How the Annual Weekend Inspired Me to Get More Involved

by Lisa F., VHL patient & caregiver

My personal journey with VHL began over 25 years ago when several of my family members were first diagnosed. I have officially known that I have VHL for a little over 20 years and have been proactive with my own care, especially about following the surveillance guidelines. But, I knew there was more that I could be doing, so I started to explore the VHL Alliance and all the programs and activities they have available.

When my son was born and I learned he has VHL, I knew this was the push I needed to become more involved. I started off interacting with others on the VHLA’s Facebook page, reading and commenting on posts. When I saw that there was a new Clinical Care Center in Indianapolis, I reached out to VHLA. This was the chance I was looking for. I agreed to become the liaison between the CCC and the VHLA, but I still wanted to do more. When it was announced that the 2019 Annual Family Weekend would be held in Indianapolis, I was thrilled with the opportunity to work with Heidi and two other VHL patients who are Ambassadors.

I was a little leery at first because I am uncomfortable asking people for things, but planning the events with our little team was really fun. Heidi worked hand in hand with me, providing me with the materials, ideas, and encouragement I needed. It turned out to be surprisingly easy to get donations! People can see when something is important to you and want to help in whatever way they can. I strongly encourage you to reach out to Heidi and see how you can help with Salt Lake City 2020 or other events happening around the country! It’s so fulfilling and inspiring.

The Annual Family Weekend was amazing and it felt fantastic to have been part of the group that pulled everything together. I met so many great people that I can really relate to and created new friendships with others who are uniquely knowledgeable about my life and the struggles I deal with every day. It was truly wonderful! Even though most of us do not live close, they are people I feel like I can reach out to whenever I need.

As soon as the Annual Family Weekend was over, I wanted to continue being involved so I didn't lose the amazing feeling. After talking with Heidi and other Ambassadors, I decided to become part of a new team to keep that connection.

It's been really exciting to become more involved in VHLA. I encourage everyone who isn't already connected to reach out to the staff to see what you can do. There are so many different opportunities; you'll be able to find something that fits into your schedule and you can be involved no matter where you live. There are also a lot of resources to help, many of them can be found on vhl.org/give/volunteer-resource-page. Email heidi.leone@vhl.org and join us! It is so fun and rewarding. You won't be sorry!
VHL UPDATE

2019 VHLA ANNUAL MEETING SUMMARY

The 2019 VHL Alliance Annual Meeting was held in Indianapolis, IN. The agenda included eight clinical presentations, as well as patient and caregiver break-out sessions focusing on the emotional aspects of VHL. Below we highlight one of the presentations.

Aashish Patel, MD, a radiologist and member of the VHL Clinical Care Center at Indiana University, presented on the imaging of VHL-related tumors. VHL is associated with a number of different lesions, including tumors and cysts in the brain, spine, eyes, ears, pancreas, kidneys, adrenals, lungs, liver, and reproductive tract. Retinal hemangioblastomas (or angiomas) are vascular tumors that occur in the retina of the eye. They may develop in up to 70% of people with VHL, involving both eyes in about 50% of cases. These tumors are typically found in the peripheral retina (85%) or juxtapapillary region (15%) of the retina. Visual loss occurs when the tumor causes a retinal detachment. Retinal hemangioblastomas are diagnosed through a dilated retinal exam, although an MRI of the brain or orbit may reveal a tiny enhancement.

Endolymphatic sac tumors (ELSTs) are benign tumors that develop in 10-15% of VHL patients, occurring in both ears in about 30% of cases. They form in the endolymphatic duct in the ear and can cause hearing loss, ringing in the ears, vertigo, and facial paresis. ELSTs may be very small and are difficult to spot on a scan. They require dedicated imaging, using MRI or CT.

Pheochromocytomas (pheos) are VHL-related tumors that occur in the adrenal glands. They tend to be seen in younger patients and often occur in multiples. Pheos that occur outside of the adrenal glands are known as paragangliomas (paras). Pheos can be diagnosed using blood or urine tests for metanephrines, while paras cannot. Although sometimes difficult, both can be viewed in imaging using CT, MRI, MiBG, or DOTATATE PET/CT scans.

Tumors of the reproductive tract that are associated with VHL include epididymal papillary cystadenomas in men and broad ligament papillary cystadenomas in women. They occur in about 35% of patients, are benign, and are typically asymptomatic. These tumors may manifest as a cystic lesion with a thick wall and peripheral solid nodules, completely cystic, completely solid, or mixed cystic-solid. They are often misdiagnosed as testicular or ovarian tumors and can be scanned using ultrasound or MRI.

