CURRICULUM VITAE

Allen R. Goode, MS, DABR

ADDRESS:

UVA Health
P.O. Box 800170
Charlottesville, VA 22908-0170
(434) 924-2163 (office)
(434) 531-2459 (mobile)
email: agoode@virginia.edu

EDUCATION:

Master of Science- May 1998
Biomedical Engineering
Thesis: *Evaluation of Dedicated Gamma-ray Imaging Detectors for Scintimammography*
University of Virginia, Charlottesville, VA

Bachelor of Science- May 1994
Clinical Radiation Sciences
Medical College of Virginia, Richmond, VA

Bachelor of Science- Dec. 1991
Chemistry
Virginia Commonwealth University, Richmond, VA

CERTIFICATIONS:

Diplomate, American Board of Radiology, *Diagnostic Radiological Physics*, June 2008, Certificate # P3717

Private Inspector, Virginia Department of Health, Division of Radiological Health, State License #RH-15-05-267, areas: Diagnostic X-ray, Mammography, and Shielding Calculations.

PROFESSIONAL EMPLOYMENT:

current:
Chief Diagnostic Medical Physicist
UVA Health
Department of Radiology & Medical Imaging, Division of Diagnostic Medical Physics, Charlottesville, VA
July 2010 - *present*

Assistant Professor of Radiography
Division of Health & Life Sciences
Piedmont Virginia Community College
Charlottesville, VA
January 2014 - *2015*

Medical Physicist
University of Virginia Health System
Department of Radiology, Division of Diagnostic Medical Physics, Charlottesville, VA
March 2006- July 2010

Imaging Physics Specialist
University of Virginia Health System
Department of Radiology, Division of Medical Physics
Charlottesville, VA
August 2003-February 2006

Instructor of Research (Research Faculty)
School of Medicine, Department of Internal Medicine
Division of Nuclear Cardiology, University of Virginia, Charlottesville, VA
April 2000 – August 2003

Instructor of Research (Research Faculty) and Medical Physicist, School of Medicine, Department of Radiology (Nuclear Medicine) University of Virginia, Charlottesville, VA
May 1998 – March 2000

Research Assistant, Detector Physics Laboratory
University of Virginia, Charlottesville, VA
January 1997- May 1998

Research Assistant, Ultrasound Imaging Laboratory
University of Virginia, Charlottesville, VA
January 1996 – December 1996

PROFESSIONAL SOCIETIES:

American Association of Physicists in Medicine
American College of Radiology
American Board of Radiology

CURRENT COMMITTEES/ BOARDS:

Vice-Chair, AAPM Task Group No. 355, Characterization of Contrast-to-Noise Ratio (CNR) Optimized Interventional Angiographic Fluoroscopy Equipment, 2020-

Member, American College of Radiology, Subcommittee on Breast X-ray Imaging Physics, 2020-

Member, Subcommittee on Radiography and Fluoroscopy (SCRF), American Association of Physicists in Medicine, 2019-

Member, Writing Committee, ACR–AAPM Technical Standard for Diagnostic Medical Physics Performance Monitoring of Fluoroscopic Equipment, American College of Radiology, 2020-

Advisor/Key Opinion Leader, Siemens Healthineers, Advanced Therapies Division, July 2019-

Member, Radiation Advisory Board, Commonwealth of Virginia, Office of Governor Ralph Northam, 2017-

Reader, American College of Radiology, Mammography Accreditation Program, 2018-

Member, Radiation Safety Committee, University of Virginia, 2008-

Chair, Human Investigations Involving Radiation Exposure Committee (HIRE), University of Virginia, 2009-

Co-Chair, Clinical Radiation Safety Committee (CRSC) University of Virginia Health System, 2014-

Member, UVA Radioactive Drug Research Committee (RDRC), 2017-

Member, UVA Cyclotron Research Facility Radiation Safety Committee, 2012-

Vice-Chair, AAPM Task Group No. 272 - Comprehensive Acceptance Testing and Evaluation of Fluoroscopy Imaging Systems, 2015-

Reviewer, Journal of Medical Physics, 2015-

Reviewer, Journal of Applied Clinical Medical Physics, 2020-

Reviewer, Journal of Radiological Physics and Technology, 2018-

PAST COMMITTEES/ BOARDS:

