

*The Hallmarks of*



**CANCER  
BIOLOGY**

VOLUME 2 - ISSUE 1  
JUNE 2015

Faculty  
in focus



Behind  
the scene



Our  
stories

RUN...  
to inspire



UAB GBS CANCER BIOLOGY THEME

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# From the Directors

**S**PRING is in full bloom at UAB, and there has been a lot of activity on campus. In this issue of The Hallmark, we highlight a few of the ways that Cancer Biology students and faculty are advancing the understanding and treatment of cancer. This issue's 'Faculty Focus' features those leading UAB's efforts in brain tumor research. These scientists are investigating diverse aspects of brain tumors, ranging from glioma stem cell biology to cancer kinomes, unique glioma models and novel therapeutics. We also celebrate the many accomplishments of the Cancer Biology graduate students, who have been advancing through their graduate careers, publishing manuscripts and presenting their work at local and national meetings. In addition to their hard work in the lab, our students have been interacting with the cancer patient advocacy community, learning how their research might impact those affected by cancer and supporting efforts to raise additional funds for research. Last, but not least, Josh Fried goes "Behind the Scenes" to find out more about Patricia Matthews, the Cancer Biology Program Manager, who somehow manages to keep track of all the students, courses, faculty, and progress in the Cancer Biology theme. We hope you enjoy this issue of the Hallmark! •

*Theresa Strong Ph.D. & Lalita Shevde-Samant Ph.D.*



Visit our website: <http://www.uab.edu/gbs/cancerbiology>







Dr. Benveniste



Dr. Willey



Dr. Hjelmeland

## Faculty in focus

# Brain deep

Interview by ANH TRAN

IN THIS ISSUE, WE HAVE THE HONOR TO FEATURE THREE OF UAB'S BRILLIANT BRAIN CANCER RESEARCHERS: DRS. ETTY (TIKA) BENVENISTE, CHRISTOPHER WILLEY AND ANITA HJELMELAND. REGARDLESS OF THEIR DIFFERENT APPROACHES, THEY HAVE BEEN TIRELESSLY CONTRIBUTING TO GLIOBLASTOMA RESEARCH, SEARCHING FOR THE HIDDEN CAUSES AND TREATMENT FOR THE DETRIMENTAL DISEASE. BESIDE THEIR ROLE AS PRINCIPLE INVESTIGATORS, THEY ALSO SUCCESSFULLY PLAY DIFFERENT IMPORTANT ROLES IN UAB AS KEY MANAGER, CLINICIAN AND MENTOR. LET'S HEAR WHAT THEY HAVE TO SHARE ON THE FUTURE OF BRAIN CANCER RESEARCH.

**Dr. Etty (Tika) Benveniste**, Alma B. Maxwell UAHSF Endowed Chair; and Professor and Chairman of Cell, Developmental and Integrative Biology, received her Ph.D. from UCLA in the field of immunology. Dr. Benveniste has served as the Director, Graduate Program in Cell Biology and as Associate Dean, Office of Postdoctoral Education. She became Chairman of the Cell Biology Department in 2000, Associate Director, Basic Science Research, Comprehensive Cancer Center, in 2006, and Chairman of the newly formed department of CDIB in 2012. In January 2015, she has been appointed interim senior associate dean for Research Administration and Development in the UAB School of Medicine. This is a new position created by Selwyn M. Vickers, M.D., senior vice president for Medicine and dean of the School of Medicine, to help lead the school's efforts in advancing innovative, collaborative and interdisciplinary approaches to research.

**Q: As a key senior administrator, what is your plan for the future?**

**A:** The UAB School of Medicine (SOM) has created the Academic Enrichment Fund (AEF) which seeks to support the most innovative and timely research conducted by faculty in the SOM. These funds are being distributed based on competitive applications written by the faculty in three areas: 1. Basic Science Discovery; 2. Inflammation, Immunity and Infection (I3); and 3. Outcomes/ Health Disparities. This infusion of support will position UAB faculty to apply for large, multi-PI awards and Center Grants in these different areas, and enhance our competitiveness for such awards. Most importantly, this is an investment and commitment to our faculty.