Another topic being evaluated is the risk of gadolinium accumulation and toxicity from contrast in MRI scans. Some research has shown evidence of nephrogenic systemic fibrosis being linked to gadolinium exposure. New dual energy CT techniques that involve lower radiation exposure and less contrast iodine are being explored to improve imaging quality, while reducing lifelong risk to patients. DOTATATE PET/CT technology is being evaluated as an imaging modality that is very accurate, especially for pancreatic and adrenal lesions, and may play a large potential role in the ongoing surveillance of VHL-related lesions.

Dr. Patel concluded by saying that there are benefits and drawbacks to each type of imaging technology. Ultrasound does not use radiation, is widely available, offers real-time imaging, and has a lower cost. However, it offers limited coverage and is user dependent. CTs offer a short exam time, high resolution imaging and large area of coverage, but expose the patient to radiation, require an iodine contrast agent, and are more expensive. MRIs offer high resolution with no radiation exposure and a large area of coverage, but require a long exam, a gadolinium contrast agent, and are more expensive. Nevertheless, ongoing scanning in VHL patients is crucial for a positive prognosis and research is underway to improve surveillance methods and technologies.

See the rest of Dr. Patel’s presentation and all of the Annual Meeting lectures at vhl.org/annual-meeting-notes.
COFFEE AGAINST CANCER: A CONVERSATION ABOUT VHL

by Jennifer Galenkamp, VHL caregiver & VHLA Board Member

What better time to think about fresh springtime energy than in the depths of February? Use one of these long, cold, dark evenings to make a plan for VHL Awareness Month! And what better way to raise awareness than hosting a Coffee Against Cancer?

Last May, the VHL Alliance launched a new initiative, designed to both raise awareness and funds. Through personal small gatherings, we want to tell our story and explain VHL’s significance in finding a cure for cancer. Despite the short lead time last year, 5 coffees were held around the world, attended by approximately 50 people, and, although fundraising was not the driver, raised $2,000 dollars. Gatherings ranged from a Saturday brunch coffee morning at home for 30, to an office coffee break attended by 4 - anything goes. Perhaps someone will host an espresso martini Coffee Against Cancer!

This year, we would like to ask each member of the VHL community to consider hosting a Coffee Against Cancer. Sunday, May 3rd is our target date for kicking off VHL Awareness Month, but feel free to fit something in your schedule. Why would we like you to do this?

First, awareness: while this year’s Nobel Prize in Medicine, awarded to Dr. Kaelin, has certainly boosted awareness of VHL, the more people that are aware of VHL and its potential role as a key to the cure for cancer, the more interest in research. Most people have been touched by cancer and share our hope for a cure.

Second, fundraising: The more funding, the brighter our hope for a cure. VHLA is a small organization, and our primary source of funding is private donations. In 2019, we were able to award $325,000 for 3 research grants, the most ever! We need your help to continue that momentum.

So, here are the excuses that may now be running through your mind:

1) I don’t know how to organize a Coffee Against Cancer. Do you have a coffee pot and a box of cookies? A Coffee Against Cancer does not need to be large, and is first and foremost an awareness event. Start small – invite a few friends and neighbors over for morning coffee, people who know about your (or your families struggles with VHL. Take the opportunity to explain the bigger picture about VHL, and some of the good work being done to find a cure. Leave a jar on the countertop or at the door for donations. Follow up with emails asking whether they would like to be included on the VHLA mailing list. There is a helpful step-by-step guide at vhl.org/coffeeagainstcancer.

2) I’m afraid of public speaking. Not too many people are comfortable speaking in front of a group. But this is not about you: it’s about finding a treatment or cure for VHL. Use the examples available at vhl.org/coffeeagainstcancer or even just show a video to introduce VHL. Personalize it. Type it up in larger font on a sheet of paper or on note cards. Practice in front of a mirror and to your family.

3) Philanthropy is for wealthy people. Nope: it’s for everyone. Think about the local crowd-funding websites, bake sales, car washes, and churches. Many people are very happy to help a cause near to their hearts – or to the heart and life of someone they know and care about. Allow people to be kind to you. You are actually doing them a favor by giving them the opportunity to help.

4) I won’t raise very much money so there’s no point. If 200 people each raise $50, that’s $10,000! If 250 of us raise $100, that’s a $25,000 pilot grant AND if 150 of us each raise $1,000, that’s a $150,000 research grant! It all adds up. You might surprise yourself.