Member, Ad Hoc Committee to Develop User Instructions for IEC X-ray Performance Tests, American Association of Physicists in Medicine, 2020

Member, AAPM Task Group No. 248 - Interoperability Evaluation for Imaging Modality Acceptance Testing, 2014-2018

Member, AAPM Task Group No. 125, The Automatic Image Quality and Exposure Control in Interventional Fluoroscopy

Member, Bayer Health Care, Global Advisory Board 2015- 2019

Chair, Radiation Producing Equipment Subcommittee (RPE), University of Virginia, 2009-2013

Chair, Mid-Atlantic Chapter of American Association of Physicists in Medicine Professional Committee, 2012-2015

Member, Radiation Safety Committee, Culpeper Regional Hospital, Culpeper, VA 2010 –2018

Member, University Health System Consortium (UHC) Imaging Council – Radiation Reduction Task Force, March 2011-2012

Member, Advisory Board, Piedmont Virginia Community College Radiologic Technology Program, 2010-2017

TEACHING EXPERIENCE:

Radiobiology and Physics Review
Resident Lectures, Department of Radiology
University of Virginia, Charlottesville, VA

Radiological Physics, Digital Imaging, Interventional Radiographic Physics, Student Technologist Course, Department of Radiology, University of Virginia, Charlottesville, VA

Digital Imaging
Student Technologist Course,
Piedmont Virginia Community College, Charlottesville, VA

GRANTS:

Partnership for Dose, University of California, San Francisco, PCORI/NIH R01, *Sub-Investigator*

JOURNAL PUBLICATIONS:

Comparison of the Effectiveness of Single-Component and Multicomponent Interventions for Reducing Radiation Doses in Patients Undergoing Computed Tomography, A Randomized Clinical Trial, Rebecca Smith-Bindman, MD; Philip Chu, MS; YifeiWang, PhD; Robert Chung, PhD; Naomi Lopez-Solano, BS; Andrew J. Einstein, MD; Leif Solberg, MD;Luisa F. Cervantes, MD; Thomas Yellen-Nelson, PhD; William Boswell, MD; Bradley N. Delman, MD; Phuong-Anh Duong, MD; **Allen R. Goode, MS**; Nima Kasraie, PhD; Ryan K. Lee, MD; Rebecca Neill, MS; Anokh Pahwa, MD; Pavlina Pike, PhD; Jodi Roehm, MHA; Sebastian Schindera, MD; Jay Starkey, MD; Saravanabavaan Suntharalingam, MD; Cécile R. L. P. N. Jeukens, PhD; Diana L. Miglioretti, PhD, *JAMA Intern Med, March 30, 2020, in-press*

Signal and Contrast to Noise Ratio Evaluation of Fluoroscopic Loops for Interventional Fluoroscope Quality Control, Allen R. Goode, MS, Carl Snyder, PhD, Angela Snyder, PhD, Patricia Collins, PhD, Matthew DeLorenzo, MS, Pei-Jan Lin, PhD, Journal of Applied Clinical Medical Physics, 2019; 20:10:172–180

Evaluation of Skin Dose Calculation Factors in Interventional Fluoroscopy, Matthew DeLorenzo, MS **Allen Goode, MS,** Journal of Applied Clinical Medical Physics, 2019; 1–10

Summary of the AAPM Task Group 248 Report: Interoperability Assessment for the Commissioning of Medical Imaging Acquisition Systems, Alisa Walz-Flannigan, Ph.D., John Weiser, Ph.D., **Allen R. Goode**, M.S., Kevin Junck, Ph.D., Lawrence Tarbox, Ph.D., Jaydev K. Dave, Ph.D., David A. Clunie, M.D., Roderick W. McColl, Ph.D., Steve G. Langer, Ph.D., *Medical Physics, 46(7), July 2019*

Evaluation of monoenergetic imaging to reduce metallic instrumentation artifacts in computed tomography of the cervical spine. Peter Komlosi, Deborah Grady, Justin S Smith, Christopher I Shaffrey, **Allen R Goode**, Patricia G Judy, Mark Shaffrey, and Max Wintermark, *Journal of*

