

Healing Blooms, A New Partnership Grows with Viola Floral

The Hirshberg Foundation is honored to partner with [Viola Flora](#) for *Healing Bloom Zooms*, a no-cost flower arranging classes for cancer patients and survivors. The class aims to support patients on their healing journey, while raising awareness for pancreatic cancer.

The *Healing Bloom Zoom* was developed by Jelena Trifunovic, M.A., owner of Viola Floral, to help lower anxiety, reduce stress, improve mood, and enhance overall emotional wellness. Mayesh, the top national flower vendor, will be donating the florals and all classes will take place virtually via Zoom. Classes are taught by Trifunovic, a floral designer and seasoned K-12 science educator. Jelena brings her years of experience as an educator to provide informative classes that teach the fundamentals of floral design while providing a safe space for patients to relax, have fun and connect.

As a child growing up, Jelena was surrounded by the beauty of the natural world. In Serbia, later Southern California, holidays and family gatherings were spent in her family's kitchen arranging flowers with her mom, Luby, sharing stories, and laughing. When Luby was being treated for pancreatic cancer, Jelena remembers taking floral arranging classes and how much joy it brought them both. It is in Luby's memory that Jelena continues to give back and provide healing through floral therapy.

We are excited to partner with Jelena, [Viola Flora](#), and [Mayesh](#) to bring our pancreatic cancer community these complimentary

flower arranging classes! Our aim is to provide resource and support for all, and we hope the *Healing Bloom Zooms* will help patients on their healing journey and support positive mental health, while we raise awareness of pancreatic cancer.

[Learn more and sign up for a Healing Bloom Zoom »](#)

UCLA Researchers Receive Over \$6M from NIH to Study Potential Immunotherapies for Pancreatic Cancer

Research teams at UCLA have received two grants from the National Institutes of Health ([NIH](#)), totaling over \$6 million dollars to study the immunobiology of pancreatic tumors and develop a series of immunotherapy clinical trials. Our [Seed Grant Program](#) funded the early stages of these research projects and provided the preliminary data used to secure this substantial NIH funding.

One of the studies, led by Dr. Timothy Donahue will further the [recently published research](#) into interferon (IFN) signaling that triggers a decrease in the level of NAD and NADH in pancreatic cancer cells, crucial cofactors for cell function. Dr. Donahue's NIH project titled *Leveraging vulnerabilities induced by interferon signaling in pancreatic cancer*, also builds on earlier IFN and NAD metabolism research from 2018 Seed Grant recipient [Shili Xu, PhD](#).

The complicated nature of the pancreatic cancer microenvironment has led to difficulties in treatment options but Stimulator of interferon genes (STING) agonists are a promising new avenue being explored in this study. This multiyear research seeks to understand the interplay between STING signaling, nucleotide/NAD metabolism and replication stress response in pancreatic ductal adenocarcinoma (PDAC) with the ultimate goal of developing new therapeutic treatments.

Through collaborative research, Dr. Donahue's team continues to investigate the targetable vulnerabilities in pancreatic tumors to develop novel immunotherapy treatments for this disease. Dr. Donahue wrote us to say, "We are thrilled that the Hirshberg Foundation has supported both of our laboratories with Seed Grants that generated data specifically for these awards."

Dr. Caius Radu, fellow senior author on the recently [published IFN study](#) and primary investigator for the second NIH grant, is a Professor of Molecular and Medical Pharmacology and Co-Director of the [JCCC](#) Cancer Molecular Imaging, Nanotechnology and Theranostics Program. Dr. Radu's NIH grant, titled *Targeting KRAS and adenosine mediated immunosuppression in pancreatic cancer* will work in collaboration with Drs. Donahue and [Wainberg](#) to better understand the immunobiology of pancreatic tumors.

Immunotherapy has had great success for the treatment of other tumors such as melanoma and lung cancer but pancreatic tumors show an intrinsic resistance to immunotherapy. This immunosuppressive tumor microenvironment, along with KRAS mutations and altered metabolism, are all hallmarks that make pancreatic ductal adenocarcinoma (PDAC) so difficult to treat.

