



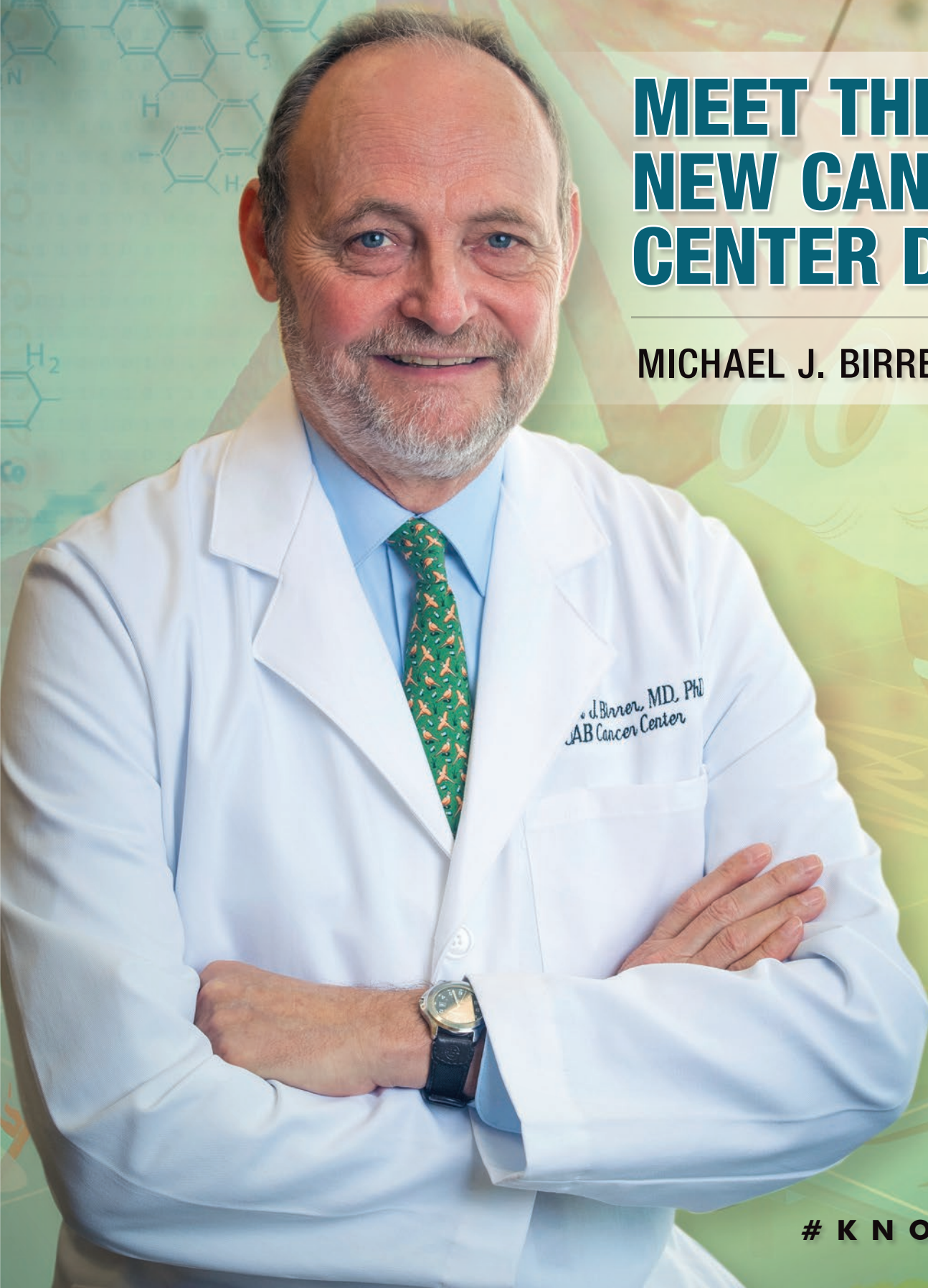
COMPREHENSIVE CANCER CENTER

2018 • VOLUME XXXIII • NUMBER 3

AN NCI-DESIGNATED COMPREHENSIVE
CANCER CENTER SINCE 1971

MEET THE NEW CANCER CENTER DIRECTOR

MICHAEL J. BIRRER, M.D., PH.D.

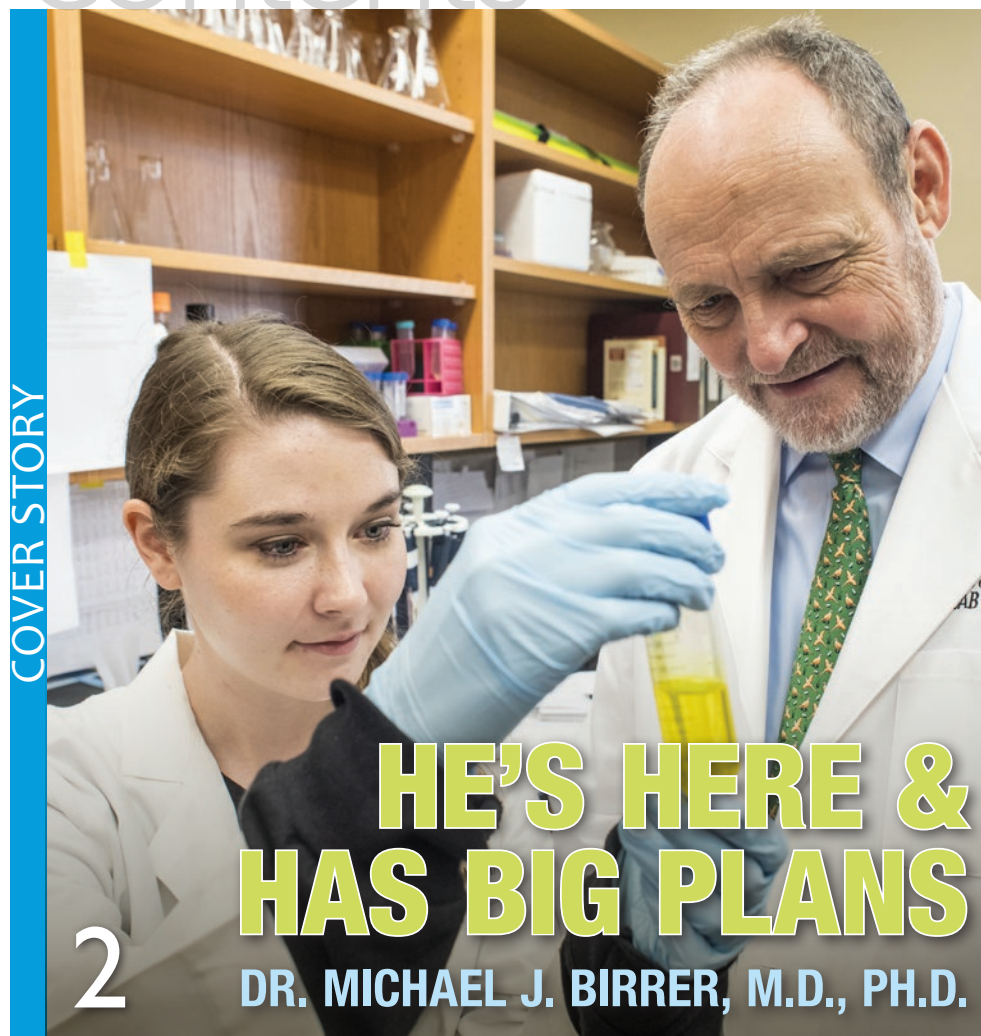


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GIVING TO THE CENTER

There are a variety of ways to give to the UAB Comprehensive Cancer Center. All donations are tax-deductible as allowed by law and may be designated for the cancer or research area of your choice. Every dollar stays here in Birmingham and is directly applied to cancer research and treatment.

Donations may be made by visiting the Cancer Center's website, uab.edu/cancer, or by calling the Office of Development and Community Relations at (205) 934-1603.

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news from the director

In this issue of the *UAB Comprehensive Cancer Center Magazine*, I am excited to share my story along with my vision for moving the Cancer Center forward.

How we got here is just as important as where we are going. The legacy of this Cancer Center is very impressive. It started in 1972 with the signing of the National Cancer Act by then-President Richard Nixon. In 1973, eight centers were named as 'comprehensive' cancer centers — UAB was one of them. We were there at the **beginning!**

Over the years, there have been many fabulous accomplishments, including in 1987 when the UAB Cancer Center purchased one of the first DNA sequencers in the nation and carried out the first trial ever of a genetically engineered monoclonal antibody. In 1992, a cancer control effort was funded in the Black Belt which ultimately led to the creation of the Deep South Network. This has created a UAB Cancer Center legacy of reaching out "to serve the underserved" and address cancer health disparities unmatched throughout the United States. It's not hard to imagine why the Cancer Center has been continuously funded for 45 years.

This is the Cancer Center that I took over as director on August 1. You can understand my excitement taking the reins of such a prestigious Cancer Center — and I believe the best is yet to come. I have never known a more exciting time in oncology with therapeutic developments moving at a rapid pace. Treatments are specifically targeted with toxicities that are extremely limited. We now have the capability of curing previously fatal diseases or transforming them into clinically manageable chronic ones.

The UAB Cancer Center is well positioned to lead oncology care and research in the decade. Our physicians are known for providing high-quality, cutting-edge treatment options for their patients. Our scientists work diligently to uncover groundbreaking discoveries that move quickly and safely from their labs to our patient's bedside. It is not an exaggeration to say every single person who works at the UAB Comprehensive Cancer Center is working every day toward making an impact in the fight against cancer.



This issue of the magazine highlights the past, present and future of the UAB Cancer Center. It describes the historic perspective, ongoing research efforts, new clinical interventions and improvements in compassionate care. Most prominently, it includes the ongoing achievements of our members and staff. For instance, Dr. Mona Fouad, senior advisor in the Cancer Center, was elected to the National Academy of Medicine — one of the highest honors for a physician in the United States — for her tireless efforts toward eliminating health disparities. We also feature staff member Pam Alverson, whose tenacity, work ethic and compassion, led her to be chosen as UAB's Employee of the Year, the highest recognition for staff members from the university.

It is important to note that the UAB Comprehensive Cancer Center has been there from the beginning of the "war on cancer." And I want it to be there at the end when cancer is no longer a health problem! Thank you for all your support as we start a new chapter together.

Michael J. Birrer, M.D., Ph.D.
*Director and Evalina B. Spencer
Chair in Oncology*

For a free subscription to *UAB Comprehensive Cancer Center*, please call (205) 934-0321 or send email with your name and address to kendracc@uab.edu.



