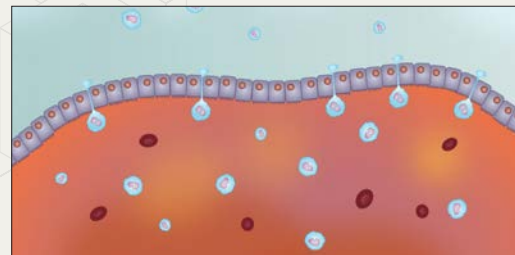
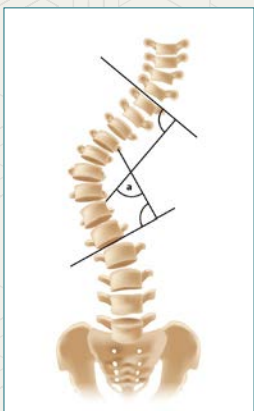
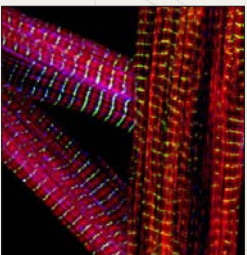




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Yes We Can

teleconference

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The University of Arizona Health Sciences BioCommunications offers a comprehensive range of media planning, creation, production and support services to assist in the instructional, research and public service missions of the University of Arizona Colleges of Medicine, Nursing, Pharmacy and Mel and Enid Zuckerman College of Public Health.

– **RITA ELLSWORTH**, Director
ritae@email.arizona.edu
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Jennifer Von Berg
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Graphic Design Supervisor



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Graphic Designer, Senior



Paul Fini
Web Site Designer/
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Margrit McIntosh
Applications Systems
Analyst/Developer, Senior

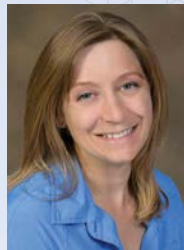


Steve Tkachyk
Graphic Designer, Senior



Andy Ward
Web Site Developer, Senior

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Principal Photographer



Rick Kopstein
Photographer



Mark Thaler
Photographer, Senior

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Videographer/Producer



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Viola Watson
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Support Center Specialist

COPY TECHNOLOGY SERVICES



Misty Blue
Printing/Reproduction
Services Clerk



Scott Jackson
Computer Operator



Mandy Stoffle
Computer Operator



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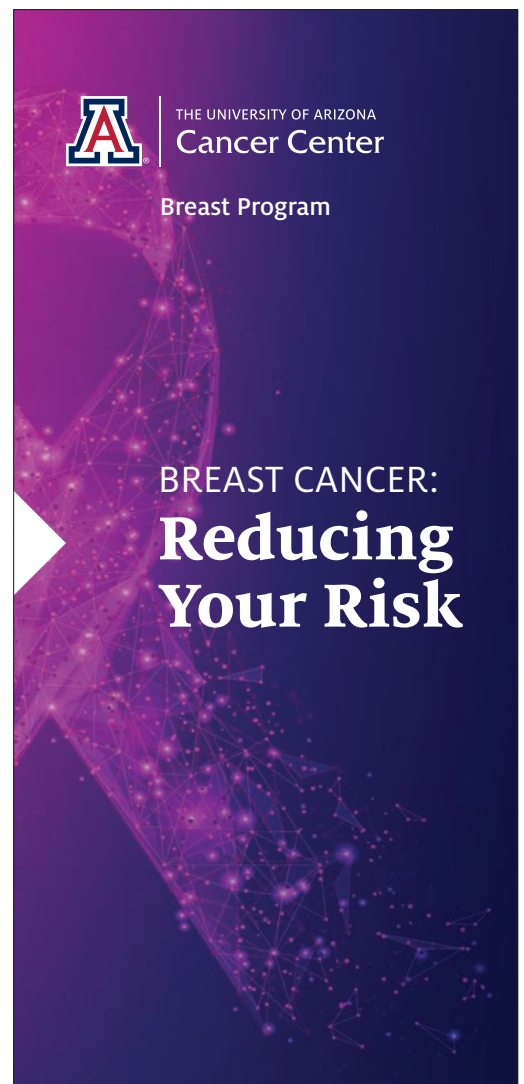
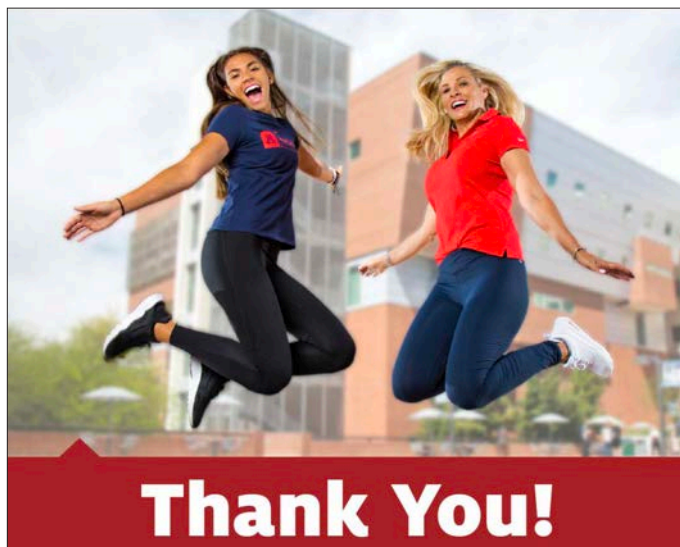
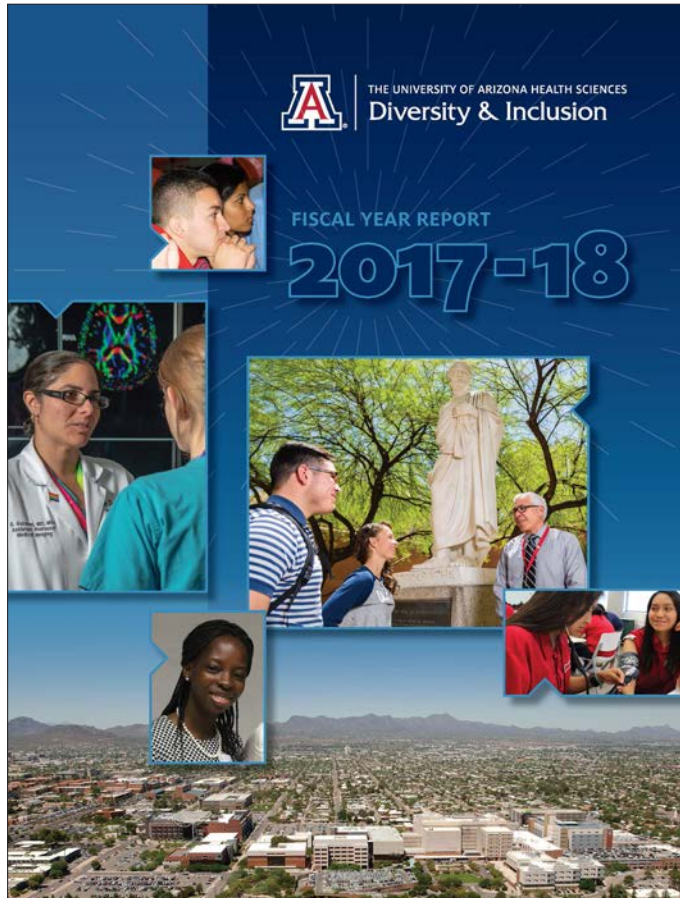


*Annual reports,
brochures, invites,
newsletters, photo
composites, postcards,
posters, powerpoint
presentations and
more*





Graphic Design



BETTER...

better treatments, better cures...

