



Andrew Louis Wentland

- Postdoctoral Medical Fellow, Radiology
- Resident in Radiology
- Curriculum Vitae available Online

Bio

CLINICAL FOCUS

- Residency
- Radiology

HONORS AND AWARDS

- Junior Fellow, International Society for Magnetic Resonance in Medicine (2012)
- Summa Cum Laude Merit Award, International Society for Magnetic Resonance in Medicine (2014)
- Magna Cum Laude Merit Award, International Society for Magnetic Resonance in Medicine (2013)
- Scholar, Introduction to Academic Radiology (ITAR) Program, Radiological Society of North America/American Physician Scientists Association (2012)
- Ruth L. Kirschstein National Research Service Award for Individual Predoctoral MD/PhD Fellows (F30), National Heart, Lung, and Blood Institute (NHLBI) (2011)
- Research Award, Society of Uroradiology (2009)
- Research Medical Student Grant, Radiological Society of North America (2008)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Associate Editor, Journal of Magnetic Resonance Imaging (2016 - present)
- Reviewer, Journal of Magnetic Resonance Imaging (2011 - present)
- Reviewer, Neuroradiology (2011 - present)
- Reviewer, Magnetic Resonance Imaging (2013 - present)
- Reviewer, Hypertension (2014 - present)
- Reviewer, European Radiology (2014 - present)
- Reviewer, Atherosclerosis (2014 - present)
- External Reviewer, Swiss National Science Foundation (2016 - present)
- Abstract Reviewer, International Society for Magnetic Resonance in Medicine (2013 - present)
- Admissions Committee Member, University of Wisconsin Medical Scientist Training Program (MSTP) (2011 - 2013)
- Physician Scholar, Stanford Society of Physician Scholars (2016 - present)
- Member, Radiological Society of North America (2004 - present)
- Member, International Society for Magnetic Resonance in Medicine (2004 - present)

PROFESSIONAL EDUCATION

- Internship, University of Wisconsin School of Medicine & Public Health , Surgery (2016)
- MD, University of Wisconsin School of Medicine & Public Health (2015)
- PhD, University of Wisconsin School of Medicine & Public Health , Medical Physics (2013)
- MS, University of Wisconsin School of Medicine & Public Health , Medical Physics (2011)
- BS, University of Wisconsin - Madison , Biomedical Engineering (2006)

Publications

PUBLICATIONS

- **Incidence of Nephrogenic Systemic Fibrosis Using Gadobenate Dimeglumine in 1423 Patients With Renal Insufficiency Compared With Gadodiamide.** *Investigative radiology*
Bruce, R., Wentland, A. L., Haemel, A. K., Garrett, R. W., Sadowski, D. R., Djamali, A., Sadowski, E. A.
2016; 51 (11): 701-705
- **Muscle velocity and inertial force from phase contrast MRI** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Wentland, A. L., McWalter, E. J., Pal, S., Delp, S. L., Gold, G. E.
2015; 42 (2): 526-532
- **Measurements of Wall Shear Stress and Aortic Pulse Wave Velocity in Swine With Familial Hypercholesterolemia** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Wentland, A. L., Wieben, O., Shanmuganayagam, D., Krueger, C. G., Meudt, J. J., Consigny, D., Rivera, L., McBride, P. E., Reed, J. D., Grist, T. M.
2015; 41 (5): 1475-1485
- **Simultaneous MRI of Lung Structure and Perfusion in a Single Breathhold** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Bell, L. C., Johnson, K. M., Fain, S. B., Wentland, A., Drees, R., Johnson, R. A., Bauman, G., Francois, C. J., Nagle, S. K.
2015; 41 (1): 52-59
- **Review of MRI-based measurements of pulse wave velocity: a biomarker of arterial stiffness.** *Cardiovascular diagnosis and therapy*
Wentland, A. L., Grist, T. M., Wieben, O.
2014; 4 (2): 193-206
- **Repeatability and Internal Consistency of Abdominal 2D and 4D Phase Contrast MR Flow Measurements** *ACADEMIC RADIOLOGY*
Wentland, A. L., Grist, T. M., Wieben, O.
2013; 20 (6): 699-704
- **Aortic pulse wave velocity measurements with undersampled 4D flow-sensitive MRI: comparison with 2D and algorithm determination.** *Journal of magnetic resonance imaging : JMRI*
Wentland, A. L., Wieben, O., François, C. J., Boncyk, C., Munoz del Rio, A., Johnson, K. M., Grist, T. M., Frydrychowicz, A.
2013; 37 (4): 853-859
- **Dynamic and Static Magnetic Resonance Angiography of the Supra-aortic Vessels at 3.0 T Intraindividual Comparison of Gadobutrol, Gadobenate Dimeglumine, and Gadoterate Meglumine at Equimolar Dose** *INVESTIGATIVE RADIOLOGY*
Kramer, J. H., Arnoldi, E., Francois, C. J., Wentland, A. L., Nikolaou, K., Wintersperger, B. J., Grist, T. M.
2013; 48 (3): 121-128
- **MR measures of renal perfusion, oxygen bioavailability and total renal blood flow in a porcine model: noninvasive regional assessment of renal function** *NEPHROLOGY DIALYSIS TRANSPLANTATION*
Wentland, A. L., Artz, N. S., Fain, S. B., Grist, T. M., Djamali, A., Sadowski, E. A.
2012; 27 (1): 128-135
- **Reproducibility of Renal Perfusion MR Imaging in Native and Transplanted Kidneys Using Non-Contrast Arterial Spin Labeling** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Artz, N. S., Sadowski, E. A., Wentland, A. L., Djamali, A., Grist, T. M., Seo, S., Fain, S. B.
2011; 33 (6): 1414-1421

