

BIOGRAPHICAL SKETCH
DO NOT EXCEED FIVE PAGES.

NAME: Jones, Randall Wayne, Dr.Eng

eRA COMMONS USER NAME (credential, e.g., agency login): #####

POSITION TITLE: President, CTO and Radiology Physicist, FirstScan LLC & CEO, ScanMed LLC

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
Texas A&M University	BS	12/1985	Bioengineering
Texas A&M University	ME	08/1987	Electrical Engineering
Texas A&M University	Doctor of Eng (PhD,MBA)	08/1990	Electrical Eng & MBA

A. Personal Statement

I have been directly involved in the field of MRI for many years, beginning as a MRI antennae designer, then as project engineer, project manager, company manager, Assistant Professor of Radiology at UNMC, and for the past 20 years, CEO and/or President of MRI equipment and/or Imaging services companies ending with ScanMed LLC. During this time, I was instrumental in bringing over 50 new MRI coil designs to market, including dedicated pediatric coils, head, neck, spine coils, and a disposable interventional liver MRI antenna. More recently, I created the world's first wearable pelvic MRI antenna, and in January 2016, created and opened the first dedicated secondary prostate cancer screening MRI facility, FirstScan LLC in Omaha, NE. Most recently, I created a partnership to start an artificial intelligence software company, Bot Image, Inc., to improve upon the clinical effectiveness of MR image interpretation. The first product, ProstatID™ is accomplishing this by improving the detection and interpretation of prostate cancer in MRI.

My background has also included academic experiences. I have contributed to the science through several peer-reviewed and accepted papers and talks. Additionally, 18 United States Patents are in my name with several additional patents pending in very novel MRI antenna designs including variations of the wearable prostate/pelvic antenna. While employed at the University of Nebraska Medical Center as a site MRI physicist, researcher, and lecturer of MRI (to radiology residents and MRI technologists in training) I also assisted in creating and co-authoring several clinical papers within the department of Radiology.

After attaining the Doctor of Engineering degree, with dissertation/record of study focused in MRI coil engineering, I was employed by another MRI coil company and charged with SBIR and Wisconsin Department of Economic Development grant submissions between the years of 1989 and 1993. The company, then called, Medical Advances Inc., was awarded two SBIR grants involving novel MRI coil developments which I wrote and conducted. One was for the first dual-tuned head coil for imaging and spectroscopy and the other a coil specifically designed to improve imaging of diabetic feet and ankles.

Currently, as CEO, CTO and chief scientist of Bot Image, Inc, a software company whose first product is an FDA-cleared prostate cancer detection, diagnosis, and screening software using non-contrast MRI. It is first of its kind in the world and also is cleared for cancer lesion segmentation and classification.

B. Positions and Honors

Positions and Employment

1974 – 1981 Electronic Security Service electronics specialist w/NSA level clearance, USAF
1985 – 1989 USAF Reserve, Bioenvironmental Engineer (OHSA & NBC Warfare)
1987 – 1989 Graduate Research and Lecturer, Texas A&M University
1989 – 1993 Various MRI antenna engineering and Managerial positions at Medical Advances, Inc.
1993 – 2000 Assistant Professor of Radiology, University of NE Medical Center (0.5 FTE)
1993 – 2004 President & CEO of MRI coil company, Medic Inc., Omaha, NE
2005 – 2022 President & CEO of MRI coil company ScanMed LLC, Omaha, NE
2016 – 2020 President & CTO of ACR-accredited MRI provider facility, Omaha, NE
2018 – Present President and CEO of Bot Image, Inc., AI software company, Omaha.
2024 – Present Managing Partner of Prostate Precision Consulting LLC, Belgrade, ME

Other Experience and Professional Memberships

1991 – Present Voting Member International Society of Magnetic Resonance in Medicine
2012 – Present Advisory committee to the University of Nebraska Business College

Honors

1978 NCO Leadership School: The Honor Graduate, Electronics Security Command
1981 USAF Meritorious Service Medal
1986 USAF Bioenvironmental Engineering School – Salutatorian
2000 Small Business Achievement Award – State of NE & UNMC