**Q: What do you think about current brain cancer research in UAB?**

**A:** We have some of the best investigators in the areas of glioma stem cells, signaling cascades, clinical trials, and mitochondrial dysfunction, to name a few. Our faculty in the brain tumor field are very well regarded nationally for their research and clinical activities. Given our strength in this area, UAB was awarded an NIH-funded T32 Training Grant in Brain Tumor Biology, which was competitively renewed in 2013. This training grant supports both pre and postdoctoral fellows, and has been a great success towards promoting the careers of these trainees. In addition, we offer an outstanding Advanced Course on Brain Tumor Biology, which will be offered in Fall, 2015 by Dr. Anita Hjelmeland.

**Q: As an experienced mentor, what do you think about the roles of graduate students in research in UAB? What can we do to make things even better?**

**A:** Being a mentor is one of the most gratifying parts of an academic career, and a tremendous honor and responsibility. Graduate students are really the foundation of scientific research at UAB, and a very integral part of the success of our faculty. I do feel that in addition to rigorous scientific training, it is important to develop other skill-sets, such as teaching excellence, scientific writing, business and management skills, and communication with the lay public. We have a large number of programs at UAB to expose both graduate students and postdoctoral fellows to these different areas, which will complement and enhance the scientific training.

**Dr. Christopher Willey** obtained his M.D.-Ph.D. degree in Molecular Cellular Biology and Pathobiology from the Medical University of South Carolina. Dr. Willey joined UAB Department of Radiation Oncology in 2008 as Assistant Professor and then became an Associate Professor in 2013. He serves as the Director of UAB Kinome Core, investigating kinase driven signal transduction cascades in a spectrum of biological systems, particularly related to cancer. Dr. Willey has earned a National Cancer Institute grant for his project "3D-Microtumor GBM Xenoline Proband Modeling of Kinome-Directed Therapy", which focuses on Glioblastoma multiforme (GBM) and its potential treatment options, as well as an American Cancer Society grant to study the mechanism by which the protein MARCKS impacts GBM growth and treatment response.

**Q: As a physician and a cancer researcher, what do you think about translational research in UAB?**

**A:** I feel that UAB is a very collegial institution, which fosters collaborative projects between both clinical and basic science investigators. As such, translational research is an important strength of the University. In my clinical practice as a radiation oncologist, I see patients with cancers that I am actively investigating. With patients harboring very challenging tumors, such as GBM, where we have limited options for therapy, I feel that the patient, basic science investigators and clinicians are even more motivated to pursue translational research. Fortunately, we do have several NIH funded Specialized Programs of Research Excellence (SPOR grants) and very unique model systems such as patient-derived xenografts that are helping us gain translational research knowledge that will hopefully aid patients in the clinic one day.

**Q: How do clinicians and researchers in UAB collaborate to advance cancer research?**

*"Graduate students are really the foundation of scientific research at UAB, and a very integral part of the success of our faculty."*

*"My main advice for graduate students, almost sounds cliché, but they need to work hard and seek out good mentorship, not just in terms of research technique, but also career guidance."*

**A:** Almost everyone has been touched by cancer...in their immediate family or close friends. This holds true for clinicians and researchers. As clinical and basic scientists, we realize that science cannot be performed in "a vacuum" or in "isolation." Instead, we know that it is better to work as a team to capitalize on the various expertise that each investigator can bring to the research project. Collaboration enables the exciting science to commence. So, busy clinicians can make observations based on their experience that then triggers a testable hypothesis. These clinicians, in turn, can seek out an investigator with a lab who has expertise in the topic of interest. A collaboration is then forged with a positive interplay between clinical observations and basic science experimentation. By the same token, the hypotheses can also start in the wet lab and then be translated to the clinic when a basic scientist works directly with the clinician. These partnerships are what really drive and advance cancer research.

