

Heartland Workshop on Heart Sounds and AI



Heartland Workshop on Heart Sounds and AI

Welcome to the 1st Heartland Workshop on Heart Sounds and AI

The Future of Heart Sounds for Diagnosing Heart Diseases in the Age of AI

June 20-21, 2024 / University of Nebraska Medical Center, Omaha

Sponsored by the University of Nebraska Medical Center and the UNL College of Engineering

This workshop will provide an opportunity for researchers and practitioners in heart sounds and artificial intelligence to learn and collaborate on using new technologies and machine learning in their field of research or practice. This workshop is designed for physicians in the specialty of cardiology, scientists, academic researchers, hardware and software engineers, and federal government funding agencies.



Chairs: *Edward O'Leary, M.D., M.B.A., MHCM / Hamid Vakilzadian, Ph.D. / Hani Haider, Ph.D.*

[UNMC Campus Map](#)

Registration / Cost

The deadline to register was Monday, June 17, 2024. If interested in attending, email missy.edwards@unmc.edu.

- General participants: \$100
- University of Nebraska students and employees: \$20

Cancellation/Refund Policy: If you need to cancel your registration, please email conted@unmc.edu no later than June 17, 2024. No refunds will be given after this date.

Buildings / Parking

- **Thursday, June 20:** *Michael F. Sorrell Center for Health Science Education – Room 1005, 619 South 42nd Street* [Map-Sorrell](#)
- **Friday, June 21:** *Fred & Pamela Buffett Cancer Center – Room 0.12.103, 505 S 45th Street* [Map-BCC](#)

Program

Download the [Workshop PDF](#).

Thursday, June 20, 2024

Tour / Pre-Workshop AI Tutorial / Reception (optional)

TIME	EVENT / LOCATION: UNMC Michael F. Sorrell Center for Health Science Education – Room 1005, 619 S 42nd Street, Omaha
2:00 PM	Registration
2:30 PM	Tour of Davis Global Center
3:15 PM	Tutorial: How Can AI Innovations Drive Effective Health Applications? - M.R. Hasan, Ph.D., Assistant Professor of Electrical and Computer Engineering, UNL College of Engineering <i>This tutorial will provide introductory information on AI and its applications in Health Sciences.</i>
5:15 - 6:15 PM	Reception / Networking

Friday, June 21

TIME	EVENT / LOCATION: Fred & Pamela Buffett Cancer Center – Room 0.12.103, 505 S 45th Street, Omaha
7:30 AM	Breakfast / Registration
8:00 AM	Opening Remarks Edward O'Leary, M.D., M.B.A., M.H.C.M., Associate Professor, Division of Cardiovascular Medicine; Associate Medical Director, Cardiovascular Catheterization Laboratory; Associate Program Director, Interventional Cardiology Fellows, UNMC Hani Haider, Ph.D., Professor; Director, Orthopaedic Biomechanics and Advanced Surgical Technologies Laboratory, Department of Orthopaedic Surgery and Rehabilitation, UNMC Kenneth W. Bayles, Ph.D., Professor, Department of Pathology, Microbiology, and Immunology; Vice Chancellor for Research, UNMC
SESSION I	COMPUTER-AIDED CARDIOLOGY - Moderator: Hamid Vakilzadian, Ph.D.
8:15 AM	Computer-Aided Cardiology - Ward A. Chambers, M.D., Professor, Division of Cardiovascular Medicine, Department of Internal Medicine, UNMC
8:50 AM	Heart Disease and AI Ayesha Azmeen, M.B.B.S., Third Year Fellow, Division of Cardiovascular Medicine, Department of Internal Medicine, UNMC Shine Bedi, Graduate Student, Computer Science, UNL College of Engineering
9:25 AM	Break / Networking
SESSION II	HEART SOUNDS AND AI - Moderator: Edward O'Leary, M.D., M.B.A., M.H.C.M.
9:40 AM	History of Heart Sounds and the Search for Patterns for Disease Diagnosis - Daniel H. Mathers, M.D., Professor, Division of Cardiovascular Medicine, Department of Internal Medicine, UNMC
10:15 AM	Machine Learning Models/Analysis for Heart Disease Detection - Hamid Vakilzadian, Ph.D., Professor, Department of Electrical and Computer Engineering, UNL College of Engineering
10:50 AM	Challenges of Integration of Automated Heart Sound Analysis into a Health Care System Like Nebraska - John R. Windle, M.D., Holland Distinguished Chair in Cardiovascular Sciences; Professor, Division of Cardiovascular Medicine, Department of Internal Medicine, UNMC
11:25 AM	National Science Foundation (NSF) Policy in AI and its Applications in Cardiology/Health Sciences - Wendy J. Nilsen, Ph.D., National Science Foundation Deputy Division Director
12:00 PM	Lunch / Networking
SESSION III	FUTURE RESEARCH OPPORTUNITIES AND AREAS OF UNMET NEED - Moderator: Hani Haider, Ph.D.
12:45 PM	NHLBI Training and Career Development Opportunities for Early Career Investigators* - Siddharth Shenoy, Ph.D., Biomedical Engineer, Program Director, Digital Health & Informatics Technologies Program; Acute and Infectious Lung Disease Branch, Division of Lung Diseases, National Heart Lung Blood Institute, National Institutes of Health
1:20 PM	Funding Opportunities in Health Sciences and AI* - Edwin Lomotan, M.D., Deputy Director for the Center's Division of Digital Healthcare Research, AHRQ
1:55 PM	Funding Opportunities in Cardiology* - Sylvia Spengler, Ph.D., Program Director, Division of Information and Intelligent Systems, National Science Foundation
2:30 PM	Plenary Discussion*
3:30 PM	Break / Networking
SESSION IV	STATE-OF-THE-ART AI PRODUCTS - Moderator: Edward O'Leary, M.D., M.B.A., M.H.C.M.
3:45 PM	State of AI in Commercial Products* - Subbu Venkatraman, Ph.D., Chief Technology Officer, Eko Health, Inc.
4:45 - 5:00 PM	Closing Remarks / Adjourn



In support of improving patient care, the University of Nebraska Medical Center is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCM), the Accreditation Council for Pharmacy Education (ACPE) and the American Nurses Credentialing Center (ANCC) to provide continuing education for the healthcare team.

The University of Nebraska Medical Center designates this live activity for a maximum of 5.5 *AMA PRA Category 1 Credits*[™]. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

* No credits will be provided for these sessions.

This workshop is supported in part by NU Seed Grant #21-1125-6011.

Workshop Contact

Missy Edwards, Educational Projects Coordinator
Center for Continuing Education, University of Nebraska Medical Center
402-559-5145 | missy.edwards@unmc.edu



City Campus
Kiewit Hall A641
1700 Vine Street
Lincoln, NE 68588
Phone: (402) 472-3181
Fax: (402) 472-7792

Scott Campus
301 Peter Kiewit Institute
1110 South 67th Street
Omaha, Nebraska 68182
Phone: (402) 554-6009

Email: angfrontdesk2@unl.edu



UNL web framework and quality assurance provided by the [Web Developer Network](#) · [QA Test](#)

CAMPUS LINKS

[Directory](#)
[Employment](#)
[Events](#)
[Libraries](#)
[Maps](#)
[News](#)
[Office of the Chancellor](#)
[Report an Incident](#)
[UNL Report](#)

POLICIES & REPORTS

[Accessibility Statement](#)
[Institutional Equity and Compliance](#)
[Notice of Nondiscrimination](#)
[Privacy Policy](#)
[Safety at Nebraska](#)
[Student Information Disclosures](#)