- **In Vivo Three-Dimensional MR Wall Shear Stress Estimation in Ascending Aortic Dilatation** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Biegling, E. T., Frydrychowicz, A., Wentland, A., Landgraf, B. R., Johnson, K. M., Wieben, O., Francois, C. J.
2011; 33 (3): 589-597
- **Comparing Kidney Perfusion Using Noncontrast Arterial Spin Labeling MRI and Microsphere Methods in an Interventional Swine Model** *INVESTIGATIVE RADIOLOGY*
Artz, N. S., Wentland, A. L., Sadowski, E. A., Djamali, A., Grist, T. M., Seo, S., Fain, S. B.
2011; 46 (2): 124-131
- **Arterial spin labeling MRI for assessment of perfusion in native and transplanted kidneys** *MAGNETIC RESONANCE IMAGING*
Artz, N. S., Sadowski, E. A., Wentland, A. L., Grist, T. M., Seo, S., Djamali, A., Fain, S. B.
2011; 29 (1): 74-82
- **Accuracy and Reproducibility of Phase-Contrast MR Imaging Measurements for CSF Flow** *AMERICAN JOURNAL OF NEURORADIOLOGY*
Wentland, A. L., Wieben, O., Korosec, F. R., Haughton, V. M.
2010; 31 (7): 1331-1336
- **Fetal Origin of the Posterior Cerebral Artery Produces Left-Right Asymmetry on Perfusion Imaging** *AMERICAN JOURNAL OF NEURORADIOLOGY*
Wentland, A. L., Rowley, H. A., Vigen, K. K., Field, A. S.
2010; 31 (3): 448-453
- **Blood oxygen level-dependent and perfusion magnetic resonance imaging: detecting differences in oxygen bioavailability and blood flow in transplanted kidneys** *MAGNETIC RESONANCE IMAGING*
Sadowski, E. A., Djamali, A., Wentland, A. L., Muehrer, R., Becker, B. N., Grist, T. M., Fain, S. B.
2010; 28 (1): 56-64
- **Quantitative MR Measures of Intrarenal Perfusion in the Assessment of Transplanted Kidneys: Initial Experience** *ACADEMIC RADIOLOGY*
Wentland, A. L., Sadowski, E. A., Djamali, A., Grist, T. M., Becker, B. N., Fain, S. B.
2009; 16 (9): 1077-1085
- **Nephrogenic systemic fibrosis: Risk factors and incidence estimation** *RADIOLOGY*
Sadowski, E. A., Bennett, L. K., Chan, M. R., Wentland, A. L., Garrett, A. L., Garrett, R. W., Djamali, A.
2007; 243 (1): 148-157
- **Cine flow measurements using phase contrast with undersampled projections: In vitro validation and preliminary results in vivo** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Wentland, A. L., Korosec, F. R., Vigen, K. K., Wieben, O., Fine, J. P., Grist, T. M.
2006; 24 (4): 945-951
- **Early emphysematous changes in asymptomatic smokers: Detection with He-3 MR imaging** *RADIOLOGY*
Fain, S. B., Panth, S. R., Evans, M. D., Wentland, A. L., Holmes, J. H., Korosec, F. R., O'Brien, M. J., Fountaine, H., Grist, T. M.
2006; 239 (3): 875-883

PRESENTATIONS

- Estimation of Pulse Wave Velocity Derived from 2D and 4D Flow-Sensitive Magnetic Resonance Imaging - 2nd International Conference on Computational & Mathematical Biomedical Engineering (3/2011)
- Fast PC Flow Measurements Using Undersampled PR: in vitro Validation and Preliminary Results in vivo - 13th Scientific Meeting & Exhibition of the International Society for Magnetic Resonance in Medicine (5/7/2005 - 5/13/2005)
- Using Phase Contrast MR, Accelerated with Radial Acquisitions, to Study the Effects of Physical and Physiologic Maneuvers on CSF Flow in Chiari I Malformation - 91st Scientific Assembly of the Radiological Society of North America (11/27/2005 - 12/2/2005)
- A Technique for Acquiring MR Images of CSF Flow during a Breath Hold - 44th Scientific Meeting of the American Society of Neuroradiology (4/29/2006 - 5/5/2006)
- Fast PC Flow Measurements using Undersampled Projection Reconstruction: Preliminary Results in a Swine Model - 14th Scientific Meeting & Exhibition of the International Society for Magnetic Resonance in Medicine (5/6/2006 - 5/12/2006)
- Technique for Acquiring MR Images of CSF Flow during a Valsalva Maneuver - 14th Scientific Meeting & Exhibition of the International Society for Magnetic Resonance in Medicine (5/6/2006 - 5/12/2006)
- Renal Artery Flow Measurements using a 2D Phase Contrast MR Acquisition with Undersampled Radial Projections - ISMRM Workshop on Flow and Motion: Imaging Assessment of Cardiovascular and Tissue Mechanics (7/13/2006 - 7/16/2006)