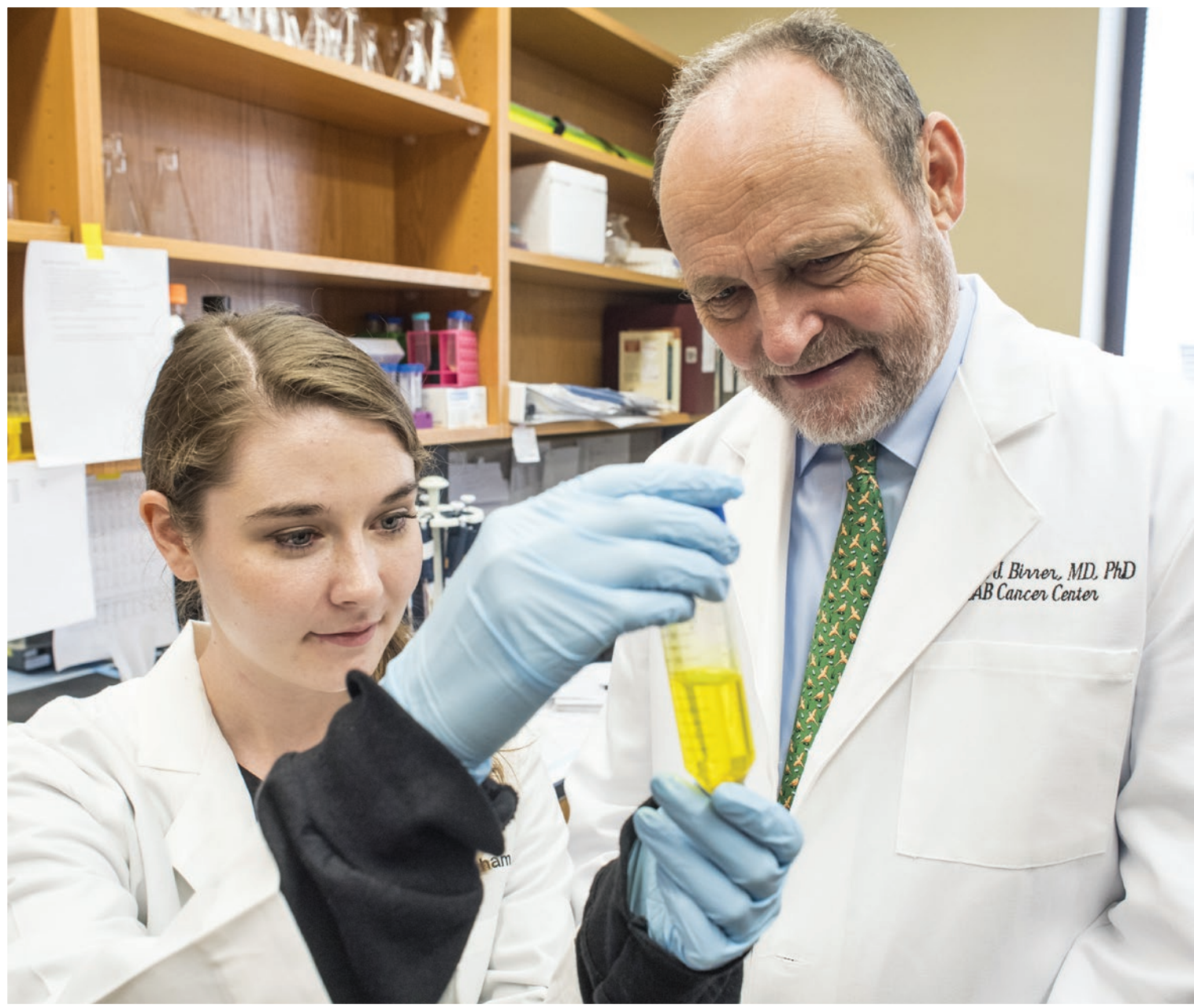
A portrait of Dr. Michael J. Birrer, a middle-aged man with a grey beard and mustache, smiling. He is wearing a dark blue suit jacket, a light blue dress shirt, and a green tie with a small orange pattern. The background is a blurred indoor setting with vertical light streaks.

HE'S HERE & HAS BIG PLANS

By
BEENA THANNICKAL

DR. MICHAEL J. BIRRER, M.D., PH.D.

In August 2017, Dr. Michael J. Birrer took over the reins as director of the UAB Comprehensive Cancer Center. He comes to UAB from Harvard Medical School where he was a Professor of Medicine and the director of Gynecologic Medical Oncology and the Gynecological Oncology Research Program at Massachusetts General Hospital.



Getting Started

Other than the warmer weather that Birmingham offers, Dr. Birrer was impressed with UAB's cancer program in that it is one of the original eight comprehensive cancer centers in the United States, and has maintained continuous funding from the National Cancer Institute for about 45 years. He was also amazed with the Cancer Center's commitment to health disparities. "The UAB Comprehensive Cancer Center is perhaps one of the few cancer centers in the nation, if not the only one, that engages underserved populations effectively."

Now that he is here, Dr. Birrer is determined to take the UAB Comprehensive Cancer Center to the next level. "When you are starting with one of the best in the nation with a rich history, it is easy to get excited about the spectacular prospects for the future."

Dr. Birrer knew at an early age that he wanted to be a doctor. After watching his older brother go through medical school, Dr. Birrer decided as a freshman in college at Rensselaer Polytechnic Institute, that he was committed to it too. Upon getting his bachelor's degree in biology, he headed to Albert Einstein College of Medicine in New York City where he says he made the smartest decision in his entire life. "I went into the M.D./ Ph.D. program, a medical scientist training program, where I came out of medical school without any debt while doing what I loved, which was research." While there, his primary area of study was microbiology and immunology.

He did his internship and residency in medicine at Massachusetts General Hospital in Boston. He wanted to

focus on cancer because “I knew I wanted to work with patients who really needed help.” Upon completing his residency, he entered a medical oncology fellowship at the National Cancer Institute in Bethesda, Maryland working on the molecular genetics of lung cancer.

Q: How did you get into gynecologic oncology from lung cancer?

A: It’s a funny story. I was in lung cancer research when I first became a faculty member at the NCI, and the way most departments work is that when a new job comes up and nobody wants it, it always falls to the youngest faculty member. The GynOnc tumor board has to have a medical oncologist on it, and someone had to fill this position. I was the youngest faculty member so they sent me over there. I had trained a little bit on ovarian cancer, but other than that, I had not really seen other gynecologic cancers at all. But I was fascinated by the tumor spectrum and the types of clinical presentations that were very broad. It is a very rich biologic and clinical field.

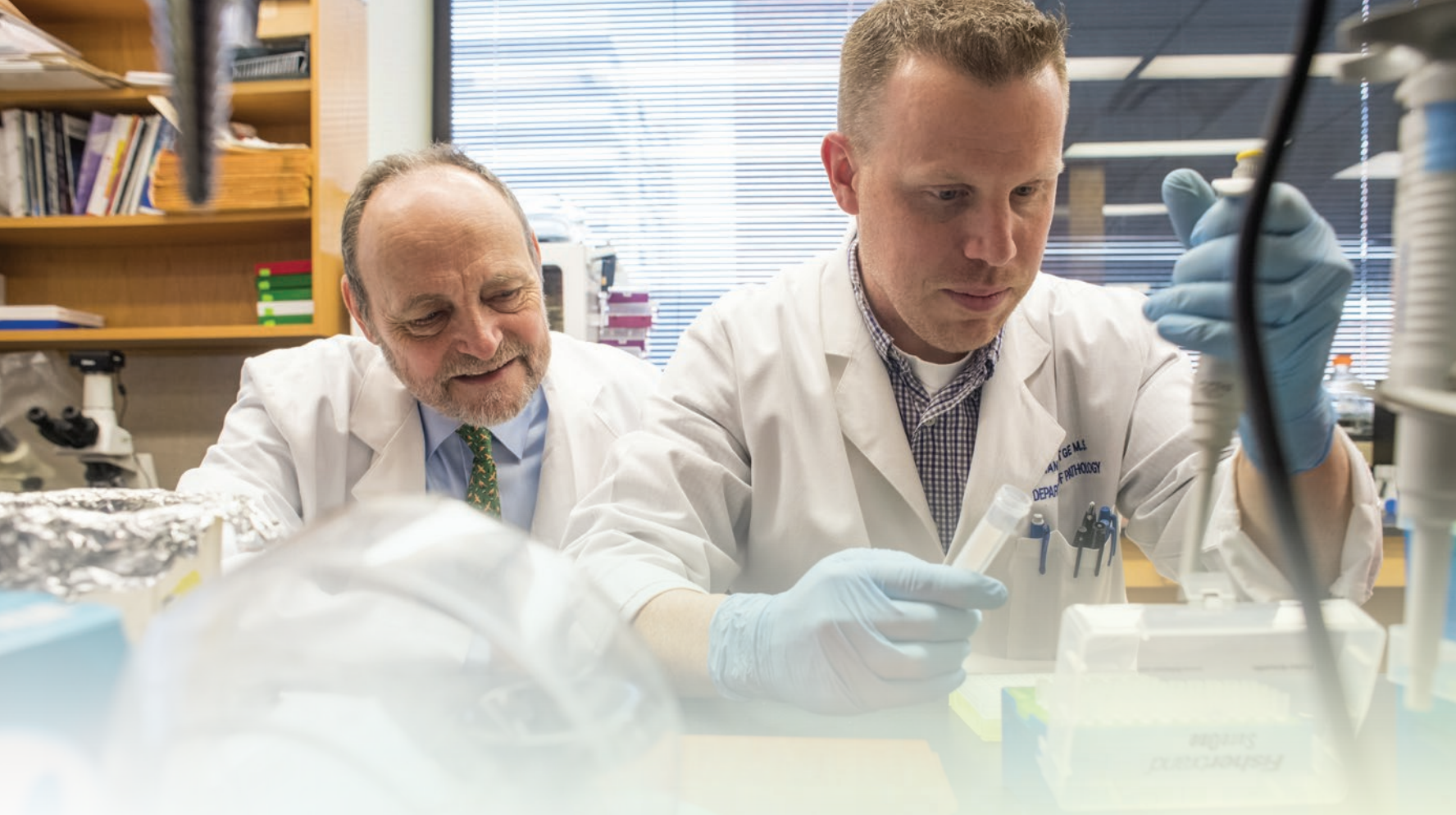
Expert in the Field

Outside of his parents, who were his greatest personal influence, Bob Young and Bob Ozols at NCI — both fathers of platinum use in ovarian cancer — made a strong and lasting professional impression on him.

After 20 years at NCI, during which he held numerous leadership positions, Dr. Birrer headed back to Boston to take prestigious positions at MGH, Harvard’s teaching hospital, integrating clinical practice with innovative research.

His major research interests include the molecular origins of gynecologic cancers, as well as the identification and characterization of aberrations in oncogenes and tumor suppressor genes in these cancers. His lab has a long history of determining the genomic characteristics of ovarian, cervical and endometrial cancers and using the data to form the basis for early detection assays, prevention strategies, and novel therapies.





Q: How hard is it to make a transition from gynecologic oncology to all cancers?

A: It is a challenge. Twenty years ago, it would have been a lot easier because, unfortunately, we had less knowledge about all these cancers and therapeutic interventions. Now these fields are getting more complex, and the stratification of patients with different types of cancer is greater. But it is a good challenge, and I am excited about it. I am the kind of person who doesn't have a problem asking questions and asking for help. The clinicians and researchers here at UAB are really outstanding so that makes my job easier.

I do believe that through a better understanding of the molecular underpinnings of particular cancers, we will be able to better diagnose and treat these diseases.

Bringing His Leadership to the South

Dr. Birrer is recognized nationally and internationally as an expert in gynecologic oncology. He has published more than 320 peer-reviewed manuscripts and 27 book chapters and review articles. He has served in numerous leadership positions within the greater gynecologic oncology community, such as chair of the Department of Defense Ovarian Cancer Research Program, chair of the Committee for Experimental Medicine of the Gynecologic Oncology Group, and chair of the Translational Science Working Group of the

Gynecological Cancer Intergroup, among others. In addition, he is a member of many national organizations including the American Society of Clinical Oncologists, American Association of Cancer Research and Society of Gynecologic Oncology.

Q: So what drew you here to UAB?

A: The academic excellence of UAB was very attractive to me. Beyond its outstanding clinical academic history, it is a size where I can get my hands around it, and steer it. It has room to be expanded. When you look at free-standing cancer centers like Memorial Sloan Kettering and MD Anderson, I am not even sure they can actually make changes that help patients in a rapid fashion. I think that can be done here at UAB. It is the perfect size and the perfect academic quality.

My wife and I wanted to go to a sunnier, warmer place, and our children are down here more times than not. We are country people. And I am a big lover of grits.

Q: What do you find different here in the Deep South than in the Northeast?

A: I think it is sort of ironic because if you go to some of the major cancer centers in the Northeast, I think they pride themselves on, for lack of better term, "diversity" in both the staff and inpatient population. It is ironic because one of the problems we had at the Dana Farber Harvard Cancer Center is actually proving to people that we saw underserved

populations. Because frankly, not a lot of underserved populations walk in the door of Mass General. But when I compare that to what is going on at UAB, it is just standard procedure here that 20-30 percent of the population is African American or Latino. To me, this was an added bonus. For someone who has cared for cancer patients for 30 years to then expand that to patients who might spend their entire cancer experience without seeing a clinical trial, it is really rewarding.

