

# Heartland Workshop on Heart Sounds and Al

Thursday, June 20

2:00 p.m. Registration

2:30 p.m. Tour of Davis Global Center

3:15 p.m. Al Tutorial

The tutorial will provide introductory information on AI and its applications in Health Sciences

M.R. Hasan, PhD

5:15 p.m. Reception / Networking

6:15 p.m. Adjourn

Friday, June 21

7:30 a.m. Breakfast / Registration 8:00 a.m. Opening Remarks

Edward O'Leary, MD, MBA, MHCM; Hani Haider, PhD; Kenneth W. Bayles, PhD

**Session I: Computer-Aided Cardiology** 

Moderator: Hamid Vakilzadian, PhD

8:15 a.m. Computer-Aided Cardiology

Ward A. Chambers, MD

8:50 a.m. Heart Disease and Al

Ayesha Azmeen, MBBS and Shine Bedi

9:25 a.m. Break / Networking

**Session II: Heart Sounds and AI** 

Moderator: Edward O'Leary, MD, MBA, MHCM

9:40 a.m. History of Heart Sounds and the Search for Patterns for Disease Diagnosis

Daniel H. Mathers, MD

10:15 a.m. Machine Learning Models/Analysis for Heart Disease Detection

Hamid Vakilzadian, PhD

10:50 a.m. Challenges of Integration of Automated Heart Sound Analysis Into a Health

Care System Like Nebraska

John R. Windle, MD

11:25 a.m. National Science Foundation (NSF) Policy in AI and its Applications in

Cardiology/Health Sciences

Wendy J. Nilsen, PhD

12:00 p.m. Lunch / Networking

Session III: Future Research Opportunities and Areas of Unmet Need

Moderator: Hani Haider, PhD

12:45 p.m. NHLBI Training and Career Development Opportunities for Early Career

Investigators\*

Siddharth Shenoy, PhD

1:20 p.m. Funding Opportunities in Health Sciences and Al\*

Edwin Lomotan, MD

1:55 p.m. Funding Opportunities in Cardiology and Al\*

Sylvia Spengler, PhD

2:30 p.m. Plenary Discussion\* 3:30 p.m. Break / Networking

Session IV: State-of-the-Art Al Products

Moderator: Edward O'Leary, MD, MBA, MHCM

3:45 p.m. State of AI in Commercial Products\*

Subbu Venkatraman, PhD

4:45 p.m. Closing Remarks

5:00 p.m. Adjourn

## **WORKSHOP DIRECTORS**

#### Hani Haider, PhD

Professor; Director, Orthopaedic Biomechanics and Advanced Surgical Technologies Laboratory, Department of Orthopaedic Surgery and Rehabilitation, UNMC

#### Edward O'Leary, MD, MBA, MHCM

Associate Professor, Division of Cardiovascular Medicine; Associate Medical Director, Cardiovascular Catheterization Laboratory; Associate Program Director, Interventional Cardiology Fellows, UNMC

### Hamid Vakilzadian, PhD

Professor, Department of Electrical & Computer Engineering, College of Engineering, UNL

#### **WORKSHOP FACULTY**

#### Ayesha Azmeen, MBBS

Third Year Fellow, Division of Cardiovascular Medicine, Department of Internal Medicine, UNMC

#### Kenneth W. Bayles, PhD

Professor, Department of Pathology, Microbiology, and Immunology; Vice Chancellor for Research, UNMC

#### Shine Bedi

Graduate Student, Computer Science, College of Engineering, UNL

#### Ward A. Chambers, MD

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#### M.R. Hasan, PhD

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# Siddharth Shenoy, PhD

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Program Director, Division of Information and Intelligent Systems (IIS), National Science Foundation (NSF), Alexandria, VA

# Subbu Venkatraman, PhD

Chief Technology Officer, Eko Health, Inc. San Francisco, CA

#### John R. Windle, MD

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<sup>\*</sup>No credit will be provided for this session.