Research by 2019 Seed Grant award recipient, [Thuc Le, PhD](#), furthered understanding of how mutant KRAS impacts nucleotide metabolism, as nucleotides play a critical role in tumor cell

growth. The recent groundbreaking discovery of KRASG12C-specific inhibitors has proved hopeful for KRAS targeted therapies and open further exploration of immunotherapy for pancreatic tumors. There is also mounting evidence that the therapeutic potential of mutant KRAS inhibitors can only be fully realized when administered with immune-priming combination therapies. Dr. Radu's project seeks to understand the interrelationships between KRASG12C inhibition, nucleotide metabolism, adenosine signaling, and immunosuppression in order to bring to clinical trial a new immunotherapeutic strategy that combines drugs across several therapeutic classes.

As Dr. Radu wrote to us, "funding from the Hirshberg Foundation enabled us to generate compelling preliminary data that were critical to the success of our [NIH] grant applications. We strongly believe that the studies proposed in these two grants will yield new fundamental knowledge about pancreatic cancer and help further clinical trials for novel immunotherapies."

The success of these NIH grants demonstrate how our early investments in researchers continues to pay off. As research deepens our understanding of the mechanisms that drive pancreatic tumor development, we are better able to devise novel strategies for prevention and treatment of this disease.

Learn more about [Dr. Timothy Donahue's NIH project](#) »

Learn more about [Dr. Caius Radu's NIH project](#) »

Celebrate Birthdays with a Facebook Fundraiser

Over the past year, many of us have celebrated *quarantine birthdays* by finding new and unique ways to share our special day with friends and family from afar. From car parades to sending balloon bouquets and Zoom parties, one way to celebrate a family member or friend's life is to support a cause close to their heart.

One of the easiest ways to share a cause that you care about is by setting up a [Facebook fundraiser](#) in celebration of your birthday or just because. Giving back is better when friends pitch in and that's exactly what happens when you create a Facebook Fundraiser. As we look forward to our own birthdays, as well as our friends' birthdays, celebrating with a Facebook Fundraiser for pancreatic cancer research is icing on the cake. Your support will raise awareness in the community and the generosity of friends and family will give us momentum to fight another day!

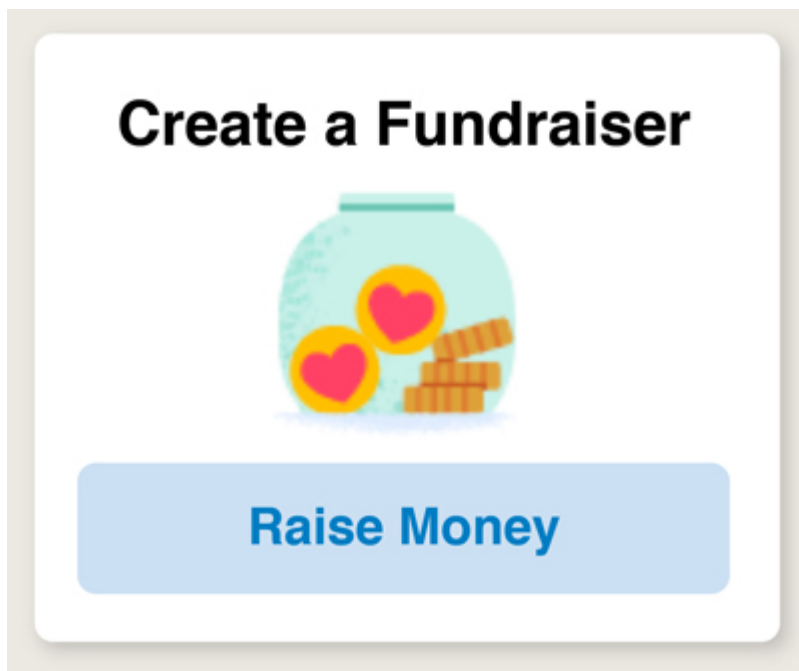
What is a Facebook Fundraiser?

Facebook Fundraisers are a feature on the social media platform that allows users to create and share a fundraising page with friends and family. The page helps supporters collect donations for a cause they care about in honor of their birthday or just because they want to give back. Users may add a photo or write a story to share why they are fundraising or keep it simple with the default text and image. Select the Hirshberg Foundation as a beneficiary and then post to your page. Fundraisers are easily shared with Facebook friends to help raise money. Give your birthday special meaning and make a difference in the fight to

cure pancreatic cancer!

Get Started in 3 Easy Steps!

[Create a Facebook Fundraiser](#) with a few simple steps to create and launch your page. If you're curious what a Facebook Fundraiser looks like, preview these wonderful Facebook Fundraising pages for a [Birthday](#) and another to [Honor a Loved One](#).