**Q: Do you have any advice for graduate students in general, and MD/PhD students in particular, who will follow your footsteps in cancer research?**

**A:** My main advice for graduate students, almost sounds cliché, but they need to work hard and seek out good mentorship, not just in terms of research technique, but also career guidance. Even seasoned investigators will often have more senior level mentors that they can confide in and learn from. Also, when you find a lull in your experiments (e.g., while waiting for reagents to be shipped, etc.), it is well worth it to read the literature and gather notes, figures, etc. for the writing you will do as a graduate student. Your job as a graduate student is to learn "how to do research," not necessarily find out what you will be doing the rest of your life. Part of the "how" involves communication of your results and this is often a challenge for students. Being able to organize your thoughts and experiments into a coherent story is a critical skill for students.

**Dr. Anita Hjelmeland** is an Assistant Professor in the Department of Cell, Developmental and Integrative Biology at the University of Alabama at Birmingham. She has appointments in the Comprehensive Cancer Center, the Comprehensive Neuroscience Center, the Civitan International Research Center, the Stem Cell Institute, the Center for Glial Biology in Medicine, and the Center for Free Radical Biology. Dr. Hjelmeland received her Ph.D. in Pharmacology and Cancer Biology from Duke University. After a post-doctoral fellowship in brain tumor research at Duke University, she became a Project Scientist at the Cleveland Clinic where she focused on identifying new molecular targets in glioma stem cells and understanding their effects on tumor growth. In 2013, Dr. Hjelmeland transitioned to UAB where her laboratory

continues to work towards developing methods to better control and kill brain tumors.

**Q: Why did you decide to choose UAB? How do you feel about the resources as well as the collaborative research environment here?**

**A:** Because I realize that high quality research cannot be completed in isolation, I wanted to establish my research program at a university with highly collaborative investigators performing both basic and clinical research. This drew me to UAB, as it has an excellent group of brain tumor researchers with whom I have had the privilege to work. The collaborative founding principle of the university has manifested with many core facilities, including those specifically dedicated to neuroscience research, which my lab has found incredibly beneficial.

**Q: What is your plan for the future?**

**A:** I would like my research and teaching program at UAB to continue to grow and aggressively pursue new understanding of and treatments for brain tumors. I am excited about future teaching opportunities and will be

the course director for a Brain Tumor Biology class in the fall. It is open for graduate students and junior and senior undergraduates, so I would encourage those interested in brain cancers to register.

**Q: Do you have any advice for students who are considering a career in cancer research?**

**A:** For any student making long-term career decisions, my advice would be to talk to people who currently hold that job. Ask them about the strengths and challenges of their position and what their typical day is like. For cancer research specifically, I would encourage undergraduate students to work in a laboratory as much as possible and talk to their professors about completing summer internships and an honors thesis. Graduate students should identify researchers with whom they would like to complete a post-doctoral fellowship in cancer biology well before they expect to graduate. Seek opportunities to talk with that investigator during national or international meetings or ask that they be invited for departmental seminars. Most importantly, regardless of your decision or how it may change in the future, ensure you are following your passion! ●

*"Most importantly, regardless of your decision or how it may change in the future, ensure you are following your passion!"*

## Research in motion

# PDX Models at UAB

by ABHISHEK GANGRADE

**C**HALLENGES in finding appropriate representations of cancers have remained as impediments to progress in research. While in vivo models of mice implanted with established cell lines have been employed for a long time, **patient-derived xenograft (PDX)** models have recently emerged as sustainable options. Among the types of models available, PDXs established directly from human tumors most accurately reflect the genetic and molecular characteristics of the human tumors from which they were derived. These models involve the implantations of human tumors, often heterotopically, in mice in order to recapitulate heterogeneity often lost in in vitro settings. As a result, they represent tools for developing anticancer treatments and personalized medicine.

Labs at UAB currently utilize PDX models to broaden knowledge of certain cancers. **Dr. Donald**

**Buchsbaum's** lab has incorporated models with ovarian tumor specimens to evaluate efficacies of novel agents. **Dr. Karina Yoon's** lab has established a series of PDX models of pancreatic ductal adenocarcinoma (PDAC), and confirmed the fidelity of specific genetic, molecular and histologic characteristics between tumors of origin and early passage tumors propagated in mice. In collaboration with **Children's of Alabama**, her lab has also incorporated study of pediatric solid tumors for assessing potential therapies. **Dr. Yancey Gillespie** uses glioblastoma PDX models, some of which have undergone kinomics and transcriptomics screenings, to assess predictive markers for tyrosine kinase sensitivities.

