

# PATHWAYS 2025

Accelerating Discoveries | Fostering Discoverers



**NEXTGEN**  
PRECISION HEALTH

[umsystem.edu/NextGen](https://umsystem.edu/NextGen)

**March 13-14**

The Student Union at UMKC

5100 Cherry St., Ste. 320

Kansas City, MO 64100

# Thursday, March 13

5:00-5:10 Welcoming remarks  
**Dave Arnold, MD** Executive Director  
NextGen Precision Health Initiative

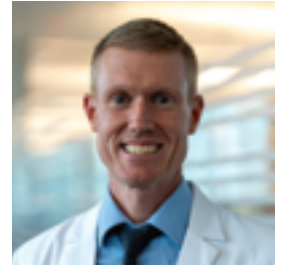
5:10 - 5:30 UMKC's Research Vision  
**Sumeet Dua, PhD** Vice Chancellor for Research  
University of Missouri-Kansas City

5:30 - 6:00 Health Sciences and Academic Visions  
**Alexander Norbash, MD** Dean, UMKC School of Medicine  
**Russell Melchert, PhD** Dean, UMKC School of Pharmacy  
Interim Dean, UMKC School of Dentistry  
**Joy Roberts, JD, RN** Dean, UMKC School of Nursing  
and Health Studies

6:00 - 7:30 Evening reception



**Dave Arnold, MD**  
Executive Director  
NextGen Precision Health Initiative



**Sumeet Dua, PhD**  
Vice Chancellor for Research  
University of Missouri-Kansas City



**Alexander Norbash, MD**  
Dean, School of Medicine  
University of Missouri-Kansas City



**Russell Melchert, PhD**  
Dean, School of Pharmacy  
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**Joy Roberts, JD, RN, FNP-BC**  
Dean, School of Nursing and  
Health Studies  
University of Missouri-Kansas City



# Friday, March 14

- 7:30 - 8:30 Registration and coffee  
8:30 - 8:45 Welcome and housekeeping  
8:45 - 10:00 Faculty Theme Talks - Session A

**Sarah Dallas, PhD** | University of Missouri-Kansas City  
**Joe Stanley, PhD** | Missouri University of Science and Technology  
**Zachary Berndsen, PhD** | University of Missouri-Columbia  
**Carl Bassi, PhD** | University of Missouri-St. Louis  
**Catherine Johnson, PhD** | Missouri University of Science and Technology

- 10:00 - 10:15 Break  
10:15 - 11:15 Poster Session A  
11:15 - 12:15 Lunch and networking  
12:15 - 1:30 Faculty Theme Talks - Session B

**Justin Randall, PhD** | University of Missouri-Kansas City  
**Yue-Wern Huang, PhD** | Missouri University of Science and Technology  
**Jussuf Kaifi, MD, PhD** | University of Missouri-Columbia  
**Sheila Grigsby, PhD, RN, MPH** | University of Missouri-St. Louis  
**Anne Sales, PhD, RN, FAAN** | University of Missouri-Columbia

- 1:30 - 1:45 Break  
1:45 - 2:45 Poster Session B  
2:45 - 3:45 Keynote

**Dennis Ridenour** | President & CEO, BioNexus KC

- 3:45 - 4:00 Poster Presentation Awards and Closing



## KEYNOTE

### Dennis Ridenour

Dennis Ridenour leads BioNexus KC, the coordinating body for the KC region's life sciences research initiatives. In this role, he fosters regional collaboration while working to increase the concentration and capacity for life sciences and healthcare research in the region. His work makes the region more efficient at commercializing technologies being developed locally, improves the health of patients and animals across the region while reducing and eliminating health disparities, and positively impacts the regional economy by leveraging our strengths at the intersection of human and animal health. Mr. Ridenour is strongly committed to the vision of BioNexus KC, that the KC region is a global leader at the nexus of human and animal health benefiting all our citizens and the economy.



President and Chief Executive Officer, BioNexus KC

## MASTER OF CEREMONIES

### David M. Fulk



Director of Philanthropic Giving  
KCUR, Kansas City's NPR Affiliate

David Fulk became an active volunteer with KCUR in 2005 and was named their Volunteer of the Year in 2010. He joined the KCUR staff in 2014 to build a major giving program and serves on the station's Leadership Team. David has been a fundraising professional for more than 30 years with decade-plus stints at KCUR, Truman Medical Center (now University Health) Charitable Foundation and William Jewell College, where he received his undergraduate degree in history. David served as co-interim leader of the UMKC Charitable Foundation in 2022 and helped design and lead the \$120m fundraising effort for UMKC's Healthcare Delivery and Innovation Building.

He has been a longtime community volunteer in Liberty, Mo., where he resides, serving on the boards of the Liberty Symphony, Liberty Parks and Recreation, Liberty Parks Foundation, and Liberty Arts Foundation. Since 2009, David has been the concert host of the Liberty Summer Band and is the elected City Clerk of Liberty. In Kansas City, he's served on the board of the Association of Fundraising Professionals (AFPKC) and currently serves as board secretary of Te Deum. He was recognized in 2024 by the Kansas City Royals as a Buck O'Neil Legacy Seat honoree.



# Faculty Talks | Session A

8:45 a.m. - 10:00 a.m.



