GUTMANN AWARDED TWO INTERNATIONAL FELLOWSHIPS

David H. Gutmann, MD, PhD, the Donald O. Schnuck Family Professor and Director of the Neurofibromatosis (NF) Center at Washington University in St. Louis, has been awarded the Alexander von Humboldt Professorship, Germany’s highest academic award for researchers outside the country, and has been named an Einstein Visiting Fellow by the Berlin Institute of Health.

While continuing to lead his laboratory and the NF Center, Gutmann also will travel regularly to Germany to work with Helmut Kettenmann, PhD, at the Max Delbrück Center for Molecular Medicine in Berlin.

Gutmann and Kettenmann will co-lead a team investigating the relationship between a type of brain cell, known as microglia, and neurological diseases, including brain tumors and autism. For these studies, they will leverage Kettenmann’s expertise in microglia and Gutmann’s clinical and research experience with the neurofibromatosis type 1 (NF1) genetic disorder. Although the German awards are designed to bring international expertise to Germany, Gutmann expects the collaboration will expand the overall understanding of brain tumors and autism in NF1, providing new insight into the causes of these common problems in the general population.

“What we’re going to learn and bring back to Washington University in terms of approaches, technologies and general knowledge will move us closer to understanding and treating neurofibromatosis,” Gutmann said.

This article originally appeared in the Washington University School of Medicine News Hub on June 8, 2017.
PATIENT SPOTLIGHT: ALEXANDRA SCHROEDER

My introduction to the world of Neurofibromatosis began when I was only three years old. It started with a bug bite on my neck and fevers. This was in 1998, and at that time, not a lot was known about NF. On a visit to our local pediatrician, he could not explain the fevers that I was experiencing at night. Also, on further examination while looking at my back, they noticed that it appeared to be curving to one side. After a CAT scan, he decided to send me to the “big guns” St. Louis Children’s Hospital. After a CAT scan and an MRI, the doctors discovered a tumor in my back. They then performed surgery to try to remove the tumor. At this point, I was diagnosed with Neuroblastoma—a childhood cancer with a survival rate of 50%. As a result of this diagnosis, I stayed on the oncology floor for five days. At this time in my early life, Batman was my hero, so I had a Batman doll at my side at all times, through the various tests and even surgeries.

After the fifth day, before I was to begin chemotherapy, a young doctor entered my hospital room with tears in her eyes, and told us that I did not have Neuroblastoma, but rather something called Neurofibromatosis Type 1 (NF1). Soon after this diagnosis and more tests, I was introduced to Dr. David Gutmann, who over the past eighteen years, has always been there for us whenever we had any questions or concerns regarding NF1.

I ended up developing severe scoliosis as a result of the neurofibroma in my back. It was necessary to have instrumentation, or rods, put into my spine, which was followed by six months of wearing a hot, plastic brace. The upside to that, was that my brace was decorated with kittens, which was very important to a three-year-old girl. That is what we did—making the most of each situation. Each new challenge always looked like a new adventure.

After all of that, I had one more challenge. More surgery faced me in the fall of my sixth grade year. The curvature of my spine had become more severe, so I went through six weeks of traction. I was in the good hands of a world-renowned orthopedic surgeon at St. Louis Children’s Hospital. My mother and I had a seven week stay in the hospital and to say the least, we made the most of it. To begin with, I had a halo put into place for traction, and it was decorated with the most beautiful rhinestones. My stay was during the month of October, so my hospital room was decorated for Halloween, which allowed us to go on many “journeys” throughout the hospital. The last night before my six-hour surgery just happened to be Halloween, and in the spirit of St. Louis Children’s Hospital, there was trick-or-treating and fun Halloween festivities to take our minds off where we were heading. Oh, and I dressed up as a leopard with great face paint. The next day began with a six-hour surgery, now the fun was over, but it was worth it, because the traction had made me straighter and a few inches taller.

Fast forward a few years. I have always had big dreams, so when I was in high school, I really wanted to attend the University of Illinois to study graphic design. Throughout high school, I was in love with biology, music, and the arts. Those were the classes that I excelled in, but I had always had problems with mathematics (I had found out later that could be caused by NF1), which sometimes did make high school a little difficult for me. I was always worried that I wasn’t good enough to get into so a prestigious school, but through hard work and dedication, I made it, and entered The University of Illinois as a freshman in the fall of 2014.

The University of Illinois has provided me with some of the best times of my life. I am taking design classes to prepare me for my future career, and have joined various clubs and a sorority on campus. In addition, I cheer for my school in sporting events until my voice gives out. I can’t begin to count the number of amazing people that I have met and I am continuing to meet.