Hitting the Ground Running

In the six months Dr. Birrer has been here, he has been getting to know Birmingham and all the entities that make the UAB Cancer Center work. Beyond onboarding and managing a heavy administrative schedule, Dr. Birrer is also seeing patients. In fact, what sealed the deal for him was in addition to being director of the UAB Comprehensive Cancer Center, he will also be heading up the cancer service line, giving him the opportunity to directly impact the decisions affecting patient care.

Q: What does it mean to have this added role to your position as director?

A: I cannot stress enough how important it is. Most cancer center directors are not involved in the service line. Cancer care for the patients in the hospital is completely off their radar, and they have next to no ability to impact that care. This approach is what limits the effectiveness of many cancer centers. We will not suffer from that if we design the cancer service line correctly, and I will be in charge of that.

Q: What are the areas that you want to improve?

A: I think there's two major clinical directions. One is expanding on and perfecting the clinical care of cancer patients at the UAB Cancer Center. We need more people when it comes to expert clinicians for multiple different disease sites, so we will be doing a lot of aggressive hiring in terms of building teams that can effectively treat cancer patients. Breast health clinic does it quite well here so we will model it on that. We want a multidisciplinary team: a surgeon, a clinical oncologist, a radiation oncologist, to see our patients. Patients want an expert in their field. If they have lung cancer, they don't want to be seeing a breast cancer doctor, they want an expert for their specific cancer, and they want the opinions of experts who come at the disease from different angles — surgery, radiation, and medicine.

We will also be expanding our precision oncology effort, conducting genetic tumor profiling for cancer patients to find the best therapeutic option for them. We are doing some of



it but not all of it. I would like to have some of the molecular genotyping done in house. Right now, we have three different platforms, and they all work in different ways. I do think the optimal approach is to have a robust genomic platform sitting right at UAB. I would certainly continue the relationships we have built, but the long-term vision would be that we would supply it ourselves. If we developed this platform at UAB, it could theoretically be used throughout the state of Alabama and become the center for the South.

Q: How about from a research standpoint?

A: I think there will be a serious effort to increase our bench strength. If you look at some of our programs like inflammation, immunology, and immunotherapy, there is great science but it isn't deep in terms of personnel. So we need to hire more people, we can't have programs where if one person leaves the program, it then disappears. So we are going to work on that.

Cancer prevention is a diamond in the rough here. Most cancer prevention programs tend to be "fluffy science" and people don't believe it, but that's not true here.

It is not very common that cancer centers have a very robust drug discovery program, and we do here at UAB. With the help of Southern Research, Alabama Drug Discovery Alliance, and our other partnerships, we want to continue to encourage and support our experimental therapeutics program.

Q: What are our opportunities to educate here?

A: The opportunities to educate here at UAB are extensive. The Cancer Center itself has a number of programs for outreach which are particularly relevant for underserved

populations. Not having access to preventative information such as pap smears, mammograms, etc. has some pretty dire consequences in presentation of late stage cancers. The education portion that is linked to early detection can have a huge impact on the incidence of cancer if it is done properly.

I think the UAB Cancer Center could also take a lead in education through physicians, not just patients. We should be the center of continuing medical education in the South by providing updated data to physicians in the rapidly changing areas of oncology.

Also, education is key to sustainability. If you want to create a dedicated faculty that sustains and expands itself, working with the undergraduate students, graduate students, interns, residents, and fellows is really important. Those are the people who more often than not will want to stay and be a part of UAB. We have an obligation to train the next generation of scientists and physician scientists and engage in the delivery of cancer care. This is critically important to do.

Purposeful Future Plans

In the six months Dr. Birrer has been here, many would say he has set forth some ambitious plans for the UAB Comprehensive Cancer Center. He has been identifying strengths and weakness and turning many ideas into actionable plans.

Q: We understand you are making many changes in the clinical trial enterprise at the Cancer Center?

A: Clinical trials here are already a slam dunk. They do it so well, but need some enhanced organizational efficiency and resources. I would love to see that at least 1,000 patients are put on clinical trials per year and 200-300 are enrolled in the Phase I program. I think we have the patient population but it is an issue of getting space and resources at UAB, centralizing it and smoothing out the clinical trial approval process so that industry can come to us and say, “I really want to open my trial here.” Our patients want the new, hot drugs, and they deserve it. I think that’s as close as I can get to metaphysical certitude that it is going to happen.

I would be very happy if our network sites throughout Alabama and even into some of the other states were capable of opening clinical trials. This would be ideal because then patients wouldn’t have to travel. I would love it if we can export what is available and what is important to those network sites. But there’s a lot of heavy lifting that needs to be done to get that set.

The other part of this is to actually educate the patients about the benefits of clinical trials. There is a lot of cultural resistance to “experimental therapy.” We need to provide the education and reassurance to patients that this is really in

their best interest.

Q: We have heard about some plans for a stand-alone Cancer Center?

A: I think it’s important that patients come here and say there’s my Cancer Center. If you ask them right now I think that they either don’t know where the Cancer Center is or they point to the Wallace Tumor Institute. WTI is a terrific building but to be frank, it is a research building, it is not where they are going to get treated. Right now where patients go to get treated is kind of scattered — that is not a great way to serve patients, and it is not a great way to brand or market a Cancer Center. Branding is very high on my priority list.

A New Vision

Dr. Birrer, who was born in Patterson, New Jersey and grew up in Morristown, has a reputation of being direct. He admits he means what he says and says what he means, or as his wife of 35 years Liz Birrer says “blunt.” Dr. Birrer is also known to thrive on challenges and embrace change. At the Cancer Center he feels he has a vision to help it grow and become more visible.

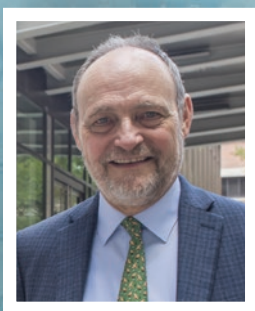
Q: How do you see yourself as leader?

A: I am a pretty straight shooting kind of guy, I think that honesty and integrity are absolutely critical to what you do. If you don’t have that then you’re not going to make it very far. That’s the way I was brought up. I tell my kids that this is a country where you can achieve anything you want with hard work. This is still the type of society where if you work 24/7 at something, you can accomplish what you want. I believe work ethic, honesty, and integrity will lead to success.

Prioritization in life is also important to me: God, family, country, job, and yes in that order. I said that at my internship interview, and I was hesitant about putting the job at the end, but that’s the way philosophically I feel. And my wife is very much like that as well, so it is the way we prioritize.

Q: How do you like your job?

A: I’ve spent 30 years training and caring for patients, primarily in the gynecologic-oncology field. It has been very rewarding. These are women who are in need of improved therapeutic interventions, plus prolongation and quality of life. The possibility of extending that to impacting a much broader group of cancer patients is very exciting. There are multiple ways to do that, but to do it at a well-established, outstanding cancer center like UAB is really a unique opportunity for me. So for me, it is the perfect job.



20 QUESTIONS

Get to know Dr. Michael J. Birrer



- 1. Do you have any siblings?** Older brother and older sister.
- 2. Did you have a nickname growing up?** In college I was given the nick name Heineken.
- 3. How/where did you meet your wife?** Liz is a physical therapist and went to Ithaca College in New York, and the physical therapists at Ithaca spend their last year doing an internship at a medical school. She was doing hers at Albert Einstein College of Medicine in New York where I was. We both ended up on the same floor in the nurse's residence hall, with one bathroom I might add. We have been married 35 years, married in 1982.
- 4. How many kids do you have? (Tell us a little about them)** Three kids, all four years apart; the oldest is my son Michael, and he is a lawyer in Maryland. The middle is my daughter Nicole who is in medical school at Florida International University in Miami. The youngest is my daughter Elizabeth, who just graduated with her masters from Vanderbilt and is teaching high school chemistry right outside of Nashville.
- 5. What do you like to do in your free-time?** We are workaholics here. I mean its 24/7. When we were in Maryland we owned a farm we did a lot of work around the farm. I enjoyed that. I actually took up deer hunting.
- 6. What is your favorite song?** Willie Nelson's Always on my Mind.
- 7. Do you have any pets?** 2 cats. Jackson and Tempie, short for Temperance because we used to have Justice, Liberty and Freedom but they all passed away. Tempie is Jackson's mother.
- 8. What is your favorite vacation that you have been on?** We had a terrific vacation to Australia. We brought all the kids, the whole family went. We went scuba diving and saw the great barrier reef, it was just fantastic.
- 9. What's your biggest fear?** Spiders.
- 10. Do you have a pet peeve?** I am actually pretty flexible...but I'd have to say slow drivers.
- 11. Favorite movie?** Terminator 2. They call me the terminator when it comes to cancer.
- 12. If you could have a super power what would it be?** I would want to be able to read people's minds.
- 13. Favorite cereal?** Can I say...coffee?
- 14. What's your favorite city?** London.
- 15. What's your favorite season?** Fall.
- 16. If you could have dinner with anyone living or dead, who would it be? And why?** My oldest brother Richard. He died way too young, and I would have loved to have known him.
- 17. What is your greatest weakness?** Seeking perfection.
- 18. What is something you can't live without?** My wife.
- 19. What is favorite holiday?** Christmas.
- 20. What is the best thing you got from your parents?** My genes.

THIS OR THAT?

Passenger or **DRIVER**

City or **COUNTRY**

Dog or **CAT**

SNEAKERS or Sandals

CANDY or Popcorn

FOOTBALL or Basketball

PEN or Pencil

Sweet or **SALTY**

Ocean or **MOUNTAINS**

Morning or **EVENING**

TV or Book

EAT IN or Dine out

HORROR or Comedy

Golf or **PUTT PUTT**

Meet Liz Birrer

By KENDRA CARTER

For Elizabeth Birrer, the quality she admires most in her husband Dr. Michael Birrer is his dedication—whether to a person, principle, or project.

“Once he takes on the responsibility or cause, he calmly and logically analyzes it, taking it step by step,” she says. “Things that appear overwhelming, he makes look so obvious and easy.”

But she herself is not one to back away from a challenge either. A physical therapist for more than 30 years, Mrs. Birrer has seen endless opportunities in her career, including working for hospitals, rehabilitation centers and in home health, working with both pediatric and adult patients. She even owned her own outpatient therapy clinic in Maryland for 15 years, exposing her to the challenges of working with insurance companies and navigating the ever-changing health care system.

Her current endeavor is working with children who have diagnoses of autism with severe behavioral issues.

“I love the continual challenges that my field has to offer and the opportunity to work with so many unique individuals,” she says of physical therapy. “You spend a lot of time with each person to find what motivates them, and you really get to build a trusting relationship. I am always amazed at what they can accomplish and their drive.”

“Each individual challenges me to be a better therapist, and I like to think that I impact their life and future in a positive way well.”



The spirit for challenges and possibilities is what attracted the Birrers to Birmingham and the UAB Comprehensive Cancer Center.

“Mike is committed to his vision to help the Cancer Center to thrive and to move forward. Making this move was definitely the next step in his career and a challenge that he felt he had the experience to meet. In addition, we were looking for a change from the Northeast where we both have spent most of our time. When we visited Birmingham, the fit felt right.”

The couple, who met while Dr. Birrer was a medical student at the Albert Einstein College of Medicine and Mrs. Birrer was in her final year of physical therapy school, has been married for 35 years. They have three adult children: Michael, Nicole, and Elizabeth, daughter-in-law Lauren and grandson Michael James III.

Mrs. Birrer says the couple’s favorite activities outside work are spending time with their children, tending to their garden, getting outdoors and exploring new restaurants. She says the move to Birmingham will be a great experience for both she and her husband.

“We are excited about exploring Birmingham, with all it has to offer in the arts, the cuisines, and the culture, but more importantly we really felt a sense of community when we visited,” she says. “We look forward to becoming a part of it.”