Neurosurgery. Spine, 1–5.
doi:10.3171/2014.10.SPINE14463

Functionality and operation of fluoroscopic automatic brightness control/automatic dose rate control logic in modern cardiovascular and interventional angiography systems: A Report of Task Group 125 Radiography/ Fluoroscopy Subcommittee, Imaging Physics Committee, Science Council, P. Rauch, P. Lin, S. Balter, A. Fukuda, **A. Goode**, G. Hartwell, T. LaFrance, E. Nickoloff, J. Shepard, K. Strauss, *Medical Physics*. 39 (5), May 2012

Safety of endoscopic retrograde cholangio-pancreatography in pregnancy: Fluoroscopy time and fetal exposure, does it matter? Smith, I., Gaidhane, M., **Goode, A**., & Kahaleh, M. (2013). *World Journal of Gastrointestinal Endoscopy*, *5*(4), 148–153. doi:10.4253/wjge.v5.i4.148

Radiation Reduction Strategies: A Guide for the Imaging Administrator, University Hospital Consortium Imaging Council, March 2012

Organ biodistribution and myocardial uptake, washout, and redistribution kinetics of Tc-99mN-DBODC5 when injected during vasodilator stress in canine models of coronary stenoses, Kengo Hatada, MD, Mirta Ruiz, MD, Laurent M. Riou, PhD, Ronaldo L. Lima, MD, **Allen R. Goode, MS**, Denny D. Watson, PhD, George A. Beller, MD, and David K. Glover, MEng, PhD, *J Nuclear Cardiology, November/December 2006, 779-790*

99mTc-N-DBODC5, a New Myocardial Perfusion Imaging Agent with Rapid Liver Clearance: Comparison with 99mTc-Sestamibi and 99mTc-Tetrofosmin in Rats, Kengo Hatada, MD, Laurent M. Riou, PhD, Mirta Ruiz, MD, Yoshihiro Yamamichi, Adriano Duatti, PhD, Ronaldo L. Lima, MD, **Allen R. Goode, MS**, Denny D. Watson, PhD, George A. Beller, MD and David K. Glover, PhD, *Journal of Nuclear Medicine* Vol. 45 No. 12 2095-2101

Incremental Value of Combined Perfusion and Function Over Perfusion Alone by Gated SPECT Myocardial Perfusion Imaging for Detection of Severe 3-Vessel Coronary Artery Disease. Lima RSL, Watson

DD, **Goode AR**, Siadaty MS, Ragosta M, Beller GA, Samady H. *J Am Coll Cardiol 2003;42:64-70*

Performance of a PSPMT Based Detector for Scintimammography Mark B. Williams, Ph.D**, Allen R. Goode**, M.S.,Victor Galbis-Reig, Stan Majewski, Ph.D., Andrew. G. Weisenberger, Ph.D., Randal Wojcik, *Physics in Medicine and Biology, 45:781-800, (2000)*

Multimodality Imaging of Small Animals Mark B. Williams, Victor Galbis-Reig, **Allen R. Goode**, Piero U. Simoni, Stan Majewski, Walter Phillips, and Marty Stanton, RSNA E-Journal, Vol. 3 1999, http://ej.rsna.org/

Detection of Regional Pulmonary Perfusion Deficit of the Occluded Lung Using Arterial Spin Labeling in Magnetic Resonance Imaging, Vu M. Mai, Ph.D. Klaus D. Hagspiel, M.D. Talissa Altes, M.D., **Allen R. Goode**, M.S., Mark B. Williams, Ph.D. and Stuart S. Berr, Ph.D. *J Magnetic Resonance Imaging.11(2):97-102, 2000*

RECENT ABSTRACTS:

Initial Evaluation of Patient Exposure from Fluoroscopic Equipment Platforms That Dynamically Adjust Multiple Imaging Parameters, **Goode A.R.**, Contrella, B., Giraldo Herrera, D. , Chandra. V., Sheeran, D., Wilkins, L., Angle, J.F., accepted for presentation at the Society of Interventional Radiology Annual Meeting, 2021 (virtual) ePoster.

Procedures Commonly Leading to Operator Initiated Changes in Fluoroscopic Frame Rate, Giraldo Herrera, D., Khaja, M., **Goode A.R.,** Contrella, B., Angle, J.F., accepted for presentation at the Society of Interventional Radiology Annual Meeting, 2021 (virtual) ePoster.