The preclinical success of PDX models has propelled development of avatars, personalized models of patient tumors that enable therapeutic assessment and clinical

application. **Dr. Christopher Willey** was awarded a grant from the American Cancer Society to study the role of MARCKS as a regulator in glioblastoma growth and resistance to treatment following initial findings that included avatars. Obstacles persist in implanting certain tumors, such as pancreatic and ovarian, in their organs of origin as they have exhibited resistance to growth. However, PDX models certainly wield promising implications for cancer research. ●



*Behind the scene*

## Tuesday with Patricia

*Exclusive Interview  
by JOSH FRIED*



Josh Fried (JF): *What is your official title at UAB?*

Patricia Matthews (PM): Program Manager 1.

JF: *Is that what PM1 stands for?*

PM: No, program manager 1 indicates that I have a degree, and I am above program manager 2.

JF: *How long have you been working at UAB?*

PM: Started in 1994. I took time off in 98-99 to finish my degree. I officially have twenty years.

JF: *What brought you to UAB?*

PM: I lost my previous job because the company was downsizing. I got an offer from UAB and accepted the job.

JF: *What is a typical day for Patricia Mathews like?*

PM: Arrive at 6. I check emails, work with course work, respond to student issues, respond to office issues, and a variety of other stuff.

JF: *What is your favorite part of your job?*

PM: Working with students. I enjoy trying to help students.

JF: *What is your least favorite?*

PM: Staff meetings. Any meeting. I don't like meetings.

JF: *How much better is the Cancer Bio theme than neuro?*

PM: (laughs) I can't say that anyone is better. They are different. The students are different.

JF: *When will you abandon neuro and devote yourself to Cancer Bio?*

PM: I hope never. I enjoy having the additional work. I wouldn't mind picking up a third theme.

JF: *Who is your favorite Cancer Bio student and why is it Josh Fried?*

PM: (laughs) He has a very dry sense of humor. I like that.

JF: *What can Cancer Bio students do to make your job easier?*

PM: Communicate with me more.

JF: *Where did you grow up?*

PM: Birmingham Alabama.

JF: *What did you want to be when you grew up when you were a child?*

PM: (a small laugh) Hawaiian. I like their brown hair and brown eyes.

JF: *Where did you go to college?*

PM: UAB. Go Blazers

JF: *What would be your ideal vacation?*

PM: A trip to Scotland. Scotland is very appealing to me. I enjoyed learning about Scottish history.

JF: *What do you like to do in your spare time?*

PM: Rock climb, rapel, caving, painting, fixing things, destroying things.

JF: *What is your favorite book? Movie? Music? Broadway musical? Disney Movie?*

PM: The Bible, Silverado, Jazz, Peter Pan, 101 Dalmatians.

JF: *Would you rather read the book or watch the movie?*

PM: (with no hesitation) The book.

JF: *Would you rather fight 100 duck sized horses or one horse sized duck?*

PM: One horse sized duck.

JF: *Do you have any advice for incoming students?*

PM: Realize this is a career. Make it want you want it to be. Understand that I am here to help. Know yourself.

JF: *Describe your favorite sandwich.*

PM: This is a hard question. I am not a fan of bread.

JF: (screaming internally) *Wraps and burritos are okay too.*

PM: A flour tortilla, grilled chicken strips, grilled onions, and feta cheese. Dip in salsa.

JF: *Anything you would like to say that I haven't covered?*

PM: You guys are young, you are gunna do great things. Don't stress so much.

JF: *Thank you for your time.* •

# Rounds of excitement

by JOSH FRIED

**T**HE 2014-2015 recruiting season has recently drawn to a close. This year the admissions committee consisted of six total members: four faculty and two student representatives. The four faculty members were: the two theme directors, **Dr. Lalita Samant** and **Dr. Theresa Strong**, along with **Dr. Douglas Hurst** and **Dr. Yang Yang**. The two student representatives were **Josh Fried** and **Kayla Goliwas**.