Mike Raita

COLORECTAL CANCER SURVIVOR

By
COURTNEY BISHOP

"I literally felt miserable while covering the BCS National Championship, I knew something wasn't right," explains Mike Raita, former sports anchor for ABC 33/40. It was in January 2010, in Pasadena, California that Raita realized he was very sick. He was in Pasadena covering the National Championship football game between the Alabama Crimson Tide and the Texas Longhorns. At this point, Raita hadn't felt well in a few months, he had lost significant weight but had been busy with work so he kept going.

Heartbreaking Diagnosis

When Raita returned from his eight-day trip to Pasadena, he went immediately to the doctor and asked for a colonoscopy. Confused, his doctor asked 51-year-old Raita why he thought he needed a colonoscopy. "Because I believe I have colon cancer," Raita recalls telling his doctor.

The doctor then confirmed that Raita did in fact have stage 4 colorectal cancer. Raita was not shocked at receiving this news, it was something he had suspected for a few months.

As for his parents, they were devastated. “My parents are elderly, and my mother was absolutely heartbroken. She thought I was going to die. I kept reminding her that we have to be positive, we don’t need negativity.”

At the time, Raita was doing what he loves, reporting as a sports anchor for ABC 33/40. He continued going to work and appearing on live television, however, Raita did not tell his viewers nor the majority of his coworkers of his diagnosis. “I did not want them to treat me differently. I mean what are they supposed to say to me? I did not want the kind of attention where people are tip-toeing around me and ignoring the fact that I have cancer. So, yes I was secretive about my diagnosis because I did not want it to define me in the eyes of all these people,” says Raita.

Feeling the Support

Raita’s cancer required chemotherapy and radiation, followed by surgery. “Chemotherapy wasn’t that bad, and radiation was a piece of cake. About eight weeks after my major surgery I had recovered, but the doctors had to wait nine months to reverse the ostomy. There were trying moments, but it all went smoothly.” Raita did experience fatigue as a main symptom from chemotherapy, but he pushed through it and maintained his normal routine, missing only one day of work before his surgery.

“I received a lot of viewer feedback once I underwent surgery, I even got letters from kids in schools and felt like everybody was pulling for me. It meant a lot to me that people took time from their own lives to encourage me.” Raita felt tons of encouragement from the community during his battle with cancer, and this motivation is what helped him push through the hardest of days.

“I had a great support system, both from the community and at UAB. Dr. Tina Wood was my oncologist, and Dr. Marty Heslin was my surgeon — both of them are just terrific. I was so blessed to be at UAB,” says Raita. After being

cancer free for five years, the doctors found a couple spots on Raita’s lung that they wanted to remove, but he did not need chemotherapy or radiation and bounced back after two short weeks.

Moving On

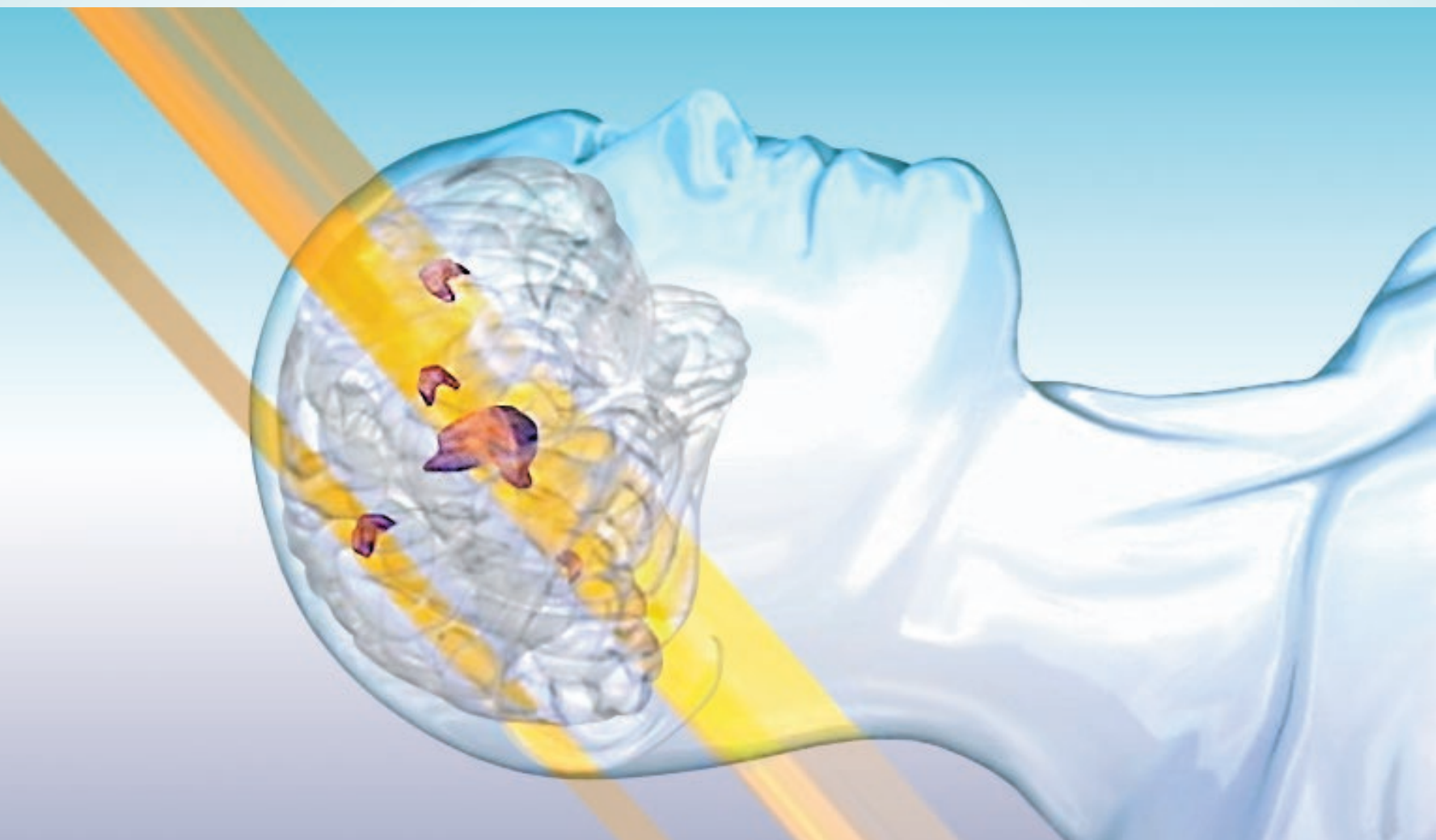
“Everybody knows somebody who has had cancer. Either you’ve had it yourself, your brother, your grandmother, or your friend of a friend has had cancer. I am not special because I had cancer, I am one in hundreds of thousands of people who have had this disease.” Raita is very attentive to his follow-up appointments and other yearly check-ups.

He feels strongly in encouraging others to receive their necessary colorectal screening, although he jokingly admits the preparation for that procedure is the worst part. “There are things in life that I think are prudent that you do, I think getting your colonoscopy is one of them,” says Raita. “Pay attention to your body. Pay attention to what you eat, but really just try to stay in tune with your body and address ailments that don’t feel right.”

Now more than two years’ cancer free, Raita laughs, “I am living life man! I feel great!” Raita has spent a lot of his time doing freelance work, interviewing, speaking to groups about his cancer journey and being a cancer survivor. “I do not think about cancer. I am more than happy to speak to groups or give advice from my experience, but again, cancer is not something I think about nor something I have ever let define me or dictate who I am going to be.”

Raita is currently working for an advertising agency in Birmingham. “Your diagnosis is not the end of the world. Continue to be yourself and do what you do. It is not as bad as you think it is, if you have the right attitude.”

“I didn’t want people to look at me with some sort of sympathy because I have cancer. I wanted them to watch me because of who I am and what I love doing.”



UAB first in U.S. to use HyperArc High-Definition Radiotherapy on brain cancer

By
BEENA THANNICKAL

This past year, the University of Alabama at Birmingham treated brain cancer patients for the first time utilizing Varian HyperArc™ High-Definition Radiotherapy, making the academic medical center the first in the United States to use this technology for complex radiosurgical procedures.

With HyperArc, which Varian Medical Systems tested and partly developed in collaboration with UAB, clinicians can deliver more compact radiation doses that closely conform to the size, shape and location of brain cancer tumors while sparing more surrounding healthy tissue.

About 20-40 percent of cancer patients will develop brain metastases. More than half of them will have more than one tumor in the brain. The risk of a metastatic brain tumor depends on the kind of cancer and how advanced it is when it is diagnosed. Typically, an increasing number of patients return for retreatment of their disease.

"HyperArc allows us to plan and deliver state-of-the-art radiosurgery to highly complex cases efficiently with a very high degree of dose compactness and conformity, and has made it possible to treat patients with larger numbers of brain metastases very aggressively," says John Fiveash, M.D., professor and vice chair for academic programs in the UAB Department of Radiation Oncology. He is also a senior scientist at the UAB Comprehensive Cancer Center.

"Initially five radiosurgery patients were treated with HyperArc therapy that first day," Dr. Fiveash says. "Most of these patients had multiple brain metastases. We were impressed with the quality and efficiency of the plan creation and treatment delivery. Patients are excited to be treated in a normal time slot of 15-20 minutes without the requirement of an invasive stereotactic head frame."

HyperArc contains a prescriptive workflow that includes simulation guidelines, patient immobilization, treatment planning, patient setup, imaging and pre-determined delivery sequence.

"HyperArc allows us to irradiate multiple tumors at the same time without repositioning the patient, which provides better management of patient movement while saving time for the patient and the clinical team," Dr. Fiveash says.

"Basically, HyperArc is designed to enable consistent, high-quality planning and seamless

one-click delivery," says Richard Popple, Ph.D., professor and assistant vice chair for Physics in the UAB Department of Radiation Oncology. He is also an expert in novel treatment planning techniques and clinical implementation of new technologies and a senior scientist at the UAB Comprehensive Cancer Center.

HyperArc addresses concerns about complexity, patient safety, cost and human resources that can make radiosurgery inaccessible for many patients and unfeasible for many institutions.

"Working closely with leading institutions like UAB played an important role in the development of HyperArc," says Kolleen Kennedy, president of Varian's Oncology Systems business. "We value their continued contributions to the advancement of cancer care, and we are excited that HyperArc treatments have now begun in the U.S."

Planning Through the Workflow

For the past several years, UAB has been working with Varian to bring HyperArc technology to fruition. UAB has been involved with four other institutions in developing optimization tools to enhance the dose and treatment delivery. They developed dedicated algorithms to ensure efficient workflow, and new ways of looking at multiple targets simultaneously, all while reducing the complexity of the planning process for clinicians. In addition, UAB helped devise metrics to use for single and multiple targets that can be customized.

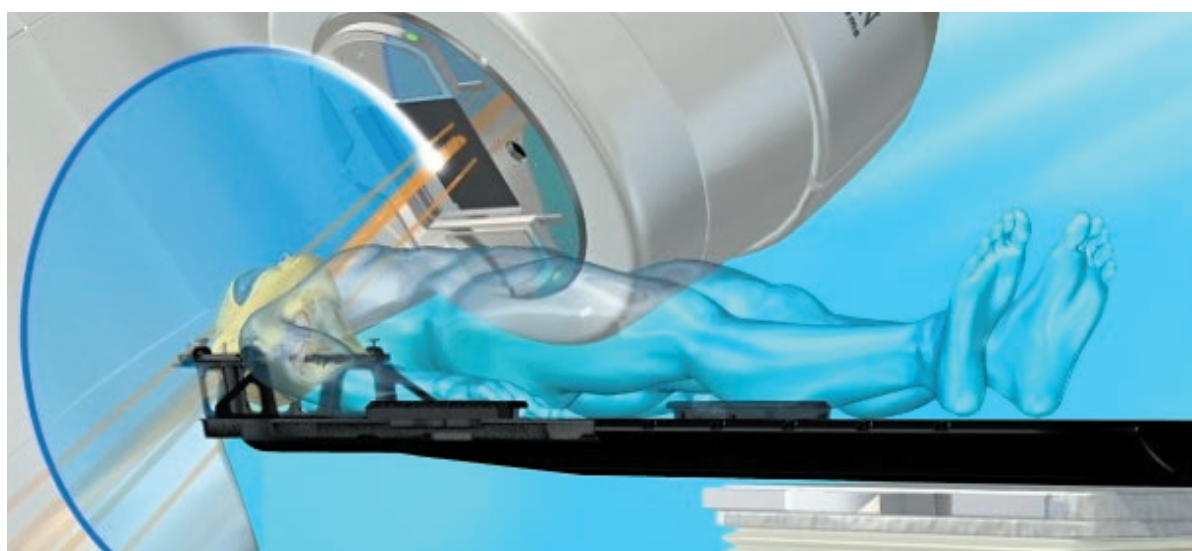
Maximizing Cost and Efficacy

"We are able to help more patients without the need to invest in additional or new equipment," Dr. Popple says. HyperArc capitalizes on the unique capabilities of Varian's TrueBeam™ and EDGE™ treatment systems, which UAB already uses.