The Contrast-To-Noise Ratio Optimized Fluoroscopy Operation Logic, Pei-Jan (Paul) Lin**, Allen Goode**, Frank Corwin, *ePoster presented at the American Association of Physicists in Medicine Annual Meeting 2020 (Virtual), Vancouver, BC*

Geometric Accuracy Quality Assurance Phantom for Fluoroscopic Skin Dose Mapping Software, M DeLorenzo, W Dove, **A Goode,** *Blue Ribbon ePoster*

presented at the American Association of Physicists in Medicine Annual Meeting 2020 (Virtual), Vancouver, BC

Vascular lesion visualization with ultra-low dose DSA in a phantom, S Clark, **A Goode**, L Wilkins, D Sheeran, M Khaja, J Angle, *poster presentation, Society of Interventional Radiology 2020 (Virtual), Seattle, WA*

Reduction of DSA Dose Per Frame without Perceivable Loss in Image Quality – a Phantom Study, A Goode, S Clark, L Wilkins, D Sheeran, M Khaja, J Angle, *poster presentation, Society of Interventional Radiology 2020 (Virtual), Seattle, WA*

Fast and Furious: Shielding Designs for Eighteen Imaging Suites Using RadShield, M DeLorenzo, **A Goode**, *ePoster, AAPM Annual Meeting 2019 San Antonio, TX*

Automated Phantom Analysis for Gamma Cameras - An Efficient, Accessible, Consistent, and Sensitive Method for Quality Control, T Tazegul, A Polemi, A Snyder, C Snyder, **A Goode**, P Collins, *Oral Presentation, AAPM Annual Meeting 2019 San Antonio, TX*

Does Height Really Matter? Evaluating Personal Radiation Exposure Based on Operator Height, D Suttle MD; N Keefe MD; **A Goode** MS; T Quesenberry BS; J Patrie MS; D Sheeran, MD; J Angle MD, FSIR, *poster presentation, Society of Interventional Radiology 2019*

Fluoroscopic Skin Dose Calculation Using Scatter Factors Fitted to Analytical Functions, Matthew De Lorenzo, **Allen Goode,** *presented at AAPM Annual Meeting 2018 Nashville*

Use of Signal to Noise Ratio for Daily Quality Control of Fluoroscopes Used for Interventional Radiology Procedures, A Goode, C Snyder , A Snyder, G Manninen, DeLorenzo, P Collins, *ePoster presented at AAPM Annual Meeting 2018 Nashville, TN*

Quantifying the Material Differentiation Ability of Virtual Monochromatic Images Synthesized From Dual-Energy CT (DECT) Images (Phantom Study), Joubin Nasehi Tehrani, Cheukkai Hui, Bruce Libby, **Allen Goode**, Patricia Collins, Jeffrey Siebers, *ePoster to be presented, AAPM Annual Meeting 2018 Nashville, TN*

Radiation exposure during computed tomography-guided cryoablation of renal masses. A. S. Burns, M. J.

Bassignani, N. S. Schenkman, D. Theodorescu, **A. Goode**, T. L. Krupski; University of Virginia & Virginia Urology Center, Richmond, VA; *presented at 2010 ASCO Annual Meeting (June 4-8, 2010)*

Band-like Radiation-induced Alopecia Secondary to Multiple CT Perfusion Studies and Digital Subtraction Angiography, B W Skelton, MD; K Kreitel, MD; J R Gaughen, MD; **A R Goode**, C Phillips, MD, *Presentation, RSNA 2008*

Use of Personal Dosimeters as an Aid to Reducing Operator Exposure During Interventional Radiographic Procedures, **Allen R. Goode**, David J. Spinosa, John F Angle, Gary D Hartwell, Eric Bissonnette, Alan H Matsumoto, *Accepted for a poster presentation during Society of Interventional Radiology. New Orleans, LA 2005.*

Estimating Operator Exposures for Interventional Procedures Performed By Interventional Radiologists (IRs) David J. Spinosa, **Allen R Goode**, John F Angle, Gary D Hartwell, Eric Bissonnette, Alan H Matsumoto. *Accepted for a poster presentation during Society of Interventional Radiology, New Orleans, LA, 2005.*

SELECTED PRESENTATIONS:

Acceptance and Acceptability Testing of Modern Fluoroscopy Equipment – Dosimetry, *invited presentation, American Association of Physicists in Medicine Annual Meeting, 2018 Nashville, TN*