IN THIS LIFETIME.

A PROPOSAL TO

GUNS N' ROSES

PRESENTED BY

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and



The University of Arizona
Health Sciences

THE BACKBEAT

You know you need more than musicians to put on a gig. It takes people without whom the house lights would never dim or to make sure the intro music plays before every show.

It's a lot like that for us, too. We know that it takes more than brilliant researchers and scientists to find answers to these rare and common fat disorders. It takes significant philanthropic support from generous donors to make sure that our research finds its way to patients. It takes patients who are willing to share their personal stories of pain and suffering. It takes people like Brian.

Brian's life in the entertainment business took a drastic turn after he was diagnosed with Dercum's disease. A college-level athlete, Brian was a successful casino entrepreneur and musician who was financially secure. After his diagnosis, Brian has endured chronic pain and fatigue, frequent doctor visits and multiple surgeries that have left him nearly bankrupt as he has continued to search for answers to his disease.

Brian, like thousands of other people with Adipose Tissue Disorders (ATDs), has been disabled by a disease that has resulted in extreme pain, inflammation, and lumpy fibrotic fat that cannot be lost through diet and exercise and deeply affects his quality of life, affects nerves and organs and can lead to other serious conditions.

THE CHALLENGE

Few doctors today know that Dercum's Disease or Lipedema exist nor do they know how to help their patients deal with these diseases. Lack of knowledge about fat and its diseases leaves many people without answers and seeking treatment from those who are ill-informed or unaware of these fat disorders and how to treat them.

Patients like Brian deserve better answers and a pathway to treatment.

We can change that with your support.

LIPEDEMA AFFECTS
17 MILLION
WOMEN IN THE U.S.

50% OF DERCUM'S DISEASE
GROWTHS GROW BACK AFTER THEY ARE REMOVED

16% OF DERCUM'S DISEASE
PATIENTS ALSO HAVE TYPE 2 DIABETES

— nPEP: —

**A BRIEF GUIDE
to HIV Non-Occupational
Post-Exposure
Prophylaxis**

Accidents and Emergencies



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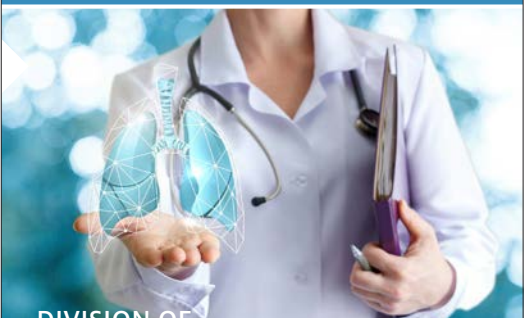
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Exterior
building
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THE UNIVERSITY OF ARIZONA
Cancer Center

TO PREVENT AND CURE CANCER

THE UNIVERSITY OF ARIZONA

ARCS

How Does Centriole Architecture Influence Centrosome Function?

John M. Ryniawec¹, Sophia M. Aguirre¹, Bethany A. Guice¹, Daniel W. Buster¹, Nasser Rusan², and Gregory C. Rogers¹
¹Department of Cellular and Molecular Medicine, UA College of Medicine – Tucson, The University of Arizona
²National Heart, Lung, and Blood Institute, National Institutes of Health, Bethesda, MD, 20892

Genomic Instability Contributes to Cancer Progression

Genomic instability is a hallmark of cancer characterized by scrambling and reshuffling of the DNA.

Genomic instability occurs in almost all types of cancer and changes chromosome number, genetic code, and causes chromosome fragmentation. Over time, genomic instability causes additional changes that lead to malignancy, metastasis, chemoresistance, and relapse.

Two Centrosomes Organize a Mitotic Spindle During Cell Division

Mitosis: Prophase, Metaphase, Anaphase, Telophase, Cytokinesis

Microtubules, Centrosomes, DNA

In normally growing cells, the genome is copied, packaged into chromosomes, and divided equally between two daughter cells. In order to accurately segregate the copied chromosomes, cells construct a bipolar mitotic spindle apparatus, a roadway upon which each chromosome will travel as the cell divides. The fidelity of cell division is ensured by centrosomes, microscopic structures that nucleate and organize the two poles of the spindle. Furthermore, it is essential that each cell have two, and only two, centrosomes as it divides to ensure that each daughter cell receives the proper complement of DNA.

At the core of each centrosome sits a pair of centrioles, barrel-shaped structures composed of microtubules organized in a 9-fold radial symmetry. The centrosomes are surrounded by a highly-ordered cloud of proteins, the pericentriolar material, where the microtubules of the spindle are nucleated and organized.

Centrosome Number Defects Generate Genomic Instability

Normal: Centrosome, Chromosome, Cell Division

Cancer: Centrosome, Chromosome, Cell Division

In most cancer types, cells make too many or too few centrosomes, leading to improper spindle shape and subsequent missegregation of chromosomes. This results in daughter cells that have too many or too few chromosomes and a scrambled, defective genome.

Because chromosome mis-segregation is so prevalent in cancer, it is essential to understand the processes required for proper chromosome segregation in healthy cells.

Control of Centrosome Number is Governed by Centriole Duplication

Centrioles undergo a semi-conservative duplication cycle in which one daughter centriole grows orthogonally off of a mother centriole, maintaining only two centrosomes per cell. During construction of a daughter centriole, it increases in length at distinct intervals; however, there is little known regarding the mechanisms that regulate growth, leading to its question.

What factors control centriole length during its biogenesis?

How do Centrioles Grow to Their Proper Length?

Hypothesis: DTC Dynamics Control Centriole Growth

Super-Resolution Microscopy

RNAi, Antibodies, and Constructs

Live Cell Imaging

Centriole length is normally maintained by an antagonistic Distal Tip Complex (DTC), which prevents centrosome growth and shrinkage. Hypothesize that distinct phases of centriole growth are promoted by modification of the DTC.

Does Abnormal Centrosome Architecture Cause Disease?