"HyperArc allows us to irradiate multiple tumors at the same time without repositioning the patient, which provides better management of patient movement while saving time for the patient and the clinical team."

*John Fiveash, M.D.,
professor and vice chair
for academic programs
in the UAB Department
of Radiation Oncology*

The advanced HyperArc treatment can be completed within a conventional treatment timeslot, making it an efficient approach compared to other radiosurgery techniques that treat each target individually or separately and take considerably longer.



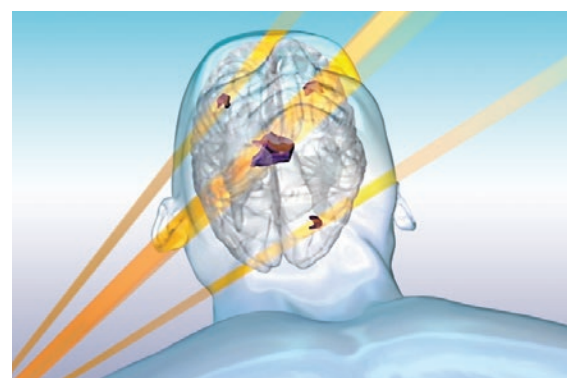
The advanced HyperArc treatment can be completed within a conventional treatment timeslot, making it an efficient approach compared to other radiosurgery techniques that treat each target individually or separately and take considerably longer.

Addressing Patient Safety

Patient safety was a central pillar in the product design philosophy. “Fully automated treatments present operational challenges because of patient safety concerns,” says Dr. Popple. “We address this challenge by using virtual dry runs and collision avoidance systems integrated into the treatment machine.” Specifically calculated arcs and couch positions are compatible with patients’ clearance to the machine. Even the hardware that the patient wears is digitally modeled in the treatment planning system for safe delivery and ensuring minimal patient movement.

Moving the Needle in Brain Surgery

Tumors in the brain are usually distributed throughout the brain and can affect many basic functions, making it one of the most complex of all surgeries. This technique provides an alternative targeted approach when surgery might



not be possible, or the tumor is located in a compromising area.

“HyperArc treats all the patient’s tumors at once, allowing for a more efficient and comfortable radiosurgery procedure,” says Bart Guthrie, M.D., professor in the UAB Department of Neurosurgery. “Since we can easily treat more than 10 tumors, more patients will be able to avoid the cognitive side effects of whole brain radiation therapy.”

“We are very excited about these first treatments using HyperArc as we usher in a new era of precision in radiotherapy and radiosurgery for cancer patients,” says Dr. Fiveash. “Bottom line, we want to be able to make high-quality treatments available to more patients. We want to capitalize on this technology because ultimately it’s our patients who benefit from the most advanced care possible.”



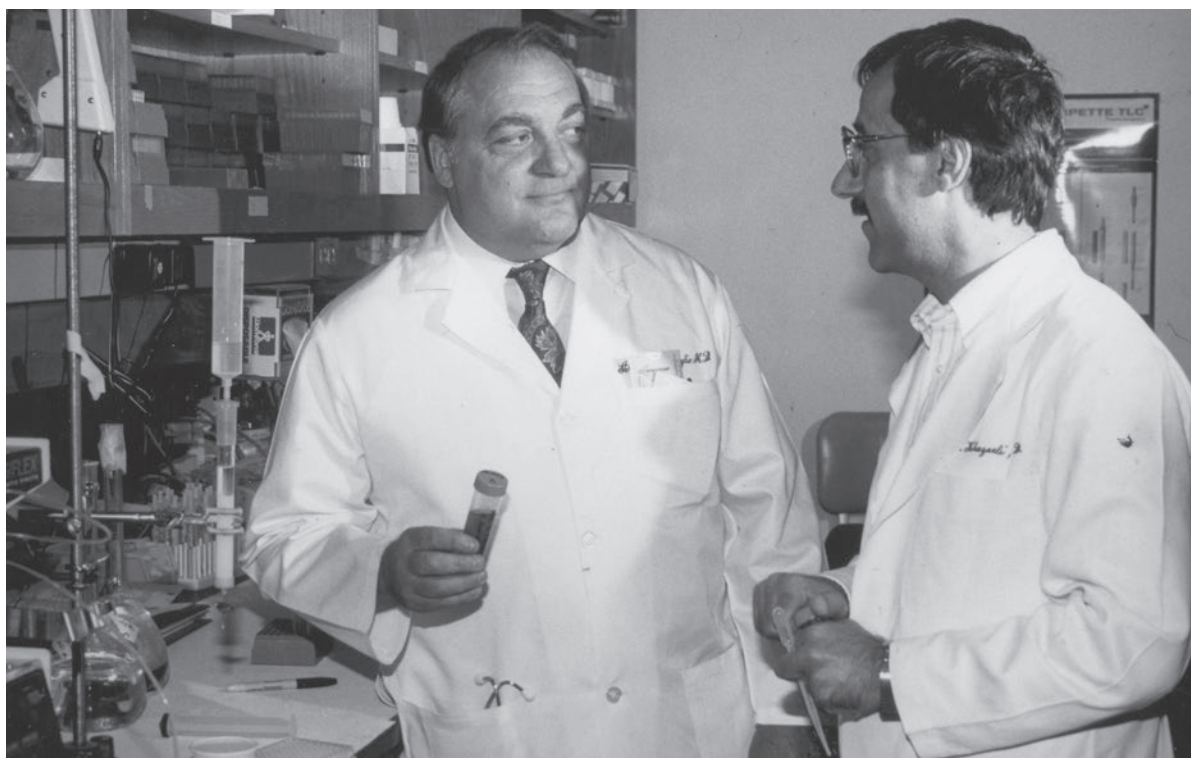
Shaping the “magic bullet”: How UAB scientists helped usher in a new era of precision medicine

By MATT WINDSOR

It sounds like something out of a sci-fi movie: Researchers take ordinary soldiers, train each one to seek and destroy a single enemy, then replicate them millions of times over to create an unstoppable clone army. That’s one way to visualize what happens when scientists make monoclonal antibodies. These powerful medical weapons don’t get much attention outside the research community, but they’re an indispensable part of the new era of precision medicine. They’ve already revolutionized treatment of cancer. And throughout their long and fascinating history, from the 1970s to the present, UAB Cancer Center researchers have played a leading role.

“I got interested in UAB because it was clear that the interaction of faculty across departments wasn’t just something that was talked about, but something that built the institution and moved it forward.”

Albert LoBuglio, M.D.



Albert LoBuglio and M.B. Khazaeli. Photo courtesy UAB Archives.

Seeking the magic bullet

As basic scientists were developing monoclonal antibody (Mab) technology in the late 1970s and early 1980s in their labs, clinicians were searching for ways to bring Mabs to patients.

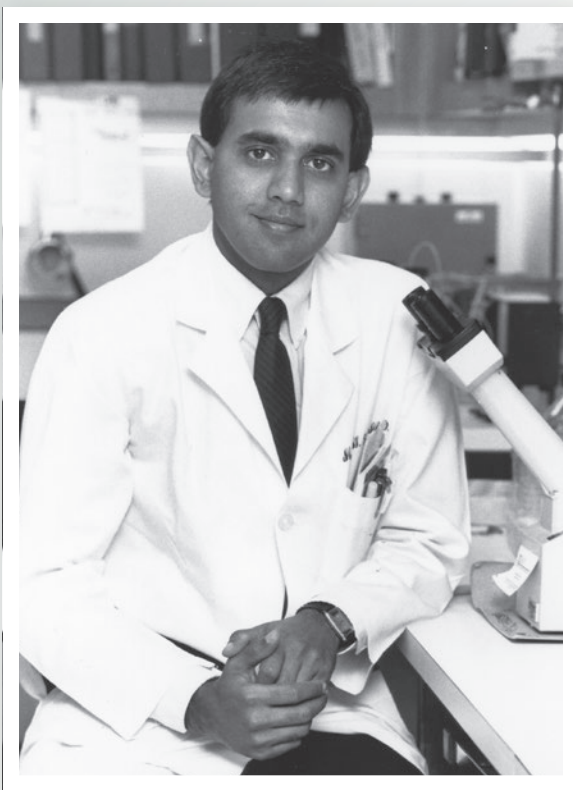
Albert LoBuglio, M.D., who would become the UAB Cancer Center’s second director in 1983, was then director of the Division of Hematology and Oncology and the Simpson Memorial Research Center at the University of Michigan Medical Center.

Albert LoBuglio: “In the early 1980s, a number of institutions had figured out how to use monoclonal antibodies in research. When I arrived at the University of Michigan there was a young basic scientist there in the pathology department named M.B. Khazaeli, who was making monoclonal antibodies for laboratory testing. We met and started to do joint research. Since I had all this antibody background it was sort of a natural transition to monoclonals. We used them to produce novel laboratory tests and animal models of cancer.”

LoBuglio’s excitement about Mabs caught the attention of Mansoor Saleh, M.D., a young resident at the Henry Ford Hospital in Detroit.

Mansoor Saleh: “Dr. LoBuglio came to Henry Ford to give grand rounds, and he used the term ‘magic bullet’ — a targeted antibody therapy that would only kill cancer cells. I thought that was exactly what I wanted to do, so I applied to the fellowship program at Michigan and was accepted. Then I found out he had taken the job at UAB, and I said, ‘OK, I’ll go to Alabama instead.’”

LoBuglio: “I got interested in UAB because it was clear that the interaction of faculty across departments wasn’t just something that was talked about, but something that built the institution and moved it forward. When we came here, it seemed like an ideal time to put a team together specifically for monoclonal antibody studies.”



Mansoor Saleh. Photo courtesy UAB Archives.

Andres Forero, M.D., trained as a fellow with LoBuglio in the 1980s, and has spent much of his career at UAB. He is now a senior scientist and director of the Breast Cancer Program at the UAB Comprehensive Cancer Center.

Andres Forero: “Dr. LoBuglio was one of the first people who saw the future of monoclonal antibodies. Thirty years ago, there were two ways to go in cutting-edge cancer research: one was vaccines, and the other was Mabs. One of the nice things about Dr. LoBuglio is that he was interested in both and worked in both areas. Vaccines, unfortunately, have failed dramatically. Not a single one is available today. But the Mab pathway has become one of the most successful stories in the treatment of cancer.”

First in humans

LoBuglio: “We were in the vanguard looking at use of monoclonals in humans. There had been no mouse monoclonal studies in humans, except small, individual studies in Europe. Our group did the first mouse monoclonal antibody study in the United States with a formal protocol. There had been considerable expertise at UAB in basic immunology. We added a radioisotope labeling person, and a physician to lead the trials and lab people who could do correlative studies.”

Saleh: “There was a company that made antibodies against a target that seemed to be prevalent on tumor cells. They were not tumor-specific, because those targets were also on normal cells, but we had to at least give it a try. We were able to show that, yes, a patient can receive a mouse Mab targeting the tumor. But the half-life of the mouse antibody was very short — a few hours.

