious National Institutes of Health (NIH) R37 grant. This grant supports his work in understanding the novel roles of HNF1A, a transcription factor in pancreatic cancer, and new proteins of interest with underappreciated roles in pancreatic cancer.

Dr. Abel's lab is preparing two research manuscripts, one of which is <u>under review</u>, based on findings supported by the Seed

Grant and R37 funding. His team includes a technician and two Ph.D. students, one of whom will defend her thesis this summer, an exciting milestone for the next generation of pancreatic cancer researchers.

With his R37 grant, Dr. Abel is investigating how HNF1A contributes to resistance against KRAS-targeted therapies. Once deemed "undruggable," KRAS has now become a viable target, opening the door to new treatment strategies. However, as with many targeted therapies, resistance remains a challenge. Dr. Abel's research aims to uncover how HNF1A interacts with BRD4 and BET inhibitors to drive resistance, with the goal of identifying ways to overcome these barriers.

Beyond drug resistance, his lab is also exploring the potential role of **HNF1A** in pancreatic cancer metastasis, illustrating how this protein may contribute to disease progression. These discoveries could open new avenues for therapeutic intervention, potentially improving outcomes for patients with advanced pancreatic cancer.

Dr. Abel is optimistic about the future of pancreatic cancer research. With the recent breakthroughs in KRAS and pan-RAS inhibitors, he envisions a shift in treatment paradigms, potentially replacing or enhancing traditional chemotherapy. He anticipates that much of the field's focus will be on understanding and overcoming therapy resistance in the next five years, ensuring that these promising new treatments can benefit more patients.

His work exemplifies the impact of private funding in fostering innovative research that leads to major scientific advancements. As the Hirshberg Foundation celebrates **20 years of our Seed Grant program**, Dr. Abel's career stands as a testament to the power of early funding in accelerating progress toward a cure.

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## Momentum Newsletter: Spring 2025

At the Hirshberg Foundation, we remain dedicated to funding groundbreaking research, supporting patients and caregivers, and rallying communities to raise awareness.

## 20 Years of Impact: Celebrating the Seed Grant Program

For two decades, the Hirshberg Foundation's Seed Grant Program has been a catalyst for innovation, providing early-stage funding to researchers pursuing promising ideas in pancreatic cancer. This year, we highlight remarkable career achievements and discoveries made by past awardees, from Dr. Guido Eibl, a 2010 awardee who now leads the Hirshberg Translational Research Lab at UCLA, to Dr. Alexandra Demcsak, a researcher in the Sahin-Toth Lab, advancing our understanding of pancreatitis and its genetic underpinnings. We are also incredibly proud of Dr. Jami Saloman for receiving an R01 grant from NCI based on her Seed Grant research and Dr. Marina Pasca di Magliano's

exceptional career and her collaborative research program at the University of Michigan. Their groundbreaking findings are shedding light on disease mechanisms and potential therapies.

The Seed Grant Program's legacy extends beyond its initial funding—many recipients go on to secure major federal grants and drive life-changing discoveries. With your support, we can continue planting the seeds for the next wave of breakthroughs.

Read more about the impact of our Seed Grant Program →

## Our Commitment to Patient Support Programs

The challenges pancreatic cancer patients face extend beyond medical treatment; a diagnosis can impact every aspect of life. The Hirshberg Foundation remains committed to deepening our investment in patient support services and resources to meet this need. We are proud to continue sponsoring the NCCN <u>Guidelines for Patients</u>, an essential, expert-approved resource designed to help individuals and caregivers navigate pancreatic cancer with clarity and confidence. An updated version will be released later this year. In addition to providing educational resources, our long-standing partnership with <a href="CancerCare">CancerCare</a> helps low-income patients navigating the hardest moments of their journey find a reprieve from a portion of their co-pay, transportation to treatment, essential medications, and unforeseen medical costs. We aim to ease the financial strain so patients can focus on healing. Your support helps patients access critical information to take control of their journey with knowledge and confidence.