Spindle misorientation

Cancer: Primary Microcephaly, Premature Ovarian Failure

Genomic instability

Altered Polarity

Faulty Interference

Altered Organizing

Cancer: Glioblastoma

Many diseases linked to centrosomes are not associated with changes to centrosome number or genomic instability. My findings will elucidate essential mechanisms that regulate centrosome structure, assess links between altered structure and disease, and may provide novel therapeutic targets to treat individuals with these diseases.

References

Agirre, S. & Rogers, G. C. (2015). Centrosome structure and function: A review. *Cell and Tissue Research*, 358, 1-15.

Agirre, S. & Rogers, G. C. (2016). Centrosome structure and function: A review. *Cell and Tissue Research*, 358, 1-15.

Agirre, S. & Rogers, G. C. (2017). Centrosome structure and function: A review. *Cell and Tissue Research*, 358, 1-15.

Acknowledgements

I would like to thank all of the members of the Rogers Lab for their help and support. I would also like to thank the National Institutes of Health (NIH) for their support. Finally, I would like to thank the ARCS Foundation for their support and assistance in completing this research.

Agirre, S. & Rogers, G. C. (2017).

Retractable
banners



ENT in the Desert

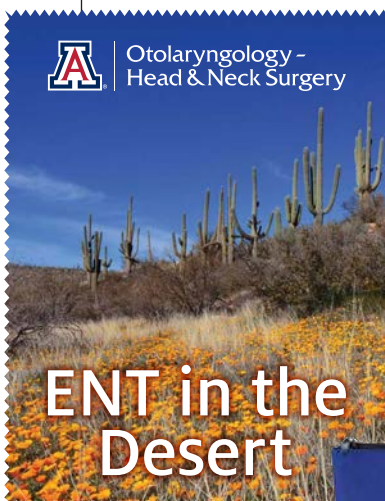
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 Peter H. Hwang, MD, Stanford University, Stanford, California
 Brian Nussenbaum, MD, FACS, American Board of Otolaryngology, Houston, Texas
 Soham Roy, MD, FACS, FAAP, University of Texas Medical School, Houston, Texas

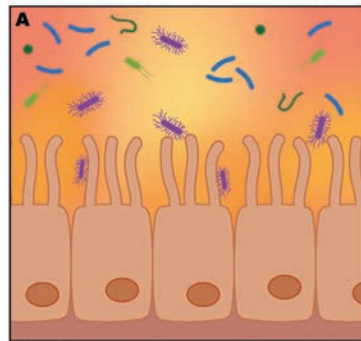
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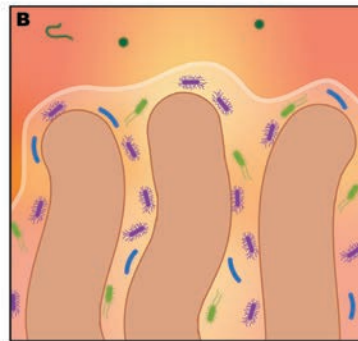


ENT in the Desert continuing medical education conference collateral: program, totebag, microfiber cloth and pen

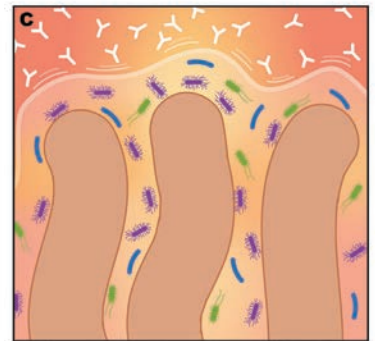




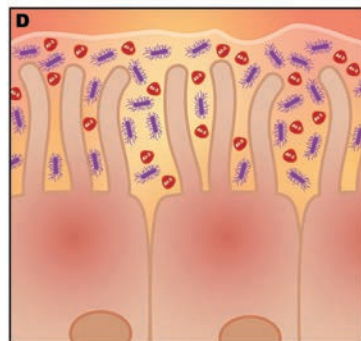
Antibiotics create spatial and metabolic niches for *C. difficile* in the large intestine.



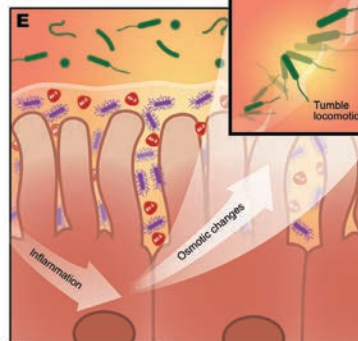
Development of a sessile biofilm community enriched with *C. difficile*, *E. coli* and *Pseudomonas*.



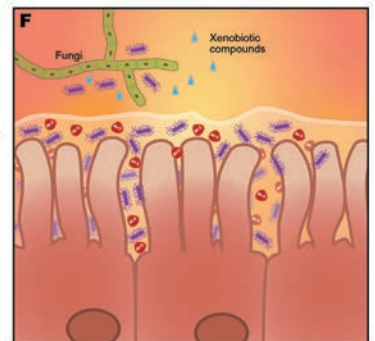
Biofilm production mitigates efficacy of *C. difficile*-directed antibiotics, with antibiotics perpetuating intestinal dysbiosis.



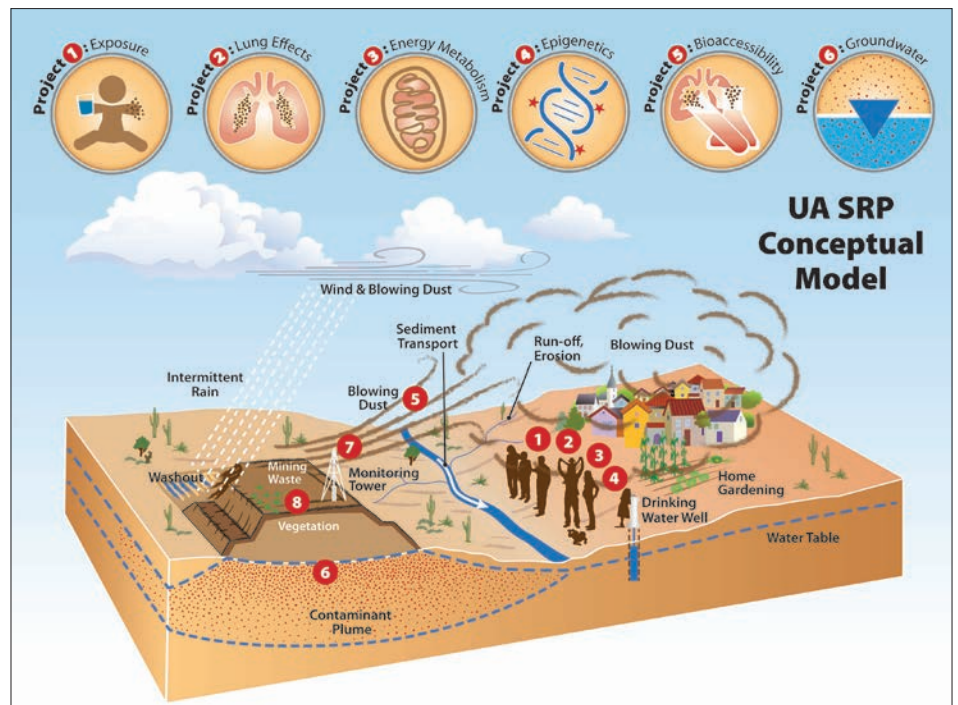
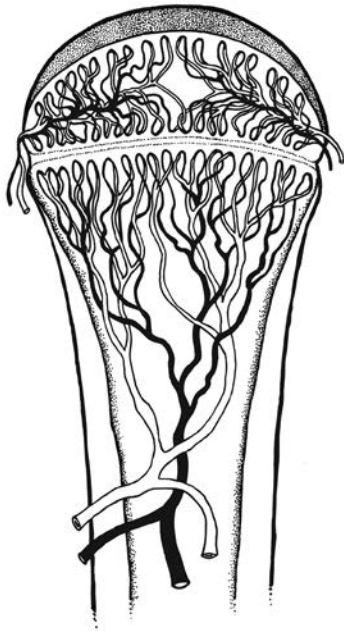
Phase of growth as well as quorum sensing proteins lead to activation of *C. difficile* virulence pathways, and to intoxication.