This year Cancer Biology had 87 total applications with 39 from domestic applicants and the remaining 48 from international applicants. The admission committee reviews all online applications individually. Periodically throughout the winter, the committee convenes to converse about the applications. In these meetings the committee discusses what aspects of the applications that they do or do not like. Grades, research experiences, and letters of recommendation are the most important factors that are compared when deciding which students are invited for an interview and which are denied.

We invited 14 students to UAB for onsite interviews. The onsite interviews occurred over the course of three weekends (Jan 22-24, Feb 19-21, and March 5-7). The interview weekend lasts from Thursday until Saturday with a mixture of serious and casual events for the recruits to partake in. This year we had the recruits of all themes arrive on the same weekends. On Thursday evening we took the recruits to **Vulcan Park** (so pretty at night!). The recruits were treated to a catered meal by Dreamland, and a rousing seminar presentation from **Dr. Sontheimer** on translational research on glioblastoma. This dinner also gave the recruits the opportunity to speak with faculty and current students regarding being a graduate student and UAB. On Friday the recruits run the gauntlet of one on one interviews with multiple faculty



members, and most intimidating of all, an interview with a student representative. After the interviews conclude the recruits were taken to a mixer at the **Edge of Chaos** (Free Beer Friday). Like the dinner the previous night this gives recruits a chance to talk to faculty, students, and other recruits in a casual setting. After the mixer the recruits were taken out to dinner by current Cancer Biology Students. The students and recruits play fun dinner games such as "Sweet or Savory." On Saturday the recruits were taken on a guided tour of Birmingham. During this tour they got to see possible living locations, places for recreation, and other attractions in Birmingham.

In addition to the 14 on site interviews we conducted six total Skype interviews. Skype interviews are reserved for recruits that are unable to attend an onsite interview, usually due to living outside the country or poor traveling conditions in the United States. For Skype interviews, the applicants speak with several members of the admissions committee simultaneously. The interviews last around 30 minutes each. Committee members take turns

asking pertinent questions to applicants. This may seem intimidating for the applicant, but the worst part is usually technical difficulties.

After the interviews the committee convenes to discuss their thoughts on which applicants to offer. Each committee member has specific qualities that they are looking for in a potential student. However, all members of the committee are looking for applicants that are excited about research, knowledgeable about their previous research experience(s), and interested in furthering their scientific career at UAB. It also never hurts to be a pleasant person to be around.

In total this year we offered ten students and seven accepted. Our incoming first year students are: **Soniya Bastola**, **Mateus Mota**, **Shelly Nason**, **Rachael Orlandella**, **Alyncia Robinson**, **Tesh Sherpa**, and **Dingguo Zhang**. We are very excited to have these seven students join our theme. Let's be sure to give them a warm welcome when they arrive on campus in the fall. ●



## Event highlights



American Society of  
Preventive Oncology

by ANN HANNA



THE American Society of Preventive Oncology (ASPO) is an organization that fosters a multidisciplinary approach to promote cancer prevention and control. The UAB Cancer Center's very own **Dr. Wendy Demark-Wahnefried** currently serves as president of the ASPO. UAB had the privilege of being home to the organization's **39<sup>th</sup> annual conference** held on March 14<sup>th</sup> -17<sup>th</sup>. The event comprised several lectures discussing

important epidemiological topics as well as a poster session highlighting the most recent discoveries in cancer prevention and controls. There was also an award ceremony to reward presenters with research of high impact. Overall, the event was an educational opportunity for professors, students, and various organizations to share successful strategies and discoveries in cancer control. ●



METAVIVOR  
From Sea to Sea

by ANN HANNA



UAB held a very special event by hosting representatives from **METAvivor**, an advocacy organization for stage 4 metastatic breast cancer that also funds metastasis-specific cancer research. Faculty members, students, and breast cancer patients attended the event. The Cancer Center Director, **Dr. Ed Partridge** inaugurated the event with a welcome address that emphasized UAB's excellence in cancer research, particularly breast cancer and designation of both cancer research and clinical prevention as equal priorities. Several of our Cancer Biology Theme students had the opportunity to give presentations sharing their work at the event including **Monica Lewis** from Dr. Doug Hurst's lab (Sin3 complex and its role in metastasis), **Kayla Goliwas** from Dr. Andra Frost's lab (developing an in-vitro 3D model for breast cancer), and **Ann Hanna** from Dr. Lalita Shevde-Samant's lab (tumor crosstalk between developmental signaling and innate immunity). Additionally, **Dr. Andres Forero-Torres** spoke about the multiple clinical trials currently taking