Step 1:

Click the link to open a new [Facebook Fundraising page](#)

Goal



\$0 raised of \$200



15 days left

Step 2:

Add a Fundraising Goal. Text and a Photo are Optional.



Create

Step 3:

Click the blue 'Create' button and your fundraiser will launch!

Hirshberg funded UCLA study finds combination therapy suppresses pancreatic tumor growth

UCLA Jonsson Comprehensive Cancer Center researchers, including our [Scientific Advisory Board](#) member and close [collaborator](#), Dr. Timothy Donahue have uncovered a therapy that subdues tumor growth. The study, published in the prestigious *Proceedings of the National Academy of Sciences*, was funded by the Hirshberg Foundation the National Cancer Institute. As Dr. Donahue told us, "This project helps us to better understand the biology of pancreatic cancer and how to use that information to develop improved treatment strategies."

A hallmark of what makes pancreatic cancer so difficult to treat is the tumor's extensively reprogrammed metabolic network. All cells, including cancer cells, function by transforming nutrients into building blocks for cellular processes. Many of these processes require the critical cofactors NAD and its reduced form, NADH to carry out those processes.

The published research focuses on a subset of pancreatic tumors that express high intratumoral interferon signaling (IFN). The

team found that tumors with high type I IFN signaling, trigger a decrease in the level of NAD and NADH in pancreatic cancer cells. The study furthers our understanding of the biology of pancreatic cancer, including the mechanism by which NAD depletion occurs, a vulnerability that can be used in treatment. They showed that NAD and NADH can be further depleted by inhibition of a compensatory enzyme, NAMPT. These chemical cofactors are crucial for cell functions so reducing their availability can decrease tumor growth and disease progression.

The study demonstrated that cells with high type I IFN signaling were more sensitive to NAMPT inhibitors, which inhibit a major pathway in NAD synthesis. The use of NAMPT inhibitors paired with new systemic drugs, called STING agonists, which increase type I IFN signaling, showed not only decreased pancreatic tumor growth, but also resulted in fewer liver metastases.

The findings provide evidence that if tumors with high IFN signaling can be identified, or if IFN signaling can be amplified in tumor cells, those tumors may have greater sensitivity to treatment with NAMPT inhibitors. If so, the combination could provide greater treatment options for pancreatic cancer and improved outcomes. "This project is an example of how continuing to understand the biology of this disease will help us to improve the overall survival." Dr. Donahue told us.

Funded through the UCLA Agi Hirshberg Center for Pancreatic Diseases, this research builds on the Seed Grant relationship forged in 2009 when the Hirshberg Foundation first funded Dr. Donahue. Senior author of the study, Dr. Timothy Donahue, is the Chief of Surgical Oncology, Program Director of the General Surgery Residency Program and member of the UCLA Agi Hirshberg Center for Pancreatic Diseases. [This research](#) was a collaboration with senior author Dr. Caius Radu, Professor of

Molecular and Medical Pharmacology, first authors Dr. Alexandra Moore, resident physician in the department of surgery at the David Geffen School of Medicine at UCLA, and Dr. Lei Zhou, a visiting assistant project scientist in the department of surgery.

We applaud the researchers for deepening our understanding of pancreatic cancer biology and moving us another step closer to improved treatment options and ultimately a cure. These interdisciplinary collaborations are crucial for translating research from the bench to the bedside. As Dr. Donahue said, "I am optimistic that therapy for pancreatic cancer will markedly improve in the near future." Thanks to your support, our momentum is moving us closer to a cure.

Read the [UCLA news article](#) →

Read the original [research publication](#) →

Anything is Possible When the Goal is Saving Lives!

Dear Hirshberg Foundation Family,

When 2021 began, I felt a renewed sense of hope for great things to come as we forged ahead with our efforts to be part of the cure. **Our scientists, who you helped fund, are reminding the world that anything is possible when the goal is to save lives.** This year we look forward to our investigators delivering exciting results, offering new & innovative resources to patients, and bringing our community together again. I feel

optimistic and hope you do too!