Help the VHL Alliance spread awareness of VHL and kick off VHL Awareness Month with the second annual Coffee Against Cancer. We encourage each member of the VHL community to invite friends, family, and neighbors to gather for a cup of coffee and a conversation about VHL.

For more information and ideas, please see the Coffee Against Cancer Toolkit at vhl.org/coffeeagainstcancer or contact heidi.leone@vhl.org.
Gene therapy is an exciting medical technology that works by modifying a patient’s genes or DNA. Unlike standard drug therapies, gene therapy offers the theoretical possibility of a cure for patients with a genetic condition. However, for conditions like VHL, it’s not that simple.

Gene therapy is often accomplished by using an inactivated virus to enter cells and insert tailored DNA or RNA into the cell’s genome. Delivery systems that do not require viruses also exist. Gene therapy has been used in human clinical trials since the 1980s, but it was only recently approved by the Food and Drug Administration (FDA) in 2017. A new technology using a molecule called CRISPR is showing a great deal of promise and has been in the news a lot lately. CRISPR is used for “gene editing” as it can remove abnormal genetic material and replace it with the correct DNA sequence. This molecule is also typically delivered using an inactivated virus. This technology was the American Association for the Advancement of Science’s Breakthrough of the Year in 2015.

Application of gene therapy for VHL requires thinking about two different goals: prevention of tumor formation and treatment of existing tumors. These two objectives require separate approaches that have unique challenges. Prevention of tumor formation is the ultimate goal for VHL. This would require delivering gene therapy to the whole body, or to specific organs at risk (brain, kidneys, pancreas, etc.). Unfortunately, gene therapy is currently limited by transduction efficiency – or how well the new gene is incorporated into the target cells. First, the inactivated virus may not enter all cells at risk. Second, even if the virus and the correct gene are delivered to a cell, the gene may not always be incorporated into the cell correctly. In the end, only a fraction of the target cells will get the gene. Because of these limitations, achieving a true “cure” is difficult. With present technology, the more likely outcome would be a relative reduction in the risk of developing tumors.

Treating existing tumors would require a very different approach because many factors are important for tumor persistence and growth. Simply replacing the gene for the VHL protein may not be enough. Gene therapy could be used to selectively target tumors and insert a “suicide” gene into their genomes that would cause their cells to die. This strategy shares several of the same limitations as curative approaches. First the virus, or delivery method, must find a way to identify and enter tumor cells selectively while leaving normal cells untouched. After that, the same limitations of transduction efficiency remain.

Overall, gene therapy may be the way we eventually cure VHL. Unfortunately, the technology is not quite where we need it to be at this time, especially for a challenging condition like VHL. Fortunately, there is ongoing research on gene therapy for a variety of simpler conditions and as technology continues to improve, it will hopefully be able to be applied to VHL.

Celebrate Rare Disease Day – February 29, 2020

Send a letter to your Congressional Representative to help educate them about VHL and advocate for research funding. For more information, contact ilene.sussman@vhl.org.
Letter: vhl.org/Letters-to-Congress
Find your Representative: vhl.org/find-congressrep
Do you want to help find a cure?

PARTICIPATE NOW!!

Learn more at: vhl.org/MyVHL

Pay it forward by helping researchers and others with VHL

RECENT DEVELOPMENTS IN VHL-RELATED RESEARCH

by Amit Tirosh, MD, VHL Clinical Care Center Sponsor, Sheba Medical Center

There have been a number of interesting developments in various areas of VHL research:

The association between mutation and the related manifestations has been further studied, with research suggesting a possible association between VHL missense mutations and the development of pheochromocytomas and pNETs (Fagundes et al. 2019). Additional research analyzed data from VHL patients in order to better understand the relationship between mutation and manifestations (Hong et al. 2019), as well as the association between different VHL-related tumors and the risk to patients (Zhou et al. 2019). The role of genetic evaluation in hereditary RCC syndromes, including VHL, was also examined (Lui & Shuch 2019).

Researchers learned about previously unreported functions of the VHL gene, including in immune-related processes and viral infections (Zhu et al. 2019) and on the microscopic processes that may be damaged by a VHL mutation (Bouhamdani et al. 2019).

A study was published about a new drug that inhibits a protein called CDK4/6. It is now being evaluated for treating VHL-related RCC (Nicholson et al. 2019). Additional published research described the utility of a type of drug known as tyrosine kinase inhibitors, and their potential use in VHL (Ma et al. 2019).

Published reviews discussed the ocular manifestations of VHL (Ruppert et al. 2019). A clinical study assessed the potential use of telemedicine in the retinal surveillance of VHL patients (Mansfield Smith et al. 2019). An additional study described new methods for treating eye neoplasms in VHL (Sturzeneker et al. 2019).