“We could give one dose with no problem. By the second dose, the patient had already made an immune response to the mouse, so by the time you gave the third dose it was destroyed very quickly. You really couldn’t use this for therapeutic purposes, although you could use it for imaging.”

LoBuglio: “Our paper said that mouse monoclonal antibodies were impractical, and defined regions that produced the immune response and said that was the area we had to get rid of. So in collaboration with a company called Centocor, we developed a genetically engineered monoclonal antibody that was part mouse and part human.”

“We did the first trial in a human and it worked well. Our conclusion was that these genetically engineered antibodies were what had to be used for efficacy.”

Albert LoBuglio, M.D.

“The first person treated in the first clinical trial of Adcetris was one of my patients here at UAB. We went through all the steps of those studies, and it was approved by the FDA for Hodgkin’s lymphoma a few years ago. It has dramatically improved treatment.”

Andres Forero, M.D.

Saleh: “We were using recombinant DNA technology. We knew the gene for the Fc portion of the antibody [which interacts with a patient’s immune system], so we took the gene for the human Fc portion, and the gene for the mouse Fab portion, which binds to the target. It was 80 percent human and 20 percent mouse: that’s a chimeric antibody.

“The kinetics for the chimeric antibody was multiple days. It wasn’t 21 days, which is the half-life of human immunoglobulin, but it was much longer than mouse antibodies. About 5-7 days, as opposed to 5-6 hours.”

LoBuglio: “We did the first trial in a human and it worked well. Our conclusion was that these genetically engineered antibodies were what had to be used for efficacy.”

Subsequent studies at UAB looked for therapeutic effects, but the response was poor.

LoBuglio: “We pointed out that the antibodies probably needed to interact with a receptor or molecule that was vital to the survival of the tumor. It couldn’t just attach — it had to be something that was critical. You had to find molecules on the surface of the tumor cells that could be inhibited to damage the tumor. It was clear that lots of monoclonal antibodies could localize to tumor sites, and if you radiolabeled them, which we did, you could tell it was getting there. It just wasn’t getting to a deficit of the tumor. We had to find a vital molecule on the surface of the cell.

“Rituxan was one of the drugs that had that benefit. It reacted with CD20 [a cell membrane protein of the tetraspanin family]. Just the attachment interfered with cancer cells and killed them in the test tubes.”

Rituxan was developed by a company called IDEC Pharmaceuticals, based in San Diego, California. LoBuglio had an advisory role with IDEC.

LoBuglio: “We had quite a reputation by then. We ended up with faculty in pathology, radiation therapy, immunology, internal medicine. The kinds of work that are usually done in the mouse we were able to do in humans. The major reason for getting all these trials was the expertise that we had in monoclonals and design of experiments. Within three or four years, we could select whatever partners we wanted from the industrial side of the monoclonal antibody field. It’s a \$20-\$30 million investment to make enough Mabs to give to humans, so companies are looking for people who can do this well.”

“One company working with us made a genetically engineered antibody directed at an epidermal growth factor receptor. That trial showed that antibodies plus radiation could shrink tumors. We published that and then went in and did pivotal trials for FDA approval of the drug, which became Erbitux. That’s still one of the primary treatments for head and neck cancer, and the pivotal trial was done here with our chair of radiation therapy as the principal investigator.

“We also did a whole series of antibody trials with toxins attached to the antibody so that it delivered a drug or toxic molecule.”

Saleh: “It’s like a trojan horse. You have antibodies linked to chemotherapy, so the antibody attaches to the tumor and the chemotherapy sneaks in. You have to have a linker between the antibody and the chemotherapy payload, and the linkers had always been sort of shaky. Our first paper with that involved an immunoconjugate where the antibody was very potent but the linker was very shaky, and the chemotherapy would come off. There was quite a bit of toxicity. We were the first one to do an immunoconjugate therapy in humans here at UAB, but it was ineffective. We showed the immune response, but also that the linker was weak and the chemotherapy was coming off.”



Andres Forero discusses a UAB clinical trial with a care team member at the Kirklin Clinic.

LoBuglio: “In a group of patients with Hodgkin’s disease we showed that there were benefits. Several years later we took part in pivotal trials of that drug, known as Adcetris, and it’s used today.”

Forero: “The first person treated in the first clinical trial of Adcetris was one of my patients here at UAB. We went through all the steps of those studies, and it was approved by the FDA for Hodgkin’s lymphoma a few years ago. It has dramatically improved treatment.”

LoBuglio: “In fact, we helped start the company that put that molecule together. The head of immunology at one of the major drug companies had decided to shut down its immunology section. We had been doing a lot of collaborations with them, so one of their researchers came and visited us and said he was going to start his own company and negotiate ownership of the antibody’s structure. We helped write the business plan for that company, which is now called Seattle Genetics. They are

a terrific company with a whole lot of antibody-drug conjugates now being studied.”

Saleh: “A number of the pharmaceutical connections that we developed as a result of Dr. LoBuglio’s reputation at that time are the same ones that we work with today in the UAB Phase 1 Clinical Trials Program.” [The program, launched in 2015, is directed by Dr. Saleh.] Right now, we’ve got 20 trials, and two-thirds of those include the delivery of monoclonal antibodies against specific targets.”

Forero: “UAB has been the first in humans in 20 to 30 therapies over the past five years. We work with both large firms and small biotechs that have started to develop exciting new drugs. That allows our patients to have access to these treatments earlier. Adcetris, for example, can cure cases of Hodgkin’s lymphoma, and for years, the only way for people in Alabama to get this drug was at UAB. Our research has brought many benefits to the citizens of this state.”

“Right now, we’ve got 20 trials, and two-thirds of those include the delivery of monoclonal antibodies against specific targets.”

Mansoor Saleh, M.D.

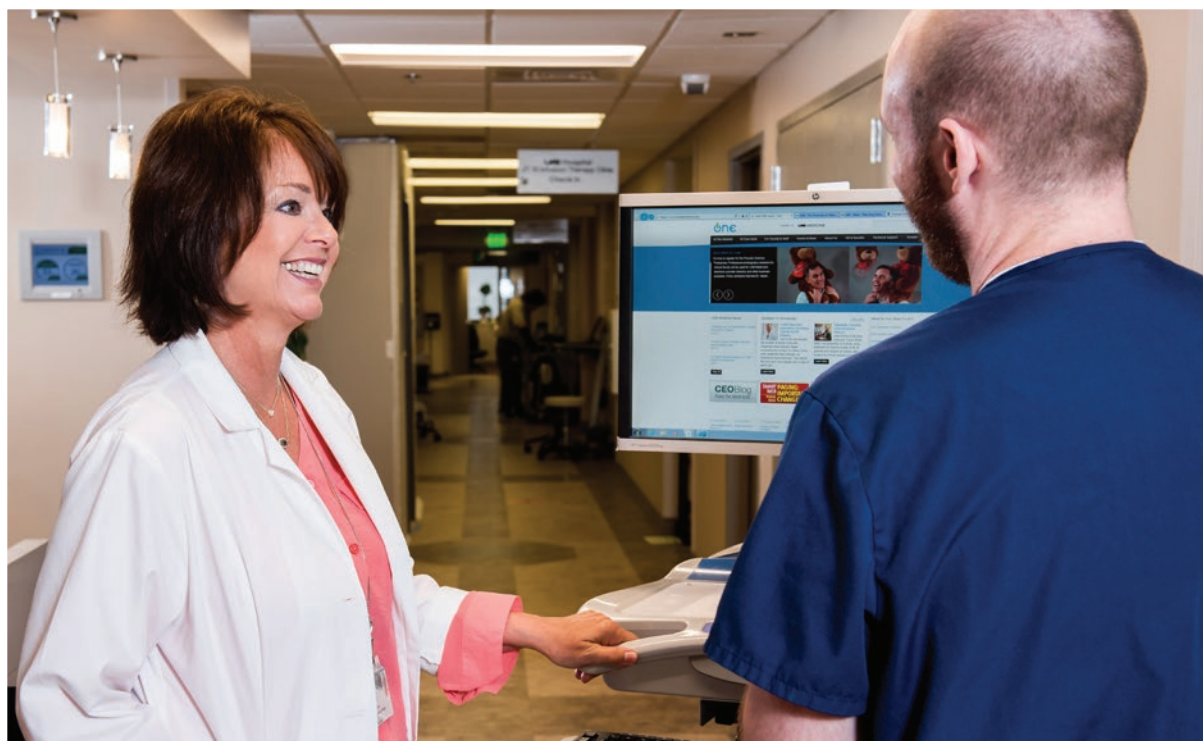


Traci McArdle, R.N., B.S.N.

NURSE PROFILE

By
COURTNEY BISHOP

Traci McArdle, R.N., B.S.N., knew she found her passion the minute she was placed on the oncology unit during nursing school rotations in 1985. Fast forward 31 years, and McArdle has been at UAB ever since. “When I graduated, I knew I didn’t want to be anywhere else but the UAB Comprehensive Cancer Center,” she says.



The Journey

McArdle began her nursing career in 1986 at the UAB oncology inpatient unit. From there, she worked in outpatient care on the hematology oncology unit in The Kirklin Clinic of UAB Hospital, as a nurse researcher in breast cancer at the School of Nursing, then went into nurse recruitment, briefly stepping out of the realm of oncology. Then, it all changed when McArdle ran into Mansoor Saleh M.D., director of the UAB Phase I Clinical Trials Program. McArdle is now a nurse research manager for the Phase I Program. “I wear many, many hats in my position,” McArdle says with a laugh. “Working with Phase I has been nothing short of a blessing to me, and I am so happy that I ended up here with such a rewarding job.”

Working as a Team

The Phase I Clinical Trial Program at UAB provides patients who have no conventional cancer therapy options left, and are willing to try first-in-human clinical trials as options in their continuum of care. Now entering its third year, the Phase I Program is fairly new to UAB but is already showing some promising outcomes.

“Many of our patients are doing better now with the use of targeted therapies, that is using drugs to more precisely identify and attack cancer cells. When they do well, it really keeps the positivity in the unit.” McArdle is hopeful that the Phase I Program will continue to enhance the treatment options that doctors and nurses can use in caring for patients. “The most exciting thing to me about Phase I is being able to offer the

cutting-edge research to patients who sometimes have no other option. These patients come to us looking for what we call ‘a drug called hope,’” says McArdle.

McArdle and the Phase 1 clinical team spend a lot of time with their patients monitoring side effects and addressing symptoms. McArdle explains that these patients are often seen a few times a week, giving herself and the clinical team a chance to form great relationships with their patients. “We all work as a team, we are dedicated and compassionate, and we strive to have the highest integrity and provide the best possible support to our patients,” she says. McArdle hopes to provide every patient with something to help them when they are going through their hardest days.

Experienced Advice

To McArdle, her job is much more than just caring for patients. “Your heart must be in it because there will be good days and bad days.”

Even if she plans to finish out her career in oncology, McArdle explains that in her position she is constantly educating herself, studying and reading, as there is always something to learn. “Nursing is a very difficult profession, physically, mentally, and spiritually, but it is extremely rewarding,” she says. “Every day there is something new that I need to know everything about — such as a first-in-human drug, but at the end of the day, if I can do one thing to help these patients, it makes all of the hard days well worth it.”

“Every day there is something new that I need to know everything about—such as a first-in-human drug, but at the end of the day, if I can do one thing to help these patients, it makes all of the hard days well worth it.”

Mike Slive Foundation for Prostate Cancer Research launches to make a difference in men's lives

By COURTNEY BISHOP

It all started over coffee at Salem's Diner in Homewood between Mike Slive and Ed Meyerson. Slive had been battling prostate cancer and as the former SEC commissioner, knowledge of his diagnosis became public.

Slive's treatment wasn't easy at times, but he realizes how lucky he was to be in Birmingham for treatment and care. "We are fortunate to live in a community with access to such great medical care," he says. "The medical professionals at UAB were an integral part of my treatment and care."

