

# May 24, Eliot Siegel and Brad Erickson, Will a Computer Replace Radiologists and What Should We Do About It



This session will address the role of computer-aided diagnosis and machine learning in the practice of radiology. The debate format will address the question of whether computers will replace radiologists in 20 years. The session will include information on state-of-the-art machine learning methods, computer-aided diagnosis results, and prognostications on these tools. Impediments to computers replacing radiologists will also be described.

[Session details...](#)

## BIOS:

**Dr. Eliot Siegel** is Professor and Vice Chair of Research Information Systems at the University of Maryland School of Medicine, Department of Diagnostic Radiology, as well as Chief of Radiology and Nuclear Medicine for the Veterans Affairs Maryland Healthcare System, both in Baltimore, Maryland. He has adjunct appointments as Professor of Bioengineering at the University of Maryland College Park and as Professor of Computer Science at the University of Maryland Baltimore County campus. Dr. Siegel has also served as imaging informatics consultant to the National Cancer Institute.

Under his guidance, the VA Maryland Healthcare System became the first filmless healthcare enterprise in the United States. He has written over 300 articles and book chapters about PACS (Picture Archiving and Communication Systems) and digital imaging, and has edited numerous books on the topic, including Filmless Radiology and Security Issues in the Digital Medical Enterprise. He has made more than 1,000 presentations throughout the world on a broad range of topics involving the use of computers in medicine.

Dr. Siegel has won numerous teaching awards at the University of Maryland including medical school mentor of the year. He has been named as overall Radiology Researcher of the Year by his peers and separately as Educator of the year. Dr. Siegel has also been selected by the editorial board of Medical Imaging as one of the top radiologists in the US on multiple occasions.

Eliot served as "lead" for imaging for the NCI's caBIG project for several years. He was overall symposium chairman for the Society of Photo-optical and Industrial Engineers (SPIE) Medical Imaging Meeting for three years, served as chair of Publications for the Society of Computer Applications in Radiology (SIIM) and has been honored as a fellow in that organization and has served multiple terms on the board of directors for SIIM. He served as chairman of the RSNA's Medical Imaging Resource Committee. Dr. Siegel also worked with the IBM "Jeopardy" team to help "educate" the "Dr. Watson" software in the field of medicine. His areas of interest and responsibility at both the local and national levels include digital imaging and PACS, telemedicine, the electronic medical record, and informatics and artificial intelligence in medicine.

**Dr. Brad Erickson** received his MD and PhD degrees from Mayo Medical & Graduate School and then did his residency in diagnostic radiology and Neuroradiology fellowship at Mayo Clinic. He went on staff at Mayo Clinic, and was heavily involved in administrative responsibilities implementing a filmless department and then a paperless practice and EMR, including being the Vice Chair for IT at Mayo. More recently, he has refocused on imaging informatics research, receiving NIH grants for brain cancer, multiple sclerosis, and polycystic kidney disease. He is a recognized world expert on the application of deep learning to medical images. He was the founding Chair of the Division of Imaging Informatics, and is currently the Associate Chair for Research in Radiology.

## SUMMARY:

**Topic:** Will a Computer Replace Radiologists and What Should We Do About It?

**Speakers:** Eliot Siegel, M.D., and Brad Erickson, M.D., Ph.D.

**Date:** Wednesday, May 24, 2017

**Time:** 11 AM – 12 PM ET

You are invited to listen to Drs. Siegel and Erickson's presentation in the NCI Shady Grove Building on Medical Center Drive or via WebEx.

**Presentation:** A screen cast of the presentation will be available for viewing after the event on the [NCI CBIIT Speaker Series YouTube Playlist](#) 

## About the NCI CBIIT Speaker Series:

The National Cancer Institute (NCI) Center for Biomedical Informatics and Information Technology (CBIIT) Speaker Series presents talks from innovators in the research and informatics communities. The biweekly presentations allow thought leaders to share their work and discuss trends across a diverse set of domains and interests. The goals of the Speaker Series are: to share leading edge research; to inform the community of new tools, trends, and ideas; to inspire innovation; and to provide a forum from which new collaborations can begin. For additional information, including past speaker series presentations, visit the [CBIIT Speaker Series page](#).

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