Several patient descriptions have been published in peer-reviewed journals that were related to VHL. In one, a patient presented with two different concurrent genetic mutations, demonstrating the open mind every clinician needs to have when confronting an unusual presentation of VHL (Negro et al. 2019). In another article, the work-up and management of a male VHL patient with obstructive azoospermia due to epididymal cystadenomas was described (Gomella et al. 2019). A description was also published discussing the ongoing use of anti-angiogenic drugs for the treatment of retinal and spinal hemangioblastomas in a young patient (Salim 2019).
The VHL Alliance has a lot of exciting updates to our Clinical Care Center (CCC) Program:

The VHLA CCC webpage has been redesigned, with a focus on making it simple and easy to find a CCC near you. In addition, every CCC now has its own page where you can find an abundance of resources and information specific to that CCC. Learn more about the CCC Program and find one near you by going to: vhl.org/ccc.

The new CCC Spotlight series has officially been launched! Each month, we will showcase a different Clinical Care Center and one of their team members with an interview and a Facebook Live video session. Our first CCC Spotlight is on Dr. Russell Lonser, an accomplished neurosurgeon and the sponsoring physician of the VHL CCC at Ohio State University. Learn more about Dr. Lonser and the great team at OSU by going to: vhl.org/osu.

The VHLA Clinical Advisory Council has renewed recognition for the following CCCs: Stanford University (Palo Alto, CA), UNC (Chapel Hill, NC), Cleveland Clinic (Cleveland, OH), NY Presbyterian/Columbia (New York, NY), Mayo Rochester (Rochester, MN), SUNY Upstate (Syracuse, NY) and OSU (Columbus, OH).

VHLA’s Wellness Coaching Program

Looking for tools and techniques to help reduce stress, create ease, and boost resilience?

"The Wellness Coaching Program helped me in more ways than I could have imagined. Learning about myself, my values and how I react to certain situations, the good and the tough, has been truly enlightening. This recognition, together with some really useful tools, have certainly left me feeling less stressed, more resilient and better equipped for whatever the future may bring."

-Kat C.

To learn more about the program visit: vhl.org/wellness-coaching
Or email ilene.sussman@vhl.org

May Awareness Month

What are you doing to promote VHL Awareness?
Contact heidi.leone@vhl.org for help or ideas!

Coffee Against Cancer
Sunday, May 3rd
Your home, place of work, or place of your choice

Dinner Honoring Nobel Laureate William G. Kaelin, JR, MD
Wednesday, June 3rd
New York, NY

Julie Flynn Hope Retreat for Young Adults
Friday, June 12 - Sunday, June 14
Boston, MA
vhl.org/YAR

For more information visit:
vhl.org/events
Welcome VHLa’s Newest Board Members

Prashant Kudva has more than 14 years of experience in finance, mergers & acquisitions, capital raising, and valuation with a focus on biotech. Prashant currently works at AMAG Pharmaceuticals where he leads M&A, licensing, and collaboration transactions in various therapeutic areas. Prior to AMAG, Prashant was an investment banker in the healthcare space focusing on mergers and acquisitions, advisory and capital raising with various investment banks and advisory firms including Kaufman, Hall, Stifel, Lazard, and Merrill Lynch.

Having worked with a number of biotech, and more specifically oncology companies, Prashant believes the VHL gene might be broadly relevant in other cancers, and studying and curing VHL, may be key to understanding and curing other cancers.

Kevin Nichols is the Vice President of the Principal Strategies Group, focusing on portfolio management, sourcing investments and trading across the capital structure. He was also an associate on the Institutional Sales and Trading Group where he was responsible for third party manager, alternative investment & single security due diligence, discretionary strategy development, portfolio management, and asset allocation strategy for the group’s institutional and high net worth clients.

Kevin was a columnist for The Wall Street Journal and Dow Jones as part of its investment banking segment, writing on such topics as mergers and acquisitions in the energy and financial services sectors. He has appeared on Fox Business News and Sky News.

He and his wife, Leah, an interior designer, and their four children reside in Old Greenwich, Connecticut.

Join us for the 2020 Julie Flynn Hope Retreat for Young Adults

Learn more at vhl.org/YAR

Ages 18-32 | June 12-14, 2020 | Boston, MA
Help the VHL Alliance spread awareness and kick off VHL Awareness Month by hosting your own Coffee Against Cancer! Visit vhl.org/coffeeagainstcancer for more information or email heidi.leone@vhl.org.