AI FOR OVERCOMING GLOBAL DISPARITIES IN CANCER CARE

Memorial Sloan Kettering Cancer Center

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Associate Attending, Memorial Sloan Kettering Cancer Center (MSKCC)
Associate Professor, Weill Cornell Medicine
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Introduction

PAIGE

Founder & Chief Scientific Officer

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Disclosure

April 26, 2020

12:00 – 1:00pm EST *Live Q&A Session I*

4:00 – 5:00pm EST *Poster Session*

5:00 – 6:00pm EST *Live Q&A Session II*

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Special Sessions

Meta Learning for Limited Datasets

Sergey Levine, PhD

Assistant Professor, UC Berkeley, EECS

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Keynote

Addressing South Africa's Cancer Reporting Delay Using Machine Learning

Waheeda Banu Saib
Research Scientist, IBM Research, Africa

Challenges and Opportunities for AI in Radiology

Michael G. Kawooya, PhD
Radiologist, Researcher, and Director of ECUREI

A Multimodal Imaging System for Cervical Cancer Prediction

David Brenes, PhD Candidate
Rebecca Richards-Kortum's Optical Spectroscopy & Imaging Laboratory, Rice University

AI for Cancer Diagnosis in Resource Deprived Areas

Yuchun Ding, PhD
Research Associate, Newcastle University

Deep Learning in Digital Pathology

Amit Sethi, PhD
Associate Professor, Indian Institute of Technology, Bombay

Application of AI and Machine Learning in the Development of Point-of-Care Diagnostics Devices in Africa

Oluwatoyin P. Popoola, PhD
University of Lagos, Nigeria

Disparities in Cancer Care

T. Peter Kingham, MD, FACS (Moderator)
Director, Global Cancer Disparity Initiatives
Co-Founder & President, Surgeons Overseas (SOS)
Associate Attending, Department of Surgery, Memorial Sloan-Kettering Cancer Center

Marcia Edelweiss, MD
Associate Attending Pathologist, Department of Pathology, Memorial Sloan-Kettering Cancer Center

Peter Ntiamoah, PhD
Surgical Pathology Manager, Department of Pathology, Memorial Sloan-Kettering Cancer Center

Olusegun Isaac Alatise, MD, MB.ChB, M.Sc, FWACS, FMCS
Department of Surgery, Obafemi Awolowo University

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Schedule

Johan Lundin, MD, PhD

Research Director, FIMM -Institute for Molecular Medicine Finland, University of Helsinki

Professor, Department of Public Health Sciences, Karolinska Institutet, Stockholm

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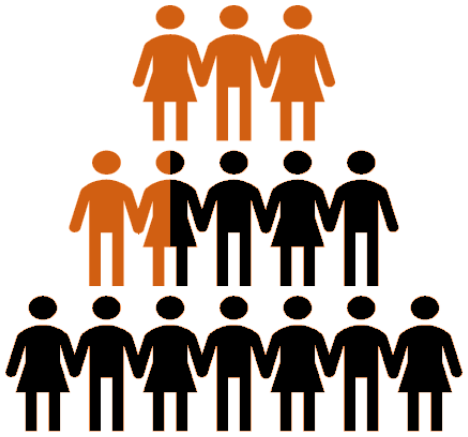
Closing Remarks

Background

- Cancer is the second leading cause of death globally
- In 2018, cancer was responsible for an estimated 9.6 million deaths
- 70% of deaths from cancer occur in low- and middle-income countries (LMIC).



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Leading factors for high cancer mortality

- Accessibility
- Public knowledge of common symptoms
- Screening Tools
- Specialized cancer care facilities

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The potential of representation learning approaches

Learn from different modalities of data to:

- Increase access to healthcare
- Provide diagnostic/screening tools in hard-to-reach areas
- Guide better care at a lower cost, and
- Offer guidance to healthcare workers in the absence of trained medical personnel

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Workshop Aims

(1) Assess challenges in global cancer care

(2) Highlight current AI solutions

(3) Facilitate impact driven discourse between clinicians and machine learning experts

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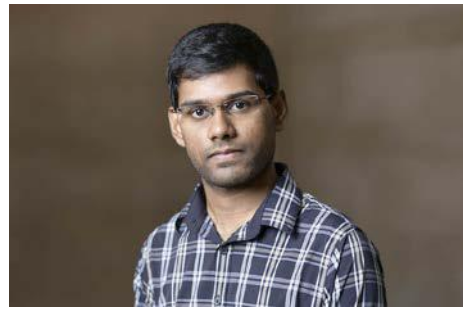
Organizing Committee

Hassan Muhammad
PhD Candidate,
Weill Cornell Medicine

Dig Vijay Kumar Yarlagadda, Msc
Machine Learning Engineer,
Memorial Sloan Kettering
Cancer Center (MSKCC)



Christina M. Virgo, Esq.
Project Portfolio Manager,
Memorial Sloan Kettering
Cancer Center (MSKCC)

Gabriele Campanella, Msc
PhD Candidate,
Weill Cornell Medicine (WCM)

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Workshop Chairs

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Department of Pathology

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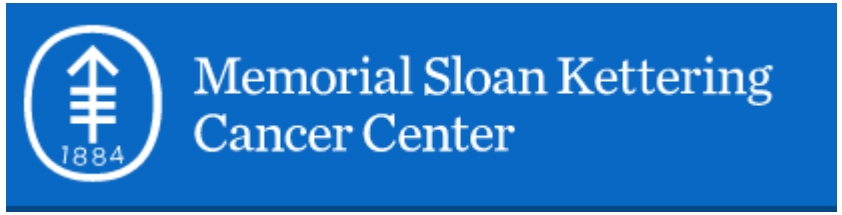

Thank you