Halfway through my college career, I became more curious about NF1 and what it could have in store for me. I remember one night after I researched it for hours, I learned so many things about the condition I have had my entire life. Why or how I would do things and why I looked the way I did, and also why I had gone through so many of those tribulations as a kid.

NF1 has made me a very strong person, and continually makes me stronger every day. I will never let it stop me from doing the things that I love. During my junior year, I decided to combine my interest in graphic design with a deep passion for medicine. I’m not sure if that stemmed from being in and out of the hospital as a kid or from reading countless National Geographic magazines. After researching potential career options in medicine and graphic design, I stumbled upon The Association of Medical Illustrators website. These are the people who design all of those colorful pictures in your biology or anatomy book. This is exactly what I want to do with my life.

In the summer of 2017, I was awarded an internship as a graphic designer at the Washington University Neurofibromatosis Center, where I have been creating medical illustrations. I am so appreciative for this opportunity. A big thank you to Dr. Gutmann and his staff. This internship has provided me with an amazing opportunity to have a taste of what my dream job would look like.

Written by Alexandra Schroeder

Please check out Alexandra’s wonderful illustrations as they are posted on the Gutmann Laboratory website (gutmannlab.wustl.edu).
ANASTASAKI PROMOTED TO SENIOR RESEARCH SCIENTIST

Corina Anastasaki, PhD has been promoted to the role of Senior Research Scientist in the Gutmann laboratory. Dr. Anastasaki completed her undergraduate Honours studies in Genetics at the University of York and her Masters of Science training at Edinburgh University. For her PhD, she worked in the laboratory of Dr. E. Elizabeth Patton, where she developed zebrafish models of the rare pediatric genetic condition, Cardiofaciocutaneous Syndrome (CFC).

Because CFC syndrome and Neurofibromatosis Type 1 (NF1) are both characterized by increased activity of the RAS protein, Dr. Anastasaki joined Dr. Gutmann’s laboratory in 2012 to develop NF1 patient induced pluripotent stem cell (iPSC) lines. iPSCs can be converted into nearly every cell type in the body, allowing her to study the impact of NF1 gene mutations on human brain and nerve cell function. The repository of NF1-iPSCs she generated has become an invaluable resource tool for the NF research community, both at Washington University and internationally.

In 2017, Dr. Anastasaki was promoted to a new position in the NF Center. While she will remain active in fundamental laboratory research, she is also guiding the scientific direction of translational research in the Center, as well as training and supervising undergraduate and graduate students. In addition, Dr. Anastasaki has assumed public outreach responsibilities that aim to bring the scientific activities and advances in the NF Center to the public.

NF CENTER FACULTY AWARDED PRESTIGIOUS FRANCIS S. COLLINS SCHOLARS AWARD

Angela C. Hirbe, MD, PhD, Assistant Professor in the Division of Medical Oncology at Washington University, was recently selected as a 2017 recipient of the Francis S. Collins Scholars Award in Neurofibromatosis Clinical and Translational Research.

The Francis S. Collins Scholars Program in Neurofibromatosis Clinical and Translational Research was established to build a community of exceptional clinician scientists who will lead neurofibromatosis type 1 (NF1) research and clinical care.

The Scholars Program is named in honor of Dr. Francis S. Collins, who led the team that discovered the NF1 gene in 1990. In addition to this work, Dr. Collins has been at the forefront of advancing translational science in his roles as Director of the National Institutes of Health (NIH) and former Director of the National Human Genome Research Institute.

By providing the “Collins Scholars” with critical support and training in the management of NF1 and the conduct of rigorous clinical translational research, the program aims to revolutionize the field of NF1 and improve treatment options for patients now and in the future.

Dr. Hirbe’s clinical and research expertise is focused on malignant peripheral nerve sheath tumors (MPNSTs) in individuals with NF1. We are so proud to celebrate this honor with her!
NICOLE’S NOOK: CREATING BOOKS WITH THE BOOK CREATOR APP

Reading on a device can be much more appealing to some students. It can engage them and motivate them in ways that traditional books do not. In addition, it can provide accessibility features that promote comprehension, processing and independence.

Book Creator is an app that allows you to create a variety of robust reading materials. It is available in the iTunes Store for $4.99, and the Google Play Store for $2.49. Uses for this app include picture storybooks, comic books, journals, textbooks and social stories. You can create daily journals to provide self-reflection or create visual schedules to help with task analysis, transitions and anxiety. Book Creator can also be a teaching tool used to create tutorials, lessons or video modeling.

UPCOMING EVENTS

CLUB NF GOES ICE SKATING
DECEMBER 2, 2017, 10am-12pm

BEAT NF 2018 - SPRING SESSION
MARCH 13 - APRIL 10, 2018

For more details, or to RSVP, please visit our events website at: https://nfcenter.wustl.edu/events/

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