place in UAB for promising novel cancer therapeutics. METAvivor's Director of Advocacy **CJ "Dian" Corneliussen-James** shared her experience as a stage IV breast cancer survivor and her continued efforts to inform other survivors about the support that the organization provides. She also educated the audience about grants the organization offers for cancer research. Mrs. Corneliussen-James ultimately urged care providers and researchers to be sensitive when addressing cancer as to not make patients lose hope or feel guilty about their disease. Representatives from the American Cancer Society also participated in the event by giving an overview of all the available resources that they provide for cancer patients such as the Hope Lodge and various cosmetic options for women suffering from chemotherapy treatment side effects. Overall, the event was very well received as an opportunity for researchers to share their knowledge and the patients to share their humbling experiences that remind us all why we chose to pursue cancer research as a career. ●



**PANCREATIC CANCER ACTION NETWORK®**  
**PURPLESTRIDE**  
**BIRMINGHAM 2015**  
 PRESENTED BY UAB MEDICINE

by ABHISHEK GANGRADE



CLOUDS stretched over the field and a light drizzle was present. However, weather does not preclude hope. **PurpleStride Birmingham**, organized by the **Pancreatic Cancer Action Network**, was held on April 18th at Veterans Park in Hoover. The 5K timed run and walk to raise awareness and funds for pancreatic cancer. The event raised over \$115,000 for patients, survivors and caregivers, and research, and more than 1,500 participants attended the race.

With a five-year survival rate of just 7 percent, pancreatic cancer is projected to become the second most common cause of cancer-related death by 2020. According to the National Comprehensive Cancer Network's guidelines, the preferred option for treatment involves clinical trials, signifying the importance of research. The **UAB/UMN SPORE**, led by **Drs. Donald Buchsbaum and Selwyn Vickers**, is dedicated to reducing morbidity and mortality associated with pancreatic cancer. UAB Medicine was the presenting sponsor.

The **Pancreatic Cancer Action Network** was established in 1999 by relatives of three loved people who lost their fights to pancreatic cancer. The organization is motivated toward doubling pancreatic cancer survival by 2020. This year, it is set to invest \$6.7 million in research, rising 30 percent from last year's funding. Since 2003, 122 research grants have been awarded, amounting to nearly \$28 million in funding to excellent scientists throughout the country. Strong government efforts and advocacy have helped raise \$105 million in research funding from the National Cancer Institute. In addition to fundraising, the organization is committed to well-being as Patient and Liaison Services (PALS) has united many patients and their families with trained associates to educate individuals about the disease, treatment options, diet, etc.

Supporters cheered on the participants as they passed the finish line. While the line may be an end of one race, it is hopefully the start of another. ●



**Crawl Against Cancer**

by HAWLEY PRUITT



STUDENTS from all GBS themes got together to support the **American Cancer Society** during the 3rd annual **Crawl Against Cancer** December 13th. Originally organized by **Kurt Zimmerman**, an alumni of the Molecular and Cellular Pathology Graduate Program, the pubcrawl has raised a total of over \$7000 for the American Cancer Society. This year alone over \$2000 was raised and donated specifically to the

**Hope Lodge**. The Hope Lodge offers cancer patients and their families a free place to stay while they are undergoing treatment. This allows patients to travel farther distances to receive better care and not worry about lodging costs in addition. Establishments in the 5 Points district of Birmingham that participated and generously donated this year were Zydeco, Daves Pub, Saloon, The Upside-down Plaza, J. Clyde, and Black Market Bar. ●



## Take a break

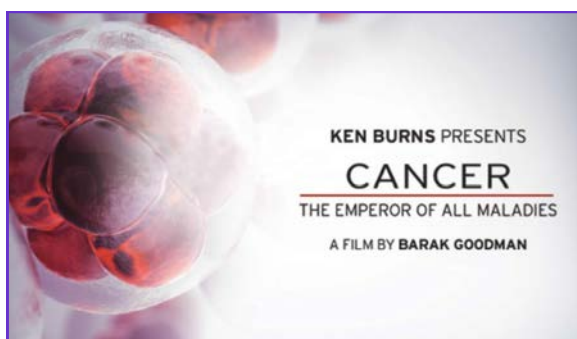


The **GBSO (Graduate Biomedical Student Outreach)**, serves to meet the needs of the students in GBS themes, associated programs and departments through programming and events that encourage interaction between students, faculty and the greater scientific community.