- To Measure the Effect of the Valsalva Maneuver on CSF Flow in the Foramen Magnum - 92nd Scientific Assembly of the Radiological Society of North America (11/26/2006 - 12/1/2006)
- Evaluation of Renal Artery Blood Flow Measurements with 2D Phase Contrast MR using Undersampled Projections - 92nd Scientific Assembly of the Radiological Society of North America (11/26/2006 - 12/1/2006)
- Determining the Correlation of Cortical and Medullary Oxygenation and Perfusion in Transplanted Kidneys by Functional MRI - 15th Scientific Meeting & Exhibition of the International Society for Magnetic Resonance in Medicine (5/19/2007 - 5/25/2007)
- Gadolinium and the Development of Nephrogenic Fibrosing Dermopathy - 15th Scientific Meeting & Exhibition of the International Society for Magnetic Resonance in Medicine (5/19/2007 - 5/25/2007)
- Cine Flow Measurements using Phase Contrast with Undersampled Projections - ISMRM Workshop on Non-Cartesian MRI (2/25/2007 - 2/28/2007)
- Measurements of Renal Perfusion and Oxygenation in Swine: Preliminary Results - 17th Scientific Meeting & Exhibition of the International Society for Magnetic Resonance in Medicine (4/18/2009 - 4/24/2009)
- Fetal Origin of the Posterior Cerebral Artery Produces Asymmetry on MR Perfusion Imaging - 47th Scientific Meeting of the American Society of Neuroradiology (5/16/2009 - 5/21/2009)
- Measurements of Renal Perfusion and Total Renal Blood Flow in Swine: Preliminary Results - ISMRM Workshop on Cardiovascular Flow, Function, and Tissue Mechanics (9/11/2009 - 9/13/2009)
- Measurements of Renal Perfusion, Oxygenation, and Total Renal Blood Flow in Swine - 18th Scientific Meeting & Exhibition of the International Society for Magnetic Resonance in Medicine (5/1/2010 - 5/7/2010)
- MRI Measurements of Wall Shear Stress in the Descending Aorta Downstream of an Ascending Aortic Aneurysm - 18th Scientific Meeting & Exhibition of the International Society for Magnetic Resonance in Medicine (5/1/2010 - 5/7/2010)
- MRI Measurements of Wall Shear Stress in the Infraarenal Aorta in the Young and Old - 18th Scientific Meeting & Exhibition of the International Society for Magnetic Resonance in Medicine (5/1/2010 - 5/7/2010)
- Comparison of Pulse Wave Velocity Measurements from 2D PC Slices and Radially Undersampled 4D PC MR - 19th Scientific Meeting & Exhibition of the International Society for Magnetic Resonance in Medicine (5/7/2011 - 5/13/2011)
- Pulse Wave Velocity Measurements from 2D PC Slices and Radially Undersampled 4D PC MR - 23rd Annual Meeting of the MR Angio Club (9/25/2011 - 9/28/2011)
- Repeatability and Internal Consistency of Abdominal 2D and 4D PC MR Flow Measurements - ISMRM Workshop on Exploring New Dimensions of Cardiovascular Flow & Motion (2/1/2012 - 2/2/2012)
- McKinnon-Bates Sparsification for Accelerated Phase Contrast Imaging - 20th Scientific Meeting & Exhibition of the International Society for Magnetic Resonance in Medicine (5/5/2012 - 5/11/2012)
- Oxygen Bioavailability and Pulse Wave Velocity in Patients with Metabolic Syndrome - 20th Scientific Meeting & Exhibition of the International Society for Magnetic Resonance in Medicine (5/5/2012 - 5/11/2012)
- Renal Oxygen Bioavailability in Healthy Volunteers and Patients with Well-Functioning and Diseased Renal Transplants - 20th Scientific Meeting & Exhibition of the International Society for Magnetic Resonance in Medicine (5/5/2012 - 5/11/2012)
- Evaluation and Validation of Pulse Wave Velocity Measurements from 2D and 4D PC MRI in Swine with Familial Hypercholesterolemia: Initial Results - 21st Scientific Meeting & Exhibition of the International Society for Magnetic Resonance in Medicine (4/20/2013 - 4/26/2013)
- Non-Invasive in vivo Measurements of Inertial Forces in Muscle using Phase Contrast Magnetic Resonance Imaging - 22nd Scientific Meeting & Exhibition of the International Society for Magnetic Resonance in Medicine (5/10/2014 - 5/16/2014)