Inflammation is induced through toxin dependent and independent pathways, leading to osmotic changes and planktonic states for non-*C. difficile* bacteria.

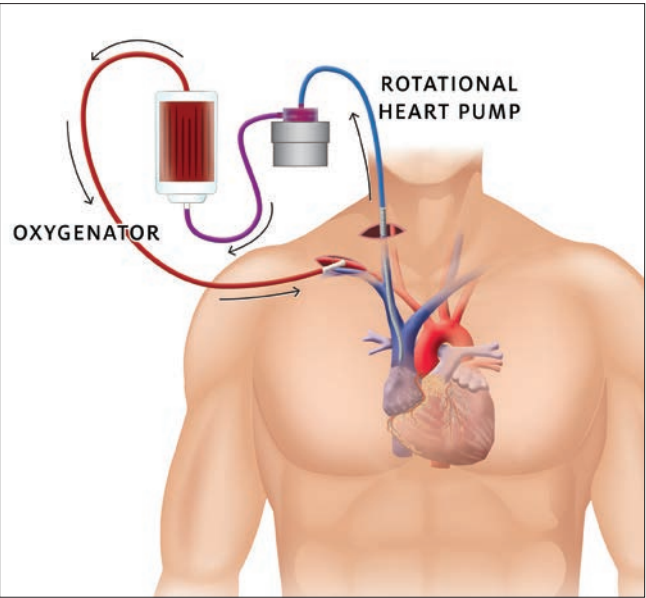
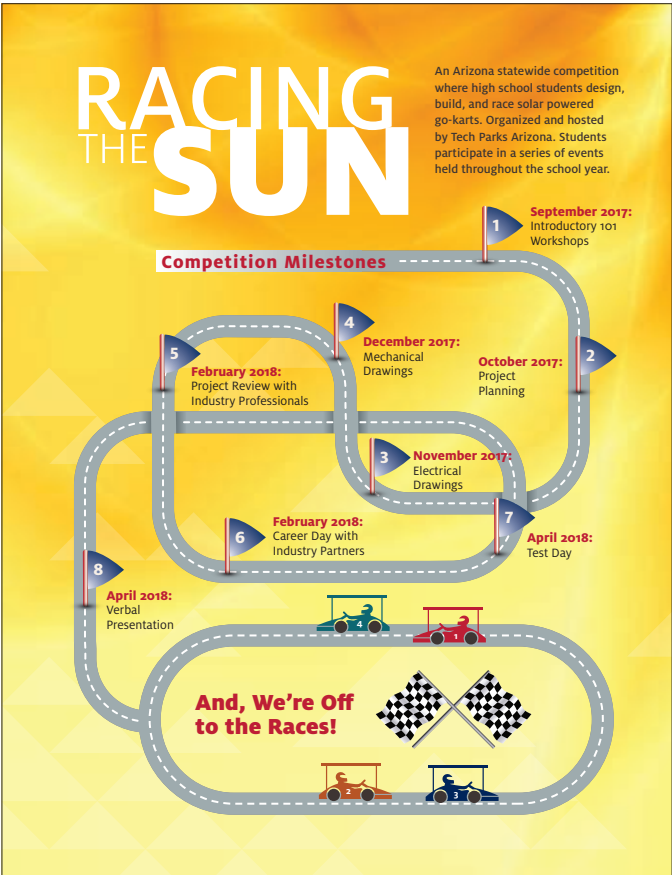
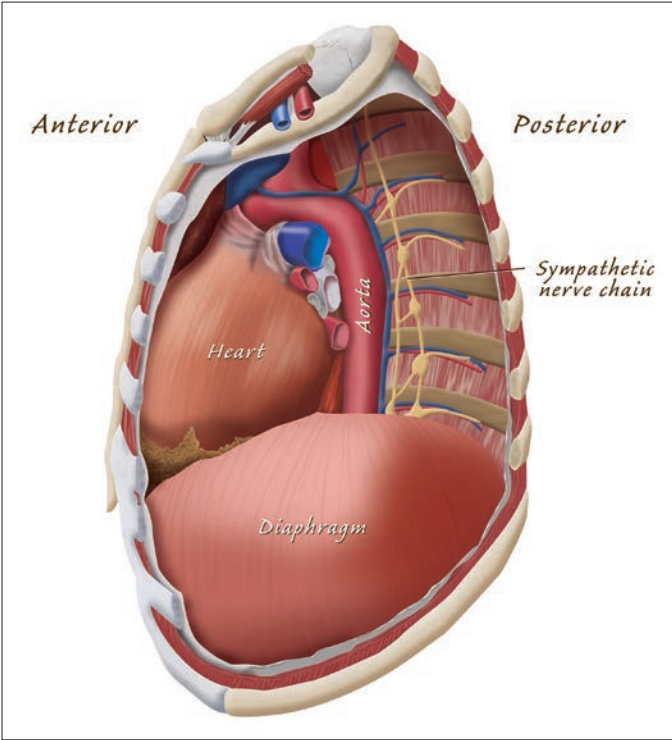


Fungal-associated bacteriome promoting dysbiosis, including through xenobiotic compound production.