Cancer Biology Theme representatives are **Monicka Weilgos** and **Anh Tran**. •

## To Watch: Emperor of All Maladies

by ANN HANNA



**P**BS recently aired a documentary based on Siddhartha Mukherjee's Pulitzer award winning book of the same name. The 3-day event gave a complete overview of and history of cancer from perspectives of researchers, doctors, and patients, taking the viewers on a journey through the advancements in treatments and scientific breakthroughs that rejuvenated patient's fading hopes. Ultimately the

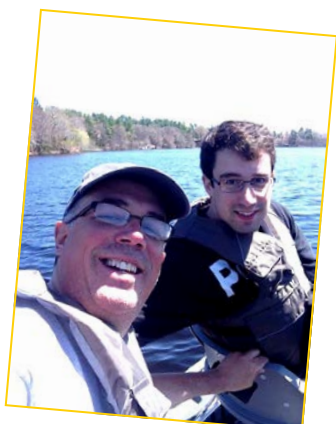
documentary gave a well rounded, incredibly easy to understand summary of all the reasons why cancers are such a serious problem due to its ever-changing nature and the continuous, diligent efforts of researchers and healthcare providers.

You can watch full episodes here: <http://video.pbs.org/program/story-cancer-emperor-all-maladies/> •



# Where are they now?

by HAWLEY PRUITT



## Kyle Feeley: post-doc at Vanderbilt

Kyle was a graduate of Dr. Scott Ballinger's lab. His project focused on mitochondrial influence in the metastatic potential of breast cancer. In May he started at post-doctoral fellowship at Vanderbilt University with Dr. Christine Eischen. His project involves studying Mdm2 and Mdmx, two oncogenes that negatively regulate the tumor suppressor p53. Independent of p53, Mdm2 and Mdmx also impair double stranded DNA break repair and can cause genomic instability. The focus of his work will be on further characterizing the p53-independent effects of Mdm2 and Mdmx in vitro and in vivo, as well as investigating potential related therapeutic avenues.



## Mark Stewart: research associate at NAS

Mark graduated from Dr. Ralph Sanderon's lab. He studied the role of syndecan-1 on multiple myeloma progression, and discovered its nuclear localization. Now Mark is a research associate at the National Academy of Sciences, an organization that advises the Nation on matters related to science, engineering, and health. His current study is the state of the science in ovarian cancer research, a congressionally mandated study to analyze the current gaps in knowledge, the challenges to addressing these gaps, and how best to translate and disseminate new findings to relevant key stakeholders to better facilitate progress in reducing the incidence of and the

morbidity and mortality from ovarian cancer. He helps develop information for the committee by reading, analyzing, and evaluating data and literature. Most importantly, he helps draft the reports that eventually undergo a rigorous review process prior to their dissemination to Congress and the public.

## Zach Dobbins: to the clinic!

Zach graduated from Dr. Chip Landen's lab last year. He created a PDX model of ovarian cancer, and characterized its similarity to human counterparts. In addition, he studied mechanisms of chemotherapy resistance by ovarian cancer stem cells. Zach as an MSTP student has gone back to the clinic for clerkships and will be applying to residency programs this fall.