Slive's good friend Meyerson, former president of the UAB Comprehensive Cancer Center Advisory Board, became inspired to start a foundation for prostate cancer research. Meyerson had watched his father battle prostate cancer and now his good friend. "When I asked Mike if this foundation could use his name, he said, 'You know what, it's a contribution I can make because I don't want any other man to go through what I went through,'" says Meyerson. "And with those words, Mike put his name and face on the fight, and here we are today."

Meyerson and Slive created the Mike Slive Foundation for Prostate Cancer Research, realizing they could make the difference in men's lives much like the Breast Cancer Foundation of Alabama does for women. The mission of the Mike Slive Foundation is to save lives by funding cutting-edge prostate cancer research.

The foundation has made great strides in its inaugural year, committing \$150,000 to fund innovative prostate cancer research at the UAB Comprehensive Cancer Center. "The response we have received in such a short time has been amazing," says Anna Slive Harwood, daughter of Mike Slive and vice president of the Mike Slive Foundation. "We are excited to see what 2018 will bring for the Foundation."

The Mike Slive Foundation officially kicked off with a



launch event in September. Paul Finebaum, well-known sports commentator and

close friend of Slive, was keynote speaker at the event. "If you know Mike Slive, he doesn't just lend his name to something, he is going to get very involved too," says Finebaum.

The Mike Slive Foundation has exciting plans for fundraising, including the "Block Cancer" campaign that was just announced. "Block Cancer" will be a season-long UAB Basketball fundraiser. For every blocked shot the UAB Men's Basketball team has, the UAB Athletics staff, including the basketball players, will donate to the Mike Slive Foundation. Fans and friends of UAB Athletics are also encouraged to participate. Their final home game on March 3 will be a Prostate Cancer Awareness Night, \$2 from every ticket sold will go to the Mike Slive Foundation, and prostate cancer survivors will be honored during the game.

One of the goals of the Mike Slive Foundation is to change the dialogue about prostate cancer. "Prostate cancer is where breast cancer was 25 years ago," Slive Harwood says. "People don't talk about it. Men really don't want to talk about it. One of our goals is to change that dialogue."

The public can support prostate cancer research and the Mike Slive Foundation by signing up to receive a newly approved designated prostate cancer license plate. Visit MikeSliveFoundation.org to register for the specialty tag.

"My life was saved by cutting-edge prostate cancer research. Now, I have the opportunity to give back and help save other lives through the Foundation," says Slive. "No one should die from prostate cancer."

Lucy and Ruby's Brainy Day

Back in May 2013, Lucy and Ruby Harris held a lemonade-and-cookie stand to raise money for UAB, “daddy’s hospital,” the hospital that cared for their dad. Scott Harris, the little girls’ dad, suffered from glioblastoma brain cancer. When their dad passed away in November 2013, it made Lucy and Ruby want to help other families.

Lucy and Ruby’s lemonade stand raised \$3,000, and that’s when Lucy and Ruby’s Brainy Day, a community event, was born. The events have raised more than \$55,000 for brain cancer research and patient support services at UAB and Children’s of Alabama. In May 2017, the girls’ held several events throughout the month at different ice cream and frozen yogurt shops around Birmingham. The idea was to give more people the opportunity to participate.

What started out as just a lemonade stand is now a fundraising event every May. “To me, these events are more about brain cancer awareness than about actually raising money,” says Lisa Harris, Lucy and Ruby’s mom and a member of the UAB Comprehensive Cancer Center Advisory Board. “It’s really important for people to know that even with small contributions that they can make an impact.” Most importantly for Lucy and Ruby, it keeps alive the memory of their dad.



Leon Edwards provides funds for specialized equipment

Leon Edwards of Edwards Chevrolet has donated \$100,000 toward the purchase of a High Resolution Orbitrap Mass Spectrometer for the UAB Comprehensive Cancer Center’s Mass Spectrometry/Proteomics (MSP) Shared Facility. Mr. Edwards donated this lead gift to James Mobley, Ph.D., associate professor in the UAB Department of Surgery, in memory of his son, Sterling Edwards, who had a fatal aneurysm.

The Mass Spectrometer instrument will aid in a better understanding of cancer biology, early identification of biomarkers of disease, and improving identification of new and better drug targets. Mr. Edwards continues to support the UAB Comprehensive Cancer Center and we are appreciative of his generosity.



Pictured, L to R: Dr. James Mobley, Leon Edwards and Lee Edwards.



FIESTA BALL 2017

The 11th annual Fiesta Ball was held on May 5, 2017 at Iron City in Birmingham. Over 500 guests enjoyed the Cinco de Mayo-themed evening filled with live music, Mexican food and drinks, as well as a silent auction. Fiesta Ball has become one of the most popular events among young professionals in Birmingham. This year's event, with lead sponsor Alabama Power Foundation, raised over \$100,000 to fund the Mary Ann Harvard Young Investigator Awards.





Mona Fouad Elected to National Academy of Medicine



Mona N. Fouad, M.D., M.P.H.

Mona N. Fouad, M.D., M.P.H., professor and director of the Division of Preventive Medicine in the UAB School of Medicine, has been elected as a member of the National Academy of Medicine — one of the highest honors given to a physician or scientist in the United States.

Dr. Fouad is nationally recognized as a leader in health disparities research and collaboration. Her work generates and combines research from biomedical, behavioral and social sciences in an interdisciplinary approach to address health disparities. Her impact among the national community of scholars — especially young scholars from diverse, underrepresented backgrounds — has spread beyond her institution to touch others in alleviating these disparities among vulnerable populations.

The National Academy of Medicine, established in 1970 under the name Institute of Medicine, is an independent organization of eminent professionals from diverse fields including health and medicine — the natural, social and behavioral sciences — and beyond. Membership in NAM is widely viewed as one of the highest honors in the fields of health and medicine, and is limited to individuals who have

demonstrated both exceptional professional achievements and outstanding commitment to service.

“In her career, Dr. Fouad has a huge impact in her interdisciplinary approach toward the elimination of health disparities,” says Selwyn M. Vickers, M.D., senior vice president for Medicine and dean of the UAB School of Medicine. “As both the dean and a frequent collaborator with Dr. Fouad’s research efforts, I’m pleased that Mona’s career is being honored in a way that truly highlights her accomplishments.”

Dr. Fouad’s career at UAB began in 1991 as an instructor in the Department of Medicine. In 2002, she became the founding director of the Minority Health and Health Disparities Research Center, a university-wide interdisciplinary research center. In 2009, she became director of the Division of Preventive Medicine and in 2013 was named senior associate dean for Diversity and Inclusion in the School of Medicine. From 2003 to 2013, she served as co-leader of the Cancer Control and Population Science Program in the UAB Comprehensive Cancer Center, and she is currently senior adviser to the Cancer Center director. She is also a member of the Diabetes Research and Training Center, the Nutrition Obesity Research Center, the Center for Outcomes and Effectiveness Research and Education, and the Comprehensive Center for Health Aging.

Fouad has worked tirelessly to establish the validity of health disparities as a national scientific research priority. There has been an unprecedented expansion of health disparities research at UAB and in collaborative relationships with national and international grant partners, as well as an increase in the number of researchers and young scholars pursuing careers in minority health and health disparities.

Her achievements have been recognized nationally as a recipient of the American Cancer Society St. George National Award in 2016, recognizing her distinguished service to achieving the ACS’ strategic goals and the 2016 President’s Council on Fitness, Sports and Nutrition Community Leadership Award for exemplary service and dedication to improving the lives of others by promoting and fostering opportunities for participation in fitness, sports and nutrition programs. Dr. Fouad was also named one of the 2016 “Women Who Shape the State” by the Alabama Media Group.

“I’m tremendously proud of Dr. Fouad and grateful to count her as a colleague and leader at UAB,” says C. Seth Landefeld, M.D., chair of the UAB Department of Medicine. “In her work, in her writing and in her leadership, Dr. Fouad has opened eyes to disparities in health and health care, and she has pioneered efforts to reduce these disparities — contributions that change our world.”

Childhood cancer research at UAB continues with grants from St. Baldrick's Foundation

The University of Alabama at Birmingham was awarded two grants totaling \$262,824 from the St. Baldrick's Foundation, a volunteer-powered charity dedicated to raising money for childhood cancer research. UAB researchers Jonathan McConathy, M.D., Ph.D., associate professor in the UAB Division of Molecular Imaging and Therapeutics, and Corey Falcon, M.D., fellow in the UAB Department of Pediatrics, were awarded the grants to continue looking for cures and better treatments for all childhood cancers.



Jonathan McConathy,
M.D., Ph.D.



Corey Falcon, M.D.

Dr. McConathy, a scientist at the UAB Comprehensive Cancer Center, received \$99,375 to use a powerful new combination of imaging techniques to guide the treatment of children with brain tumors, help surgeons plan brain tumor surgery and detect residual tumor after surgery to plan the next steps in treatment.

Working with a team of physicians at UAB and Children's of Alabama, this project will use a novel hybrid PET/MRI system combined with a PET tracer called FET, produced by the UAB Cyclotron Facility, to visualize increased amino acid transport by brain tumors. In the long term, this technique has the potential to improve the lives of children with brain tumors by providing better imaging-guided treatments and speeding the development of new therapies by providing a more rapid and accurate determination of whether the treatment is working. The team includes Alyssa Reddy, M.D., professor in the UAB Division of Hematology and Oncology; Jeff Blount, M.D., professor in the UAB Division of Neurosurgery and chief of Pediatric Neurosurgery at COA; and Sumit Singh, M.D., pediatric radiologist at COA.

Dr. Falcon received a \$163,449 grant from the Not All Who Wander Are Lost Fund to continue his research aimed at creating a novel strategy around cellular suicide gene, or cells that kill themselves through apoptosis. The strategy can be used to eliminate chimeric antigen receptor (CAR) redirecting human T-cells (CAR-T) that target pediatric acute lymphoblastic leukemia cells. Unlike low- or average-risk pediatric ALL, a subset of high-risk ALL remains resistant to traditional chemotherapy resulting in frequent relapse and recurrence of disease.

CAR-T cells are emerging rapidly as an extremely promising treatment for refractory leukemia. However, the cells do carry the intrinsic risks of excess proliferation, insertional mutagenesis, anaphylaxis, and "on-target/off-tumor" side effects resulting in potentially severe cytokine release syndrome, fatal organ damage and death. The development of a reliable suicide safety switch for CAR-T cells gone wrong could ameliorate these dangerous side effects on demand and significantly enhance the safety of this promising therapy. Dr. Falcon's research team includes Antonio Di Stasi, M.D., assistant professor in the UAB Division of Hematology and Oncology and the UAB Bone Marrow Transplantation and Cell Therapy Program Unit, and Frederick Goldman, M.D., professor and director of the UAB Pediatric Bone Marrow Transplant Program.

Every two minutes, a child is diagnosed with cancer worldwide. One in five kids diagnosed in the United States will not survive, and of those who survive, two-thirds will suffer from long-term effects from the very treatment that saved their lives. As the largest private funder of childhood cancer research grants, St. Baldrick's supports the best research, no matter where it takes place, giving hope to every child.

The UAB Comprehensive Cancer Center's Patient & Family Resource Center provides a comfortable place to find support. If you or a loved one has been diagnosed with cancer, our staff can answer your questions about the illness, treatment options, and available support services.

This can include:

- Cancer Prevention
- Dealing with Side Effects
- Clinical Trials
- Complementary Therapies
- Stress Management
- Spirituality
- Support Groups & One-on-One Support
- Mindful Meditation
- Restorative Yoga
- Art Therapy
- Grief Counseling
- Medical Concierge
- Integrative Medicine Therapies

PATIENT & FAMILY RESOURCE CENTER

Wallace Tumor Institute,
Room 220

For more information,
contact

Teri Hoenemeyer,
(205) 934-5772
tgw318@uab.edu

Cancer Patient Meets His One in 24 Million Match



Jimmy Roberson and Alina Franke

It took a harrowing diagnosis of aplastic anemia, two unsuccessful chemotherapy treatments, 50 blood transfusions, more than 25 platelet injections, and almost three years and 4,650 miles before Talladega, native Jimmy Roberson could meet who he says is his angel here on Earth. Her name is Alina Franke, a 27-year-old Hamburg, Germany, native who donated stem cells way back in 2009, all because she hoped to help someone in need one day.