Provide hope to patients today →

### 19th Annual Symposium on Pancreatic Cancer

Our 19th Annual Symposium on Pancreatic Cancer is right around the corner! This free, in-person, and virtual event is a cornerstone of our mission to educate and empower patients, caregivers, and the broader medical community. With expert-led sessions covering critical topics such as nutrition, movement, mindfulness, and medical cannabis for symptom management, attendees will gain invaluable insights and practical strategies for navigating a pancreatic cancer diagnosis. We encourage everyone to join us for this empowering day of knowledge and support.

<u>Learn more and register today →</u>

#### Pedal for a Purpose at the Tour de Pier

The Tour de Pier is back for another inspiring year! On May 18, 2025, we will gather in Manhattan Beach for this one-of-a-kind stationary cycling event, bringing together fitness, fundraising, and community spirit. Every dollar raised fuels vital research and patient support programs, helping us move closer to a cure. Whether you ride, donate, or volunteer, your participation makes a difference.

#### <u>Sign up or support a team today →</u>

From research to education to fundraising, we are united in advancing pancreatic cancer research and supporting those affected. Whether you attend our Symposium, ride in the Tour de Pier, or learn more about our Seed Grant Program, you play a

vital role in our progress.

Together, we can move closer to a future where proactive prevention, early detection, and new treatment options transform outcomes for pancreatic cancer patients. Thank you for being part of this journey!

# New Research Shows Chronic Stress and Obesity Accelerate Pancreatic Cancer Growth

A new study led by Hirshberg-funded investigators at UCLA sheds light on how chronic stress and an unhealthy diet may work together to accelerate the early development of pancreatic cancer. These findings provide critical insight into how lifestyle factors contribute to this disease and reinforce the urgent need for prevention and early intervention strategies.

Researchers identified a key molecular mechanism by which stress and obesity trigger changes in pancreatic cells that may lead to cancer. Specifically, stress-related neurotransmitters and obesity-related hormones activate a protein called CREB, which is linked to cancer cell growth. While stress hormones stimulate the  $\beta$ -adrenergic receptor/PKA pathway, obesity-related signals primarily use the PKD pathway. These findings suggest that both stress and obesity fuel pancreatic cancer growth through similar mechanisms, providing a new understanding of how lifestyle factors contribute to disease progression.

In preclinical models, mice fed a high-fat diet developed

precancerous pancreatic lesions. However, when combined with social isolation stress, these mice developed even more advanced lesions, demonstrating the compounding effects of chronic stress and obesity on cancer risk. Notably, social isolation stress had a more pronounced impact on female mice than males. Researchers hypothesize that biological differences, including estrogen levels and increased  $\beta$ -adrenergic receptor activity in females, may contribute to this heightened susceptibility.

These findings underscore the urgent need for a multifaceted approach to pancreatic cancer prevention, addressing both biological and lifestyle-related risk factors. Encouragingly, researchers suggest that existing medications could potentially mitigate these risks. Since  $\beta$ -adrenergic receptors play a crucial role in stress-related cancer growth, beta-blockers, commonly prescribed for high blood pressure, are being explored as a possible strategy to counteract these effects.

The study's first authors are Yaroslav Teper, a 2021 Seed Grant awardee and project scientist at the David Geffen School of Medicine at UCLA and Xiaoying Sun, a postdoctoral researcher at UCLA. The senior authors are Dr. Guido Eibl, director of the Hirshberg Translational Pancreatic Cancer Research Laboratory at UCLA and Dr. Enrique Rozengurt, distinguished professor of medicine and chief of research in the division of digestive diseases at UCLA and Ronald S. Hirshberg Chair in Translational Pancreatic Cancer Research.

It is thanks to our <u>Seed Grant</u> funding of Drs. Eibl and Teper, and our investments in our UCLA labs that this research has deepened our understanding of how lifestyle factors contribute to pancreatic cancer development. In today's uncertain funding landscape, we remain steadfast in our mission to advance breakthrough pancreatic cancer research that changes and saves lives.

For nearly three decades, the Hirshberg Foundation has nurtured nearly every major advance in pancreatic cancer research, to ensure that pioneering ideas receive the support they need to grow into life-saving discoveries.

<u>Learn more about Dr. Guido Eibl's research</u> →

Read more about this study from UCLA →