## Joe Feduska: post-doc at UAB

Joe graduated from Dr. Karina Yoon's lab in June last year. His project focused on looking at the roles of the cell adhesion molecule ICAM-2 on the progression of neuroblastoma. He is now a post-doctoral fellow in Dr. Selvarangan Ponnazhagan's lab working on two different projects. The first is determining the role immature myeloid cells (IMCs) play in contributing to bone fracture repair. The second project involves looking at genetically modified mesenchymal stem cells (MSC) for use in treating osteolytic malignancies. ●



## Congratulations to the New PhD Candidates



**Alice Weaver**  
Advisor:  
Eddy Yang, MD



**Will Jackson**  
Advisor:  
Lalita Shevde-Samant, PhD



**Kayla Goliwas**  
Advisor:  
Andra Frost, MD



**Hawley Pruitt**  
Advisor:  
Rajeev Samant, PhD



**Selma Cuya**  
Advisor:  
Robert van Waardenburg, PhD

# Eat your heart out...



**Monica Lewis** got 1st place at Graduate Student Research Day for her talk titled "Defining roles of SIN3 isoforms in breast cancer metastasis."



**Zachary Tibbs** is a new member of the American Society for Pharmacology and Experimental Therapeutics.

And congratulations to this years recipients of the Bertram Marx Travel Award to travel to AACR.

Ashiya Buckels ▪ Ha-Ram Cha ▪ Kayla Goliwas ▪ Monica Lewis  
Matt McConnell ▪ Aubrey Miller ▪ Jennifer Stanley ▪ Alice Weaver  
Monicka Weilgos ▪ Zachary Tibbs

## Publications:

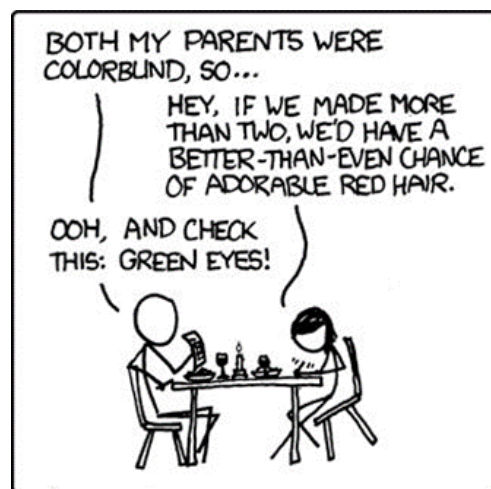
1. **Tibbs ZE**, Falany CN. *Pharmacology Research & Perspectives*, 2015
2. **Stanley J**, Klepczyk L, Keene K, Wei S, Li Y, Forero A, Grizzle W, **Wielgos M**, Brazelton J, LoBuglio AF, Yang ES. *Breast Cancer Res Treat*. 2015
3. **Tibbs ZE**, **Rohn-Glowacki KJ**, Crittenden F, Guidry AL, Falany CN. *Drug Metab Pharmacokinet*. 2015
4. Comeaux EQ, **Cuya SM**, Kojima K, Jafari N, Wanzeck KC, Mobley JA, Bjornsti MA, van Waardenburg RC. *J Biol Chem*. 2015
5. Rohrbach TD, Jarboe JS, Anderson JC, Trummell HQ, Hicks PH, **Weaver AN**, Yang ES, Oster RA, Deshane JS, Steele C, Siegal GP, Bonner JA, Willey CD. *Int J Oncol*. 2015
6. **Feeley KP**, Westbrook DG, **Bray AW**, Ballinger SW. *Redox Biol*. 2014
7. Cho SA, **Rohn-Glowacki KJ**, Jarrar YB, Yi M, Kim WY, Shin JG, Lee SJ. *Arch Biochem Biophys*. 2015
8. **Rohn-Glowacki KJ**, Falany CN. *Horm Mol Biol Clin Investig*. 2014
9. Hao L, Chen W, **McConnell M**, Zhu Z, Li S, Reddy M, Eleazer PD, Wang M, Li YP. *Infect Immun*. 2015

## #justphdthings

by ANN HANNA



My multi-channel pipettor saves me a lot of time. Now I can make twelve mistakes at the same time.



TRIVIA: 30% OF BIOLOGIST FIRST DATES DISINTEGRATE INTO MAKING PUNNETT SQUARES.

## Fun Fact :-)

Scientists from NCI and University of California at Los Angeles have recently published a study in the Journal of Clinical Oncology associating male pattern baldness to an aggressive manifestation of prostate cancer. You can read the article here <http://jco.ascopubs.org/content/early/2014/09/15/JCO.2014.55.4279> ●