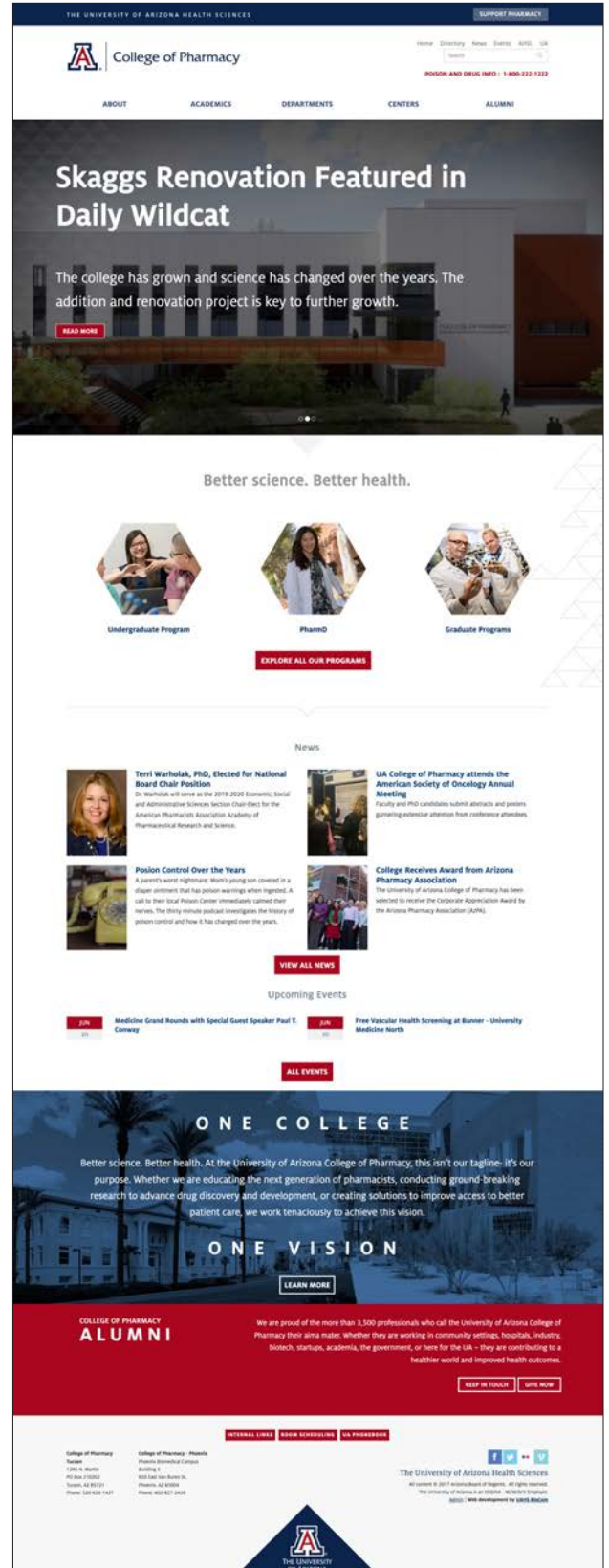
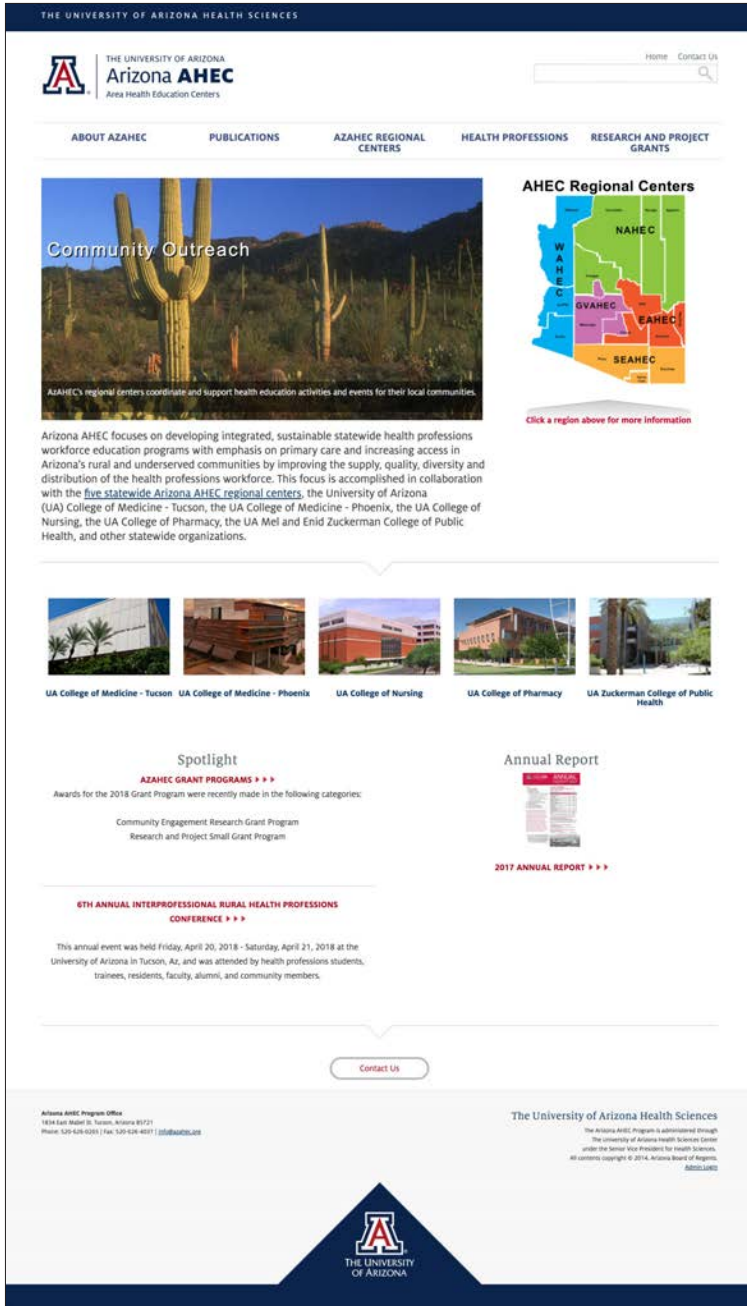


Illustration





Website Design & Development



UAHS Anniversary Awareness Campaign

UAHS BioCommunications collaborated with the Office of Development, colleges and research centers at the University of Arizona Health Sciences celebrating milestone anniversaries in 2017. A branding campaign featuring anniversary icons was created to honor these institutions that – individually and collectively – are building a healthier Arizona. Every day. For everyone.



The University of Arizona Health Sciences

Anniversary website developed with a calendar of events, a timeline featuring milestones from the health sciences colleges and research centers, a solicitation to share a memory and an appeal to give.



