# J. Anthony Seibert, Ph.D.

**Clinical Interests**

Dr. Seibert's role at the clinical level involves acceptance testing and quality control for radiological imaging equipment used in the departments of radiology, surgery, medicine and other sites at UC Davis Medical Center and UC Davis Health System.

An expert in digital radiography, Dr. Seibert specializes in using digital techniques and quantitative applications for digital x-ray fluorography, projection imaging, mammography, computed tomography and ultrasound/magnetic resonance imaging. He also contributes to the department's implementation of electronic imaging, informatics and image-processing capabilities for the UC Davis Health System.

As Associate Chair of Informatics, Dr. Seibert assists in writing specifications for new equipment, determines shielding specifications for x-ray room installations to protect patients and staff, trains physicians, radiology residents and graduate students in diagnostic imaging physics, and provides dosimetry estimates for radiological examinations.

He is co-author, along with other faculty in the department, of a popular physics text, *The Essential Physics of Medical Imaging*, and is extensively involved in physics education and training. On the national scene, Dr. Seibert takes an active role in continuing professional development and education. He is the President of the American Association of Physicists in Medicine and will be the Chairman of the Board in 2012.

Activities with the American College of Radiology include service on the Commission on Medical Physics to develop guidelines and technical standards and as an item writer for the in-service exam. Dr. Seibert currently serves on the editorial board for the journal Radiology.In terms of service to certification boards, he is active within the American Board of Radiology and writes questions for the diagnostic radiological physics exam and maintenance of certification efforts, and is a trustee of the American Board of Imaging Informatics.

**Title** Professor

**Specialty** Medical Physics, Radiology

**Department** Radiology

**Division** Radiology Physics

**Education** Ph.D., UC Irvine, Irvine, California, 1983
B.S., UC Irvine, Irvine, California, 1976

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# J. Anthony Seibert, Ph.D.

B.A., UC Irvine, Irvine, California, 1977
M.S., UC Irvine, Irvine, California, 1981

**Board Certifications**

American Board of Radiology, Diagnostic Radiology, 1986
American Board of Radiology, Therapeutic Radiological Physics, 1986

**Professional Memberships**

American Association of Physicists in Medicine
American College of Radiology
Radiological Society of North America
Society for Imaging Informatics in Medicine
The Institute of Electrical and Electronics Engineers
The International Society for Optical Engineering (SPIE)

**Select Recent Publications**

Seibert JA, Morin RL. The standardized exposure index for digital radiography: an opportunity for optimization of radiation dose to the pediatric population. ,em>Pediatr Radiol. 2011 May;41(5): 573-81. Epub 2011 Apr 14.

Seibert JA. Advances in computed radiography: dual-side readout. J Am Coll Radiol. 2010;7(2): 154-7.

Cody DD, Kim HJ, Cagnon CH, Larke FJ, McNitt-Gray MM, Kruger RL, Flynn MJ, Seibert JA, Judy PF, Wu X. Normalized CT dose index of the CT scanners used in the National Lung Screening Trial. AJR Am J Roentgenol. 2010 Jun;194(6):1539-46.

Hevezi JM, Seibert JA, Brateman L. Diagnostic medical physics procedures carrying reimbursement. J Am Coll Radiol. 2009 Nov;6(11):804-5.

Williams MB, Raghunathan P, More MJ, Seibert JA, et al. Optimization of exposure parameters in full field digital mammography. *Medical Physics* 35(6):2414-2423, 2008.

Seibert JA. Digital radiography: image quality and radiation dose. *Health Phys*, Nov 95(5):586-98, 2008.

Williams MB, Krupinski EA, Strauss KJ, Breeden WK, Rzeszotarski MS, Applegate K, Wyatt M, Bjork S, Seibert JA. Digital radiography image quality: Image acquisition. *J Am Coll Radiol*, 4(6): 371-388, 2007.

Krupinski EA, William MB, Andriole K, Strauss KJ, Applegate K, Wyatt M, Bjork S, Seibert JA. Digital radiography image quality: Image processing and display. *J Am Coll Radiol*, 4(6):389-400, 2007.

Avrin D, Morin R, Piraino D, Rowberg A, Detorie N, Zuley M, Seibert JA, Pisano ED. Storage, transmission, and retrieval of digital mammography, including recommendations on image compression. *J Am Coll Radiol*, 3: 609-614, 2006.

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Bloomquist AK, Yaffe MJ, Pisano ED, Hendrick RE, Mawdsley GE, Bright S, Shen SZ, Mahesh M, Nickoloff EL, Fleischman RC, Williams MB, Maidment AD, Beideck DJ, Och J, Seibert JA. Quality control for digital mammography in the ACRIN DMIST trial: part I. *Med Phys*, 33(3): 719-36, 2006.

Boone JM, Kwan AL, Seibert JA, Shah N, Lindfors KK, Nelson TR. Technique factors and their relationship to radiation dose in pendant geometry breast CT. *Med Phys*, 32(12): 3767-76, 2006.

Cagnon CH, Cody DD, McNitt-Gray MF, Seibert JA, Judy PF, Aberle DR. Description and implementation of a quality control program in an imaging-based clinical trial. *Acad Radiol*, 13 (11):1431-41, 2006.

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