In January I was given the greatest gift imaginable for my birthday. We hosted our first Patient & Family Webinar celebrating a [10-year, 20-year and 30-year survivor](#) as they shared their personal journeys. Guests from 3 continents learned from these remarkable survivors, or 'thrivers' as one of our speakers identified. **What was once thought to be impossible has already become a reality – a full and healthier life after a diagnosis.** And the common message from everyone was "Don't listen to statistics!" These insightful [monthly webinars](#) will continue and I promise an informative year for patients and caregivers nationwide.

I also recently received notice that our Chief Scientific Advisor, [Dr. Vay Liang Go](#), received the [2021 American Gastroenterology Mentor Award](#). He is the Co-Director of the UCLA Hirshberg Center for Pancreatic Diseases and has been instrumental in the creation of this center and mentoring young investigators over the years. **Dr. Go has helped lead our vast research efforts making his role in our foundation's growth pivotal.** The pancreatic cancer medical community has made incredible strides with his guidance and we are profoundly grateful.

The progress we're making is a joint effort and results become a reality because of your donations. Your first donation or monthly gift of 2021 will allow us to keep providing [invaluable patient resources](#) and pursue more [collaborative research projects](#). As we raise awareness throughout February's [National Cancer Prevention Month](#), we ask for your support. Help us continue to take proactive steps to prevent a pancreatic cancer diagnosis for all loved ones in the future!

With gratitude,

February is National Cancer Prevention Month: Genetics

If you have a history of pancreatic cancer in your family, a basic understanding of [genetic risk factors](#) and resources may help you prevent a diagnosis or detect it early. We may not “have a say” when it comes to DNA but we are empowered to learn about pancreatic cancer, talk to family members about our health history and take steps to lessen risk. This knowledge, in combination with the resources the Hirshberg Foundation provides, can help address your concerns about Familial Pancreatic Cancer (FPC).

When two first-degree relatives (parent, child or sibling) have been diagnosed with pancreatic cancer, seeking [genetic counseling](#) is part of your path to education and prevention. Having a family history does not necessarily mean you will develop pancreatic cancer, but it can increase your risk. Familial or hereditary pancreatic cancer accounts for about 10% of pancreatic cancer diagnosis.

Gene mutations can be passed down through generations, known as inherited mutations and can increase your risk for developing pancreatic and other cancers. For example, the [BRCA1 & BRCA2](#) gene mutations, in part, account for an increased risk of cancer among [Ashkenazi Jews](#). Several [genetic mutations](#) are currently being researched for their connection to an increased

risk of developing pancreatic and other cancers. These genes include: PRSS1, BRCA1, BRCA2, ATM, PALB2, MLH1, MSH2, EPCAM, MSH6, APC, STK11, and CDKN2A. Each of these genes have a different risk profile and different cancer risks depending on the individual gene. [Genetic testing](#) and counseling can lead to medical management to reduce the chance of developing cancer or increased surveillance for cancer, with the goal of detecting cancer earlier when treatment options and outcomes are better.

Learning your family history and knowing the risk factors can help you take proactive steps. You can find a genetic counselor in the US or Canada by contacting the [National Society of Genetic Counselors](#). The [National Comprehensive Cancer Network](#) (NCCN) recommends genetic counselling for all individuals diagnosed with pancreatic cancer, however, genetic testing is not limited to patients. As you investigate your family history, it is also important to understand the basics about this disease. Take the time to discover [what your pancreas is](#) and which [modifiable risk factors](#) you can prevent. Understanding your genetic make-up will help you determine whether your DNA puts you at higher risk and how to tackle those challenges.

Learn more about [genetic risk factors](#).

Genetic Counseling

[Wendy Conlon](#), MS, CGC, a genetic counselor with the UCLA Center for Pancreatic Diseases is a highly esteemed and trusted speaker for Hirshberg Foundation educational events. She oversees surveillance of patients and their family members, provides risk assessment, genetic counseling, and genetic testing for individuals with pancreatic cancer and their at-risk relatives. She helps individuals and families navigate their treatment options, as well as other cancer prevention strategies. In 2020

she was featured in our ongoing Patient & Family Webinar Series providing important updates on [genetic counseling and access to testing during COVID 19](#). In 2019, she also provided her expertise when she presented on [Why Should I See a Genetic Counselor](#) at the Hirshberg Foundation's annual Symposium on Pancreatic Cancer. We invite you to take advantage of these videos and other resources shared so you can learn about the benefits of genetic counseling.

Watch [Why Should I See a Genetic Counselor](#)

Watch [Genetic Counseling: Review and Updates During COVID-19](#)