Patents

J. Dhaouadi, E.J.Ulrich, R.W.Jones, "Automated Prostate Cancer Detection and Diagnosis Using a Boosted Ensemble of Bagging Ensemble Models", US 18/114,174, EU PCT/US23/63282
R.W. Jones, "Articulated NMR Shoulder Coil with Fusible Link," U.S. Pat. No. 5,136,244
R.W. Jones, NMR Neck Coil with Passive Decoupling," U.S. Pat. No. 5,166,618
R.W. Jones, "NMR Pelvic Coil," U.S. Pat. No. 5,307,806
R.W. Jones, "NMR Liver Coil," U.S. Pat. No. 5,390,672
R.W. Jones, "NMR Shoulder Coil," U.S. Pat. No. 5,343,862
R.W. Jones, "NMR QD Solenoidal Coils," U.S. Pat. No. 5,351,688
R.W. Jones, NMR Adjustable Volume Array," U.S. Pat. No. 5,477,146
R.W. Jones, "Quadrature Detection Array," U.S. Pat. No. 5,430,378
R.W. Jones, "Conformal Solenoidal Coil," U.S. Pat. No. 5,543,710
R.W. Jones, F. Davis, "Surface Coil System for a Single Channel NMR Receiver," U.S. Pat. No. 5,666,055
R.W. Jones, "Garment Antenna Array," U.S. Pat. No. 9,002,431
R.W. Jones, "Wearable MRI Pelvic Coil," U.S. Pat. No. 29/623,889 (pending)
R.W. Jones, "Design Patent for Pelvic Coil," International Pat. No. 29/648,447 (pending)
R.W. Jones, "Garment Antenna Array, CON of No. 9,002,431" U.S. Pat. No. 14/635,600 (pending)
R.W. Jones, "Garment Antenna Array, C.I.P. of 14/635,600," U.S. Pat. No. 15/895,435 (pending)
R.W. Jones, "Dual Tuned MRI Resonator and Coil Package," U.S. Pat. No. 15/909,351 (pending)
R.W. Jones, "DUAL TUNED MRI RESONATOR, COIL PACKAGE, AND METHOD," International Patent Application PCT/US18/20454

C. Contribution to Science

Peer-reviewed Publications:

1. *Prototype Description and Ex Vivo Evaluation of a System for Combined Endorectal Magnetic Resonance Imaging and In-Bore Biopsy of the Prostate.* Fergus V. Coakley, MD,* Bryan R. Foster, MD,* David W. Schroeder, MD,* William D. Rooney, PhD,† Randall W. Jones, DE,§ and Christopher L. Amling, MD‡, *J Comput Assist Tomogr* • Volume 00, Number 00, Month 2024
2. *Part II: Effect of different evaluation methods to the application of a computer-aided prostate MRI detection/diagnosis (CADe/CADx) device on reader performance.* Jeffrey H. Makia,* , Nayana U Patel^b, Ethan J Ulrich^c, Jasser Dhaouadic, Randall W Jones^c *Current Problems in Diagnostic Radiology* (in-press May 2024).
a Department of Radiology, University of Colorado Anschutz Medical Center, b University of New Mexico Department of Radiology, c Bot Image, Inc., Omaha, NE
3. *Part I: Prostate cancer detection, artificial intelligence for prostate cancer and how we measure diagnostic performance: a comprehensive review* Jeffrey H. Makia,* , Nayana U Patel^b, Ethan J Ulrich^c, Jasser Dhaouadic, Randall W Jones^c *Current Problems in Diagnostic Radiology* (in-press May 2024).
a Department of Radiology, University of Colorado Anschutz Medical Center, b University of New Mexico Department of Radiology, c Bot Image, Inc., Omaha, NE
4. *Comparison of machine learning methods for detection of prostate cancer using bpMRI radiomics features,* Ethan J Ulrich¹ , Jasser Dhaouadi¹, Robben Schat², Benjamin Spilseth², and Randall Jones¹, *Book of Abstracts, ISMRM Annual Meeting, London, UK, May 2022*
5. R.W. Jones, J. Grennan, "Changing the Standard of Care (SOC) with PCa MRI screening using low-cost, highly accurate, PCa screening with MRI," Approved submission: 2018 SAR Annual Meeting.
6. R.W. Jones, J. Grennan, "Standardization Is Much Needed In PCa MRI," Approved submission: 2018 SAR Annual Meeting.
7. G. Sirineni, B. Loggie, R.W. Jones, "Bi-parametric MRI (Bp-MRI) is a Promising Modality for Prostate Cancer (PCa) Screening: Analysis of Pilot Data," Approved submission: 2018 SAR Annual Meeting.
8. V. Kampani, R.W. Jones, H.C. Charles, N. Hussey, "Dual-tuned RF coil system for parallel imaging of human lungs using perflourinated gases," *ISMRM 2017 Annual Meeting Book of Abstracts, April 2017.*
9. H. C. Charles, R.W. Jones, A.F. Halaweish, M.D.Ainslie, "Parallel Imaging for Short Breath Hold Times in Perflourinated Gas Imaging of the Lung," *ISMRM 2015 Annual Meeting E-poster, May 2015.*
10. R.W. Jones, "Twelve Antenna Element Lower Extremity/Pelvic Array for MRI(A)," *ISMRM Book of Abstracts, April 1998.*
11. R.W. Jones, R.J. Witte, "Coil-induced Intensity Artifacts in Clinical MR Imaging," submitted April 1998, *RadioGraphics, Washington, DC.*
12. R.W. Jones, R.J.Witte, "Coil-induced Intensity Artifacts in Clinical MR Imaging," *RSNA Book of Abstracts, November 1995, Chicago, IL.*
13. R.J. Witte, R.W. Jones, "Evaluation of the Aortic Arch & Carotid Arteries with MRA," *RSNA Book of Abstracts, November 1995, Chicago, IL.*
14. B.L. Barness, C.W. Walker, R.W. Jones, T.E. Moore, K.L. Garvin, "High Resolution MR Imaging of the Hip," *Book of Abstracts, 43rd AUR Meeting, April 1995, San Diego, CA.*
15. M. Switzer, R. Witte, R. Jones, et. al, "Magnetic Resonance Angiography of the Aortic Arch, " *Book of Abstracts, First Annual Meeting of the SMR, March 1994, Dallas, TX.*
16. T.C. Goertzen, R.W. Jones, R.J.Witte, et.al., "Magnetic Resonance Angiography of the Peripheral Vascular System using a Long Quadrature Array Extremity Coil," *Book of Abstracts, First Annual Meeting of the SMR, March 1994, Dallas, TX.*
17. R. W. Jones, E.B. Boskamp, "Minimization of Noise Contributions in Multiple Coils: An Overview of Theories with Recommended Improvements", (Accepted for oral presentation) *Book of Abstracts, 11th Mtg. of the Society of Magnetic Resonance in Medicine (SMRM), Aug. 1992, Berlin Germany.*
18. K. Vij, R.W. Jones, E.B. Boskamp, "The Asymmetric Birdcage Design: A Quadrature Neck Coil Application", *Book of Abstracts, 11th SMRM, Aug. 1992, Berlin Germany.*
19. R. W. Jones, "Fusing & Decoupling Redundancies in MR Surface Coils: Sacrificing Image Quality for Safety? ", *Book of Abstracts, Tenth Annual Scientific Meeting of the SMRM, Aug. 1991, San Francisco, CA.*
20. R. W. Jones, "Multiple Local Coils in Magnetic Resonance Imaging: Design Analyses and Recommended Improvements", *Dissertation, Texas A & M University, College Station, TX, August 1990.*

21. R. W. Jones, Book review of Physical Techniques in Clinical Hyperthermia publ. in the Annals of Biomedical Engineering, Vol. 16, 1988.
22. R. W. Jones, "A Study of the Measurement of Complex Permittivity of Biological Tissues using an Open Coaxial Probe," Masters thesis defense, Dept. of Elect. Eng., Texas A & M Univ., College Station, TX, July 1987.

D. Additional Information: Research Support and/or Scholastic Performance

No Peer reviewed research support in the last three years.