Clinical Experiences with a Patient Skin Dose Monitoring and Tracking Program, *invited presentation, American Association of Medical Physics Spring Clinical Meeting 2018, Las Vegas, NV*

Clinical Experience with a Radiation Dose Tracking Program in Interventional Radiology, *invited presentation, Society of Interventional Radiology Annual Meeting 2018, Los Angeles, CA*

QC Zen and the Art of Inspector Happiness, Steven J. Backes, Angela Snyder, **Allen Goode**, *AHRA Webinar, 2016*

Use of the Enterprise-wide Dose Tracking Software Radimetrics in an Academic Medical System, Allen

Goode, *presented at the American Association of Physicists in Medicine Annual Meeting, July 2015*

Retrospective Review of Head CT Doses During a 6 Month Period: A Method for Identifying Opportunities for Improvement through the Prevention of Outliers- Emily A Mugler, Kelly N Miller, **Allen R Goode**, Patricia G Judy, Talissa A Altes, Peter Komlosi, Sugoto Mukherjee, *presented at the 53rd Annual ASNR Meeting, April 25-30, 2015*

Clinical Assessment and Utility of Eye Dose Measurements for Imaging Procedures - P. Judy, M. Wintermark, M. Claytor, R. Stewart, **A. Goode,** *presented at the AAPM Spring Clinical Meeting, Dallas, TX, 2012,*

CT QA for the Therapy Physicist, *invited speaker at the American Association of Physicists in Medicine – Mid-Atlantic Chapter 2011 Fall Meeting, Richmond, VA, Nov. 2011*

Radiation Safety Lecture, *invited speaker at the American Society of Interventional and Therapeutic Neuroradiology, San Diego, CA, May 2006, New Orleans May 2007*

Temporal Dosimetry for Quantification of Operator Exposure within Different Segments of Radiographic Procedures, *presented at the American Association of Physicists in Medicine Annual Meeting, July 2004.*

The Lost Art of Gated Blood Pool Imaging, invited presentation, *6th Annual American Society of Nuclear Cardiology Scientific Session, September 2002, Baltimore, MD*

A System for Dual Modality Breast Imaging, **A.R. Goode**, M.B. Williams, P.U. Simoni, V. Galbis-Reig, S. Majewski, A.G. Weisenberger, R. Wojcik, M. Stanton, W. Phillips, A. Stewart, presented at the 1999 IEEE MIC

Gamma ray imaging detectors for breast imaging, Mark B. Williams, **Allen R. Goode**, Stan Majewski, Daniela Steinbach, Andrew G. Weisenberger, Randy Wojcik, Presented at the SPIE Conference July 1997

A Small Scintimammography Detector Based on a 5" PSPMT and Crystal Scintillator Arrays, D. Steinbach, S. Cherry, N. Doshi, **A. Goode**, B. Kross, S. Majewski, A.G. Weisenberger, M. Williams, R. Wojcik, Presented at the IEEE Medical Imaging Conference, Nov.1997

PRIOR CLINICAL TRIALS:

Project manager: **"The effect of enhanced external counterpulsation (EECP) on myocardial perfusion in patients with stable symptomatic coronary artery disease: a pilot study".** A multi-center trial, sponsored by Vasomedical, Inc.

Project manager: **"The Surgical Treatment for Ischemic Heart (STICH) Failure Trial",** A multi-center international clinical trial, sponsored by the NIH, Fujisawa and Bristol-Myers Squibb Medical Imaging.

Project manager: **"A Multicenter Trial to Assess the Role of Gated SPECT Sestamibi Myocardial Perfusion Imaging in Patients with New Onset Congestive Heart Failure"**, A multi-center trial, sponsored by DuPont Pharma.

Project manager: **"A Phase III, Open-Label, Single-Crossover Study to Confirm the Diagnostic Potential of Intravenously-Administered TcN-NOET to Identify Coronary Artery Disease during Exercise and Resting Conditions by using gated Myocardial SPECT Imaging",** Protocol Number 300-M, CIS-Bio/Berlex Inc.

Data analyst: **"Independent Image Read of the Echocardiographic and Single Photon Emission Computed Tomography (SPECT) Images from Study PBI003"**, A multi-center trial, University of Virginia Department of Cardiology and Nycomed Inc.