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Maryellen L. Giger Heather M. Whitney Karen Drukker Hui Li Editors

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Introduction

The 17th International Workshop on Breast Imaging (IWBI 2024) took place 9–12 June 2024 in Chicago, IL, USA, hosted by the University of Chicago and held at the Rubenstein Forum on the University of Chicago campus.

The International Workshop on Breast Imaging (IWBI, formerly the International Workshop on Digital Mammography IWDM), continues as a platform to present the latest physical-technical developments, novel breast imaging technologies (including not only digital mammography and tomosynthesis, but also breast CT, molecular MR, ultrasound, optical and imaging), computer-aided detection/diagnosis and artificial intelligence, virtual clinical trials, and quality control and clinical experiences. IWBI has for many years brought together researchers, clinicians, and representatives from industry and government, who are jointly committed to developing technology and other image-based tools for the early detection and subsequent management of breast cancer.

The University of Chicago meeting was the 17th edition of the biennial IWBI workshop with the previous meeting taking place in Leuven, Belgium in 2022. The conference series was initiated at a 1993 meeting of SPIE in San Jose, with subsequent meetings hosted every two years by researchers around the world. Subsequent meetings have been held in York (1994), Chicago (1996), Nijmegen (1998), Toronto (2000), Bremen (2002), Durham (2004), Manchester (2006), Tucson (2008), Girona (2010), Philadelphia (2012), Gifu (2014), Malmö (2016), Atlanta (2018), Leuven-remote (2020), and Leuven (2022). The University of Chicago was thrilled to host this conference for the second time, with the last time being in 1996.

The 2024 workshop featured several renowned keynote and invited speakers along with proffered oral and poster presentations (reviewed by the IWBI scientific committee) aiming to inspire clinically relevant research and development in breast imaging, with the ultimate goal of improving patient care and outcomes. The workshop also featured vendor exhibits and engaged time for discussion and networking. The event included a Sunday welcome reception, tours of the University of Chicago and its medical imaging labs, and the traditional IWBI Gala dinner on Tuesday evening. Keynotes included thought-proving talks and fireside chats on "State of Breast Cancer Screening, including realities and limitations worldwide" by Olufunmilayo Olopade, MD, FACCR, OON, University of Chicago, and Benjamin O. Anderson, MD, FACS, University of Washington. Additional keynotes through the conference included:

"Multi-energy and Multi-modality Breast Cancer Imaging" by John A. Shepherd, PhD, University of Hawaii Cancer Center

"The Future of Molecular Imaging/Theranostics in Breast Cancer" by Christine E. Edmonds, MD, Hospital of the University of Pennsylvania

"A breast radiologist's perspective on AI - from experimental studies to randomized trials" by Kristina Lång, MD, PhD, Lund University

IWBI 2024 was funded by the Department of Radiology and the Committee on Medical Physics of the University of Chicago along with sponsorship from various scientific organizations and industry.

Many thanks to the members of the Scientific Committee and the Organizing Committee, as well as Meetings Achievements and SPIE Publishing for handling the logistics of the conference and the abstract review/proceedings, respectively.

We look forward to seeing everyone again in 2026.

Maryellen L. Giger Heather M. Whitney Karen Drukker Hui Li