University of Arizona
Health Sciences



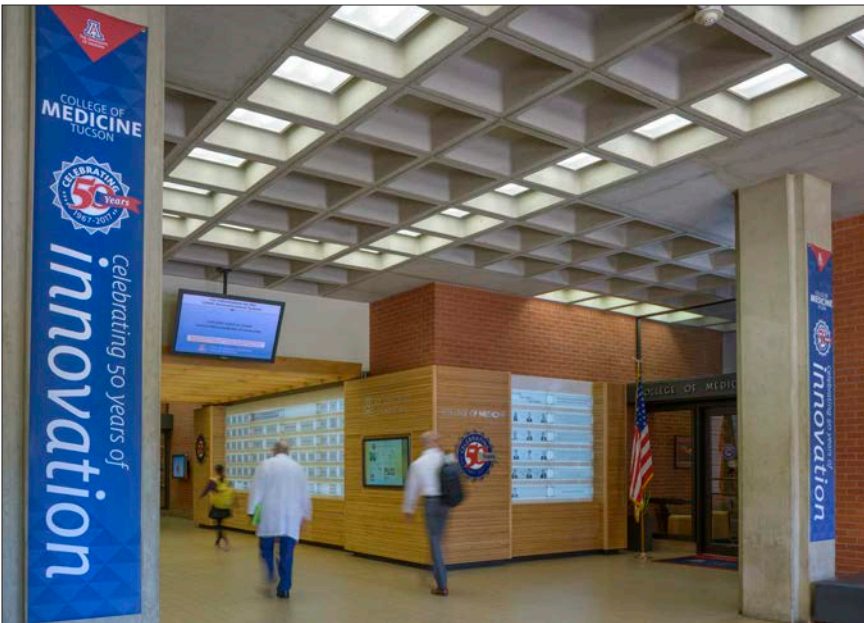
College of Medicine –
Phoenix



Mel & Enid Zuckerman
College of Public Health



College of Medicine –
Tucson



College of Medicine – Tucson celebrating 50 years
 Creation of graphics for exterior and interior building banners,
 3-D signage, powerpoint presentation, podium sign, lapel pin,
 touchscreen graphics and window decals.



College of
Nursing



College of
Pharmacy



Steele Children's
Research Center



Sarver Heart
Center



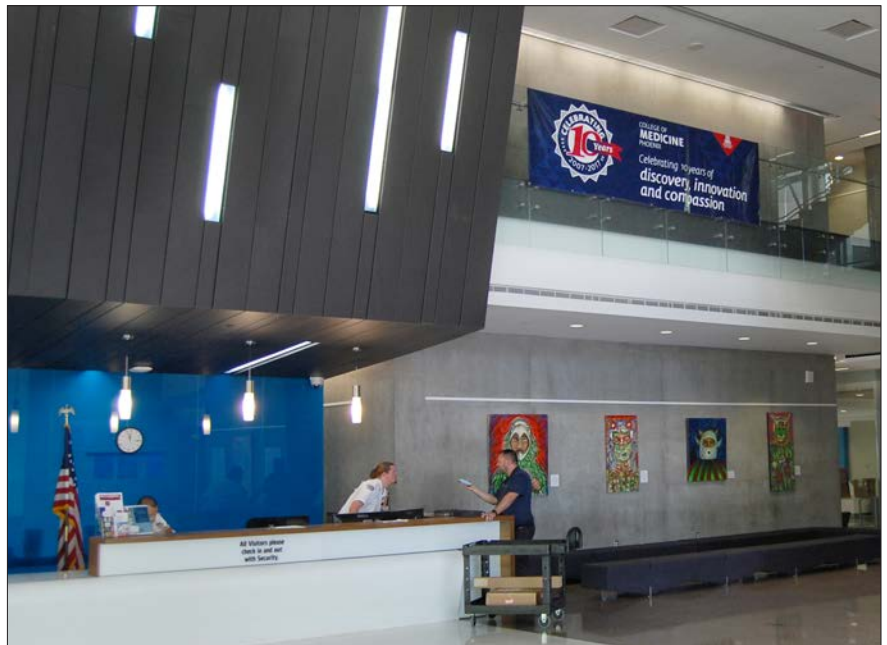
UA Cancer
Center



UAHS Anniversary Awareness Campaign

College of Medicine – Phoenix – celebrating 10 years

Lobby banner

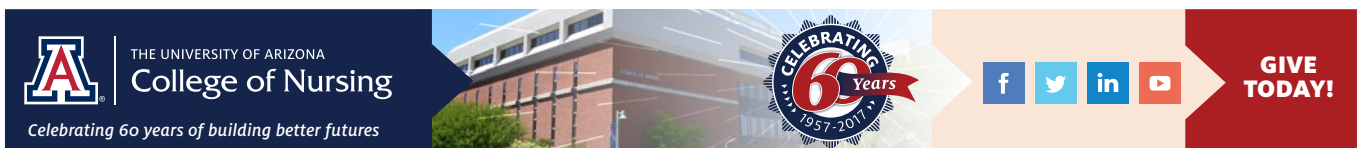


Mel and Enid Zuckerman College of Public Health – celebrating 17 years

Anniversary icon elevator decal

College of Pharmacy – celebrating 70 years

Exterior building banner



College of Nursing – celebrating 60 years

Email footers created with responsive social media and giving links for all units celebrating milestone anniversaries.

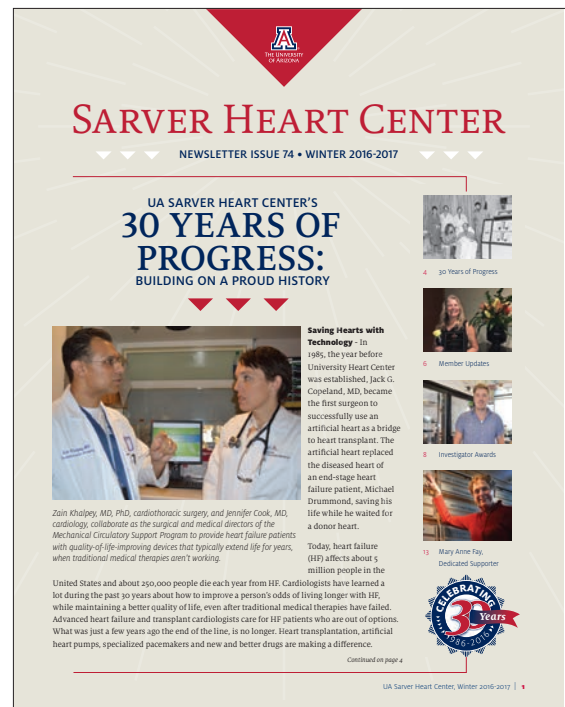
Steele Children's Research Center – celebrating 25 years

Administrative suite entry graphics



UA Cancer Center – celebrating 40 years

Banner displayed at University sporting event



UA Sarver Heart Center – celebrating 30 years

Marketing and print collateral incorporating the anniversary icon.