## Sarah Dallas, PhD

Curator's Distinguished Professor  
Lee M. and William Lefkowitz Endowed Professor  
Department of Oral and Craniofacial Sciences  
UMKC School of Dentistry

**“Interrogating Bone Cell Biology by Live Cell Imaging”**



## Joe Stanley, PhD

Professor and Associate Chair, Academic Affairs  
Computer Engineering Coordinator, Computer Engineering  
Missouri S&T College of Engineering and Computing

**“Skin Lesion Archive and Annotation for Fusion and Earlier Skin Cancer Detection”**



## Zachary Berndsen, PhD

Assistant Professor of Biochemistry  
MU School of Medicine

**“The Structure, Dynamics, and Receptor Interactions of ApoB100 from Human LDL”**



## Carl Bassi, PhD

Curator's Distinguished Teaching Professor, Director of Research  
UMSL College of Optometry

**“Macular Pigment is More Than Pigment in the Macula”**



## Catherine Johnson, PhD

Robert H. Quenon Associate Professor of Mining & Explosives  
Engineering  
Missouri S&T College of Engineering and Computing

**“Advancing Rigor and Reproducibility in Pre-clinical Traumatic Brain Injury Studies”**

# Faculty Talks | Session B

12:15 p.m. - 1:30 p.m.



## Justin Randall, PhD

Assistant Professor, Biological and Biomedical Systems  
UMKC School of Science and Engineering

**“Developing New Synthetic Methods of Peptide Antibiotic Discovery”**



## Yue-Wern Huang, PhD

Professor, Department of Biological Sciences  
Associate Dean for Research and External Relations  
Missouri S&T College of Arts, Sciences, and Education  
Director, S&T Center for Biomedical Research

**“Aerosol Health: Aerosol and Bioaerosol Behavior and Evolution in Indoor Environments”**



## Jussuf Kaifi, MD, PhD

Margaret Proctor Mulligan Endowed Professor in Cancer  
Research in Surgery and Associate Professor of Surgery  
MU School of Medicine

**“Preclinical Models to Study Lung Cancer Progression with Translational Relevance”**



## Sheila Grigsby, PhD, RN, MPH

Associate Professor, Interim PhD Director, Dean's Fellow for  
Community Engagement and Director of Community-Based  
Clinical Education  
UMSL College of Nursing

**“Community-Based Clinical Education: A Path Forward in Nursing Science and Practice”**



## Anne Sales, PhD, RN, FAAN

Professor, Sinclair School of Nursing and Department of Family  
and Community Medicine, MU School of Medicine  
Associate Dean for Implementation Research and Health Delivery  
Effectiveness, MU School of Medicine

**“Accelerating Uptake of Innovation - The Role of Implementation Science”**

## NextGen Precision Health | PATHWAYS 2025

NextGen Precision Health's PATHWAYS symposium draws on path-breaking work from across the University of Missouri System to celebrate research collaborations with the potential to impact global health.

The agenda promotes a dual mission: accelerating discoveries and fostering discoverers. That means providing networking opportunities for experts across our four universities and giving young researchers a pragmatic approach for connecting to other fields and the translation process. By making each of our contributions accessible and relevant across domains, we can leverage our strengths and ultimately impact quality of life around the world.



PATHWAYS 2024 took place at the State Historical Society of Missouri in Columbia, with nearly 200 researchers from across the University of Missouri System in attendance.

On average in the U.S., it takes **14 years** for a new treatment to make it from the discovery phase to a clinical patient. We believe we can accelerate that time frame if all segments of the translational science pipeline are engaged from the beginning. At the PATHWAYS symposium, research faculty, postdoctoral researchers, and graduate students from a broad range of disciplines will build understanding to lower research barriers and jump start new projects.

## Sponsors

Platinum Level



**Siemens Healthineers** pioneers breakthroughs in healthcare. For everyone. Everywhere. Sustainably.

As a leading medical technology company, **Siemens Healthineers** is committed to improving access to healthcare for underserved communities worldwide and is striving to overcome the most threatening diseases. The company is principally active in the areas of imaging, diagnostics, cancer care and minimally invasive therapies, augmented by digital technology and artificial intelligence.

For more information, visit  
[www.siemens-healthineers.com/en-us](http://www.siemens-healthineers.com/en-us).

Gold Level



Silver Level





[umurl.us/pathways](https://umurl.us/pathways)

### Submit your questions during Q&A

During the faculty talks' Q&A, use the link above to access the Mentimeter tool and submit questions.  
8:45 - 10:00 a.m. / 12:15 - 1:30 p.m.

### Vote for your favorite posters

During the poster sessions, use the link above to vote for your top three posters in each session. Four winners will receive \$1,000 travel awards, presented at 3:45 p.m. (Must be present to win.)  
10:15 - 11:15 a.m. / 1:45 - 2:45 p.m.

### Send us your feedback

Help us improve the Pathways symposium! Starting at 3:30 p.m., use the QR code to fill out our survey.

- 1 Buffet table
- 2 Check in
- 3 Dining tables
- 4 Elevator
- 5 Posters
- 6 Restrooms
- 7 Rooftop
- 8 Stairs
- S National Swine Testing Center Poster