That someone turned out to be Roberson, a former Talladega County commissioner and Chelsea City Council member. Franke and her boyfriend, Christoph Kleeberg, traveled from Germany to the United States in September to meet Roberson and his wife, Michele, for the first time. The meeting at the Birmingham International Airport was emotional for Roberson and Franke, who had previously communicated through email, but never spoken to one another.

“Neither one of us could talk at first,” Roberson says of the airport meeting. “We were hugging, and I don’t know if I was shaking and it was shaking her, but we both were shaking. And we were in silence for 30–45 seconds. I finally just told her that I wanted to thank her for saving my life, and that she’d always be my angel. Always.”

“It was an emotional experience, for sure,” Franke says. “I didn’t think I would ever meet my recipient. When I learned someone was going to benefit from my stem cells, I was just excited to learn someone was being helped.”

For Roberson, help arrived in the form of a one in 24 million long shot. That’s how many people his caregivers at

UAB and the Be The Match Foundation had to go through to find what, or better yet, who Roberson needed — Franke, who was a perfect match.

“The clock was ticking on my life, and fortunately, my angel was found,” says Roberson. “I would not be here today without her kindness, her selflessness and her willingness to give of herself, all in the name of helping a total stranger — one who ultimately wound up being half a world away.”

UAB’s Comprehensive Cancer Center and the School of Medicine’s Blood and Bone Marrow Transplantation and Cellular Therapy Program team of physicians and nurses were vital to keeping Roberson alive long enough to receive the transplant at UAB Hospital, he says.

“Between my wife and the care team at UAB — I would never even have had the opportunity to be alive long enough to get the transplant, and even after the transplant when I had some really bad days when my body was trying to reject the bone marrow,” says Roberson. “My doctors, Antonio DiStasi, Racquel Innis-Shelton, Luciano Costa, Donna Salzman and many others, and then my nurses, Lea Freeman, Jay Smith, Tiffani Hill, Becky Howard, Melissa Sentell, Binita Parekh and so many others — everyone, literally everyone, in UAB’s bone marrow unit are family to me. I just love them and thank them for everything they did for me.”

After Roberson improved enough to go home and he continued to regain his strength, he hoped to one day meet his donor. Typically, recipients can ask the Be The Match Foundation to reach out to donors to see if they would be willing to connect one year after the transplant. But in Roberson’s case, he had to wait two years to comply with Germany’s rules on contact with donors.

When the Be The Match Foundation connected with Franke, she said she was willing to learn who the recipient of her bone marrow was. After the Robersons and Franke had written each other through email over several months, the Robersons offered to host Franke and Kleeberg any time they wanted to come to the United States.

“Alina is very humble, and she did not donate to receive recognition,” Roberson says. “She did it purely out of the kindness of her own heart. I can never repay her for what she did, but Michele and I could tell her how much we appreciate what she did and love her for what she did.”

UAB SUPPORT RESOURCES

THE SUPPORTIVE CARE CLINIC:

is an interdisciplinary approach to caring for patients with serious illnesses, whether they are in active treatment or have completed treatment. The goal of this program is to help patients fulfill their maximum physical, emotional, spiritual, vocational, and social potential. Appointments can be made by self-referral or physician referral. **(205) 801-8624.**

THE BREAST CANCER SURVIVORSHIP PROGRAM:

offers specialized, long-term follow up care for breast cancer patients after treatments end. Participants in this program are monitored for any long-term effects of breast cancer treatments, referred for management of identified problems, and provided a Survivorship Care Plan including a personalized record of treatment, guidelines for continued monitoring, and information on support resources. Appointments can be made by self-referral or physician referral. **(205) 638-2155**

CANCER EXERCISE SERVICES:

assists with developing an exercise training designed to optimize health and wellbeing in a way that helps cancer patients transition into a safe exercise program during and after treatment. Services offered include fitness assessments, one-on-one or group exercise sessions, and education on safety and quality of life. To schedule a free consultation, call **(205) 975-1247.**



Dr. Thomas Rosenstiel presents "Transition" to Jennifer Hicks, program director of the Center for Palliative and Supportive Care.

Rosenstiel, physician and head and neck cancer survivor, donates painting to the UAB Supportive Care & Survivorship Clinic

Thomas Rosenstiel, M.D. was an Ob-Gyn in Tuscaloosa when he was diagnosed with nasopharyngeal cancer, a rare type of head and neck cancer. He most recently celebrated five years of being cancer-free. During his treatment, UAB's Palliative Care Unit helped him improve his quality of life and manage his side effects.

Though he had to retire from medicine, he is now a full-time artist, and to show his appreciation to UAB, he presented an original piece that will be hung in the Supportive Care & Survivorship Clinic. Entitled "Transition," the painting reflects the beauty in uncertainty. "A transition can be an end or a beginning. It's all about perspective. Transitions can have sadness and loss, but also beauty and grace," says Dr. Rosenstiel.

Jeffrey Immelt, chairman and CEO of GE tours UAB Comprehensive Cancer Center

Jeffrey Immelt, former chairman of the board and CEO of GE, visited the UAB Comprehensive Cancer Center's cyclotron and imaging facilities. With continuous funding from the National Cancer Institute as a 'comprehensive' cancer center with state-of-the-art technology and groundbreaking research, it remains a premier institution in the southeastern region of the United States. GE Healthcare provides transformational medical technologies and imaging services to meet the demand for increased access, enhanced quality, and more affordable healthcare around the world.



Pictured, L to R: Andrew Osucha, GE; Ken Shaw, GE; Suzanne E. Lapi, Ph.D., director, Cyclotron Facility and the Radiochemistry Laboratory at UAB; Jeffrey Immelt, GE; Ed Partridge, M.D., former director of the UAB Comprehensive Cancer Center; Jonathan E. McConathy, M.D., Ph.D., director, Advanced Imaging Facility and the Division of Molecular Imaging and Therapeutics, UAB; and Christopher S. Brown, Ph.D., vice president for Research, UAB.

Governor Ivey visits the UAB Comprehensive Cancer Center



Governor Kay Ivey visited the UAB Comprehensive Cancer Center in August 2017 to get a better understanding of the capabilities to what is often referred to as the "People's Cancer Center." She was particularly impressed to see the Advanced Imaging Facility which houses the most powerful cyclotron found in any academic medical setting in the United States. Gov. Ivey was also excited to see a portrait of Lurleen Wallace, the first female governor of Alabama whom Gov. Ivey had met as a young woman. Gov. Wallace succumbed to cancer half way through her term in office. The Wallace Tumor Institute is the physical home of the UAB Comprehensive Cancer Center.

Art Event Creates Lasting Symbol of Hope for those Affected by Cancer



An art event, *Visions of Hope: Expressions of a Cancer Journey*, created a lasting symbol of hope to honor all who walk the cancer journey. The event, designed to help people affected by cancer cope with the emotional side of the disease, was open to patients, survivors, families, caregivers and clinicians. “Therapeutic art is an excellent way for patients, survivors and families to cope with the trauma of cancer diagnosis,” says Teri Hoenemeyer, Ph.D., director of Education and Support Services at the UAB Comprehensive Cancer Center. “We’re really excited to be able to share this opportunity as a way to honor a loved one, a friend or a patient, or just to celebrate life.”

Sponsored by Lily Oncology on Canvas, UAB Arts in Medicine and the UAB Comprehensive Cancer Center, this event honored all who are affected by cancer. The finished colorful artwork will be on display in different clinical areas at UAB.

CONTINUED UAB SUPPORT RESOURCES

THE INTEGRATIVE MEDICINE CLINIC:

focuses on treating the whole person and not just the disease. This clinical program emphasizes preventive health through individualized medical care and is supervised by a hematology oncologist. Services offered include supplement and naturopathic assessment, psycho/social assessments, symptom management, nutritional counseling, and complementary therapies like meditation, yoga, art, and acupuncture. Appointments can be made by self-referral or physician referral. (205) 638-2155.

UAB COMPREHENSIVE OVARIAN CANCER PROGRAM:

a navigator-driven, patient-centric program that offers patient- and family-centered ovarian cancer care. Services include genetic counseling, fertility counseling, nutritional counseling, and supportive services like naturopathic medicine services, mind/body treatments, oncology rehabilitation services, and one-on-one mentoring and support with other cancer survivors. For more information, call (800) 822-6478.

Pam Alverson

UAB EMPLOYEE OF THE YEAR

Pam Alverson, program director for the Office of Program Review and Monitoring Systems in the UAB Comprehensive Cancer Center, has been named UAB Employee of the Year, the university's highest non-academic employee award.

"I am deeply honored and humbled to receive this recognition," says Alverson. "To be awarded for a job you enjoy and working with people you love and respect is incredible. I am proud to work for UAB and be a part of the on-mission Comprehensive Cancer Center team."

Alverson, who was selected December 2016's Employee of the Month, was praised for her calm attitude that provides stability in an overwhelming system and for her dedication to her position.

In her role, Alverson oversees the administrative tasks of the scientific review process for cancer-related clinical trials, interacting with investigators, working groups and related committees and essentially moving clinical research protocols through the center's process.

"She has incredible attention to detail working with scores of physicians and scientists performing clinical trials," says Edward Partridge, M.D., former director of the Cancer Center and one of the people who nominated her. "In spite of this challenge — akin to herding not cats, but tigers — I have never once seen her look frustrated or irritated, much less lose her temper. She is simply unbelievable."

Alverson says the biggest lesson she has learned in her 30 years at UAB is that everyone has a story. "Everyone wants to be heard and respected; each person is important."

For her, this was especially personified one spring, when she dressed as the Easter Bunny for the patients at Children's Hospital. "I still clearly remember looking through the mesh eyes of the costume," she says, "and seeing sick children smile."



"You could not select a more deserving and appropriate candidate to exemplify all the expectations of UAB's Core Values. She cares about her job and ultimately the patients that we serve. Pam's role may be a small piece of the Cancer Center's overall scope, but her delivery greatly contributes to the overall mission of providing the highest quality of life to those diagnosed with cancer."

— Elizabeth Busby, R.N., B.S.N., CCRP
*Director of Oncology Clinical Trials, UAB
Comprehensive Cancer Center Clinical Studies Unit*

"It would be difficult to find anyone affiliated with cancer research within the UAB system who has not been touched by Pam Alverson's kindness, generosity, work ethic, and selfless professionalism."

— Mansoor Saleh, M.D.
*Senior Scientist, UAB Comprehensive Cancer Center
& Director, UAB Phase I Program*



WHAT WOULD YOU GIVE *to make a* DIFFERENCE *in the* WORLD?

UAB has set a goal to be one of the most dynamic and productive universities of the 21st century and attain our vision to be an internationally renowned research university — a first choice for education and health care. This means setting priorities, investing our resources carefully and inviting partners to join us in The Campaign for UAB: Give Something, Change Everything — the largest, most comprehensive fund-raising initiative in the university's history. The UAB Comprehensive Cancer Center is proud to be part of this historic campaign, and we encourage you to get involved!

the CAMPAIGN *for* UAB

GIVE SOMETHING | CHANGE EVERYTHING

To learn more, visit www.uab.edu/cancer or contact:
Alex Huffman • ahuffman@uab.edu • (205) 934-1603

U A B C O M P R E H E N S I V E C A N C E R C E N T E R



National
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The National Comprehensive Cancer Network (NCCN), an alliance of 27 of the world's leading cancer centers, is an authoritative source of information to help patients and health professionals make informed decisions about cancer care. Through the collective expertise of its member institutions, the NCCN develops, updates and disseminates a complete library of clinical practice guidelines. These guidelines are the standard for clinical policy in oncology.

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