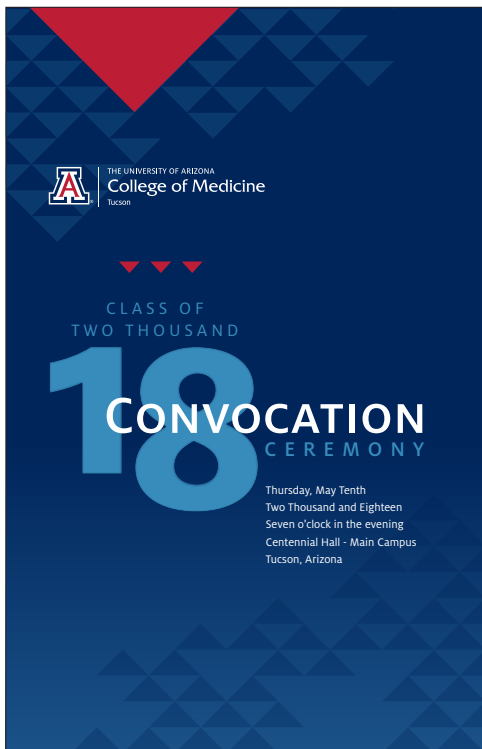
College of Medicine – Tucson Class of 2018 Convocation Ceremony



Group Shots



Event Photography and Candids



Graphic design of ceremony program



Powerpoint Presentation



Live video streaming to **Facebook LIVE** and archived on BioCom streaming server

<https://www.facebook.com/UACOM.Tucson/videos/vb.395362050539775/1708032082606092/?type=2@theater>



All of Us Research Program



Wayfinding



Selfie frames



Table cover





Floor
decals



Vehicle graphics

The UA and Banner Health were awarded part of a \$60 million grant from NIH. BioCom is working with the All of Us marketing and communications team, UAHS Research Office and Wondros, a national ad agency to develop and co-brand print materials, specialty items, website and wayfinding as part of the campaign to enroll one million Americans to participate in this research program to improve the prevention and treatment of disease based on individual differences in lifestyle, environment and genetics.



☐ **Sign me up!** I want to learn more about becoming a **Nurse Champion** for the *All of Us Research Program*.

First Name


Last Name

Email Address

Phone No.



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To join the *All of Us* Research Program at the University of Arizona and Banner Health:

Register online: www.AllofUsAZ.org

Call: 877-268-2684

Print collateral



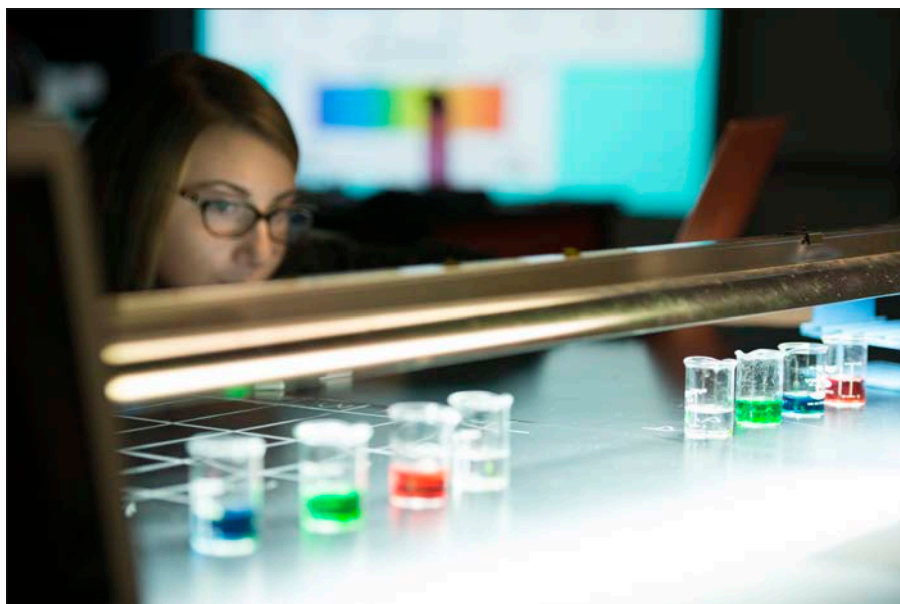
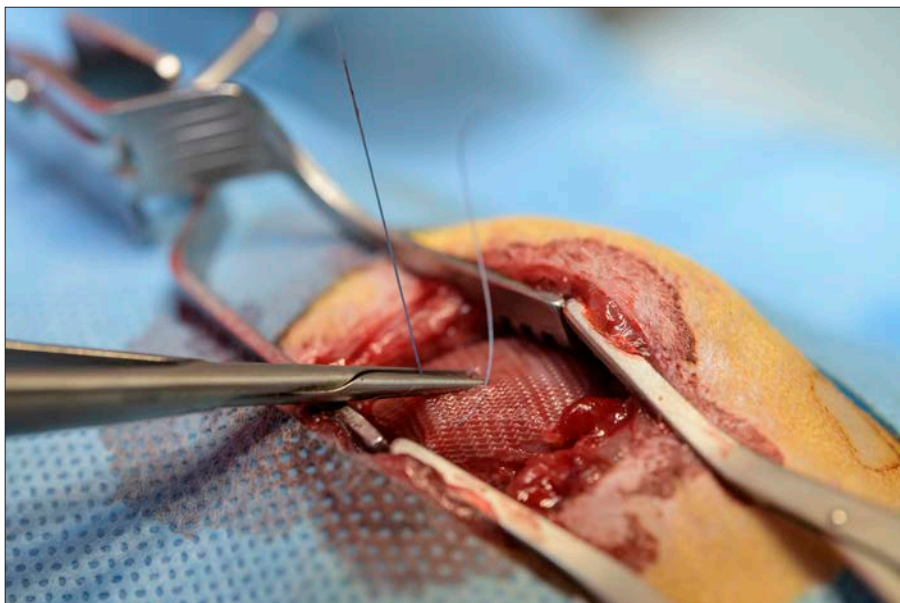
Co-branded brochure and rack

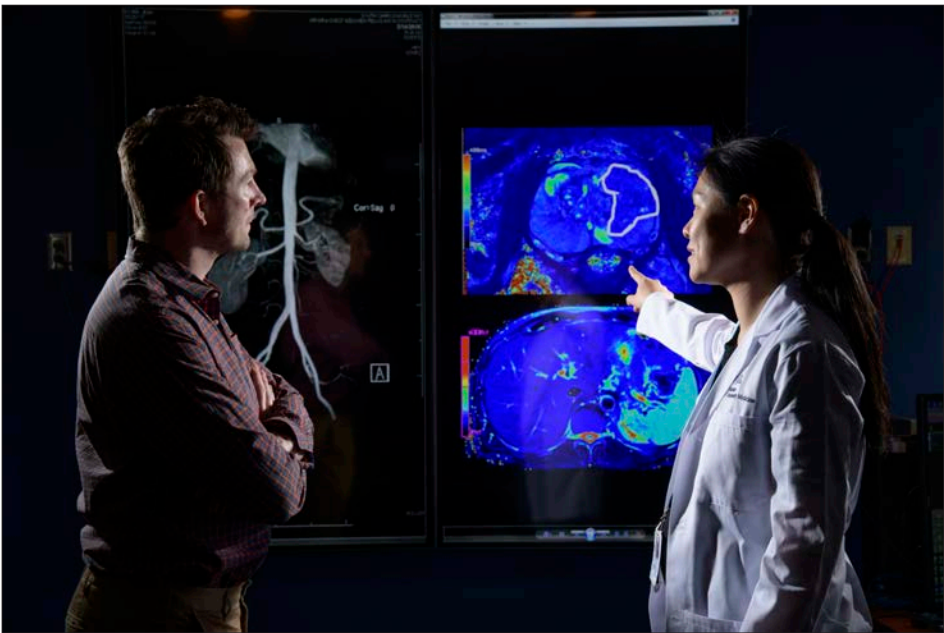
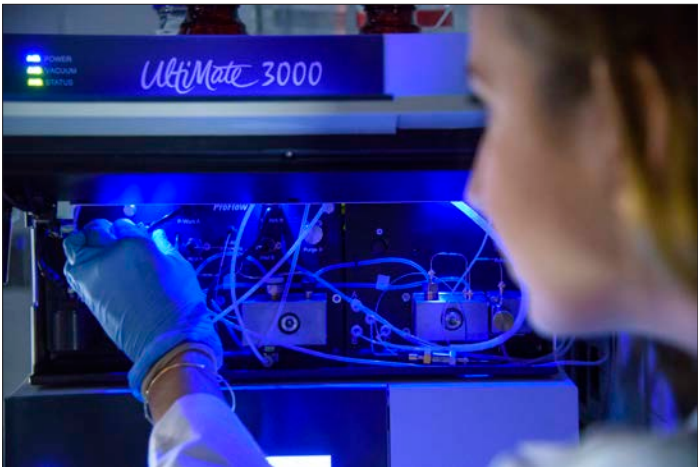
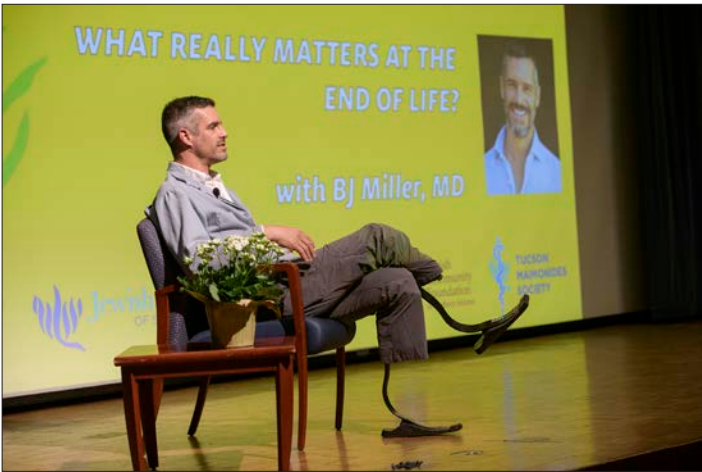


Tent cards in English and Spanish



Photography



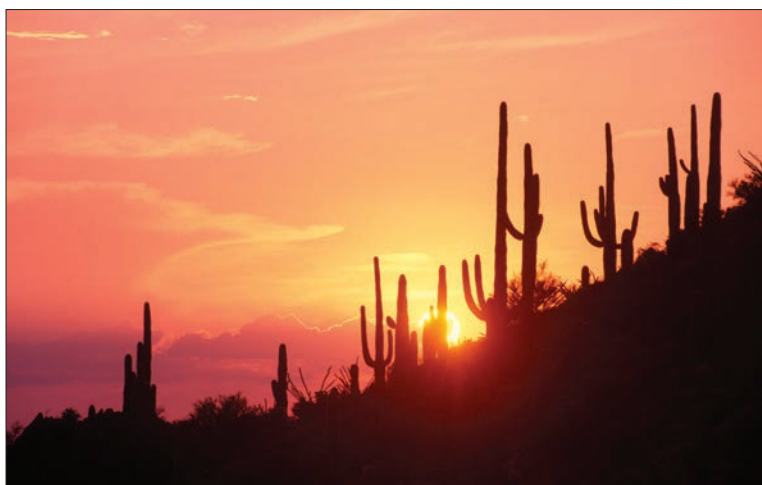
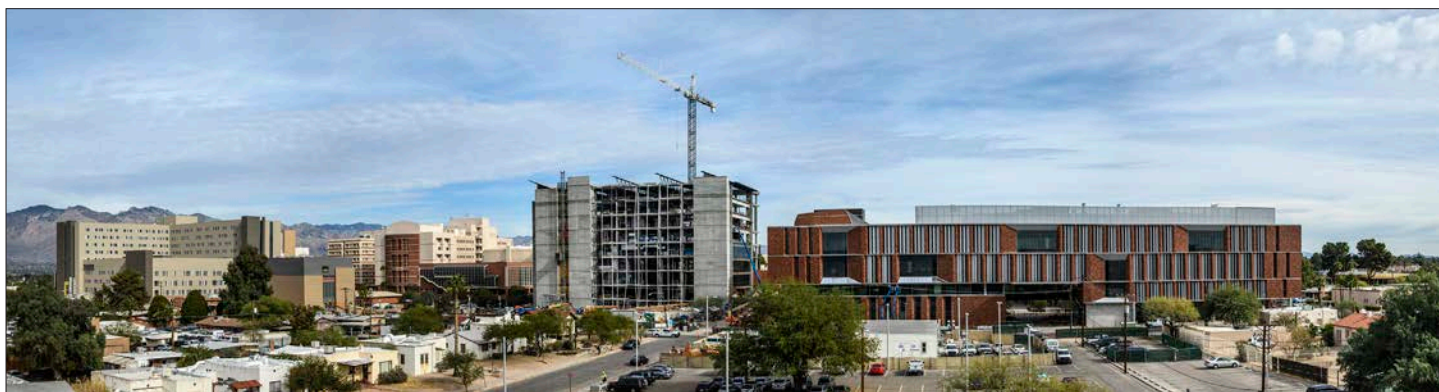




Photography

*The **All of Us** Research Program at UA-Banner Health also requested specific portraiture for cohesion with the national campaign. All individuals were photographed in a three-quarters pose on a consistent background with similar lightening.*







Selected Video Productions



Nephrology Department promotional
<https://vimeo.com/229049596>



Children's Postinfectious Autoimmune Encephalopathy (CPAE) Center of Excellence at the University of Arizona Steele Children's Research Center clinic overview
<https://vimeo.com/256489723>



REACT CPR (Spanish)
<https://vimeo.com/269057608>



UAHS- Together
<https://vimeo.com/240722699>