

### **CURRICULUM VITAE**

### Timothy J. Ziemlewicz, M.D.

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#### Education

Undergraduate 1996-2000 University of Detroit Mercy Detroit, MI Degree: B.S. Biochemistry **Graduate/Medical School** 2000-2004 Wayne State University School of Medicine Detroit, MI Degree: M.D. Residency 2004-2005 Transitional Year Resident St. Joseph Mercy Hospital Ann Arbor, MI 2005-2009 Diagnostic Radiology Resident Chief Resident Jan 07- Dec 08 Wayne State University Detroit, MI Postgraduate/Fellowship 2009-2010 Abdominal Imaging Fellow Duke University

Durham, NC

#### **Certification and Licensure**

Specialty/Subspecialty Certification June 2009 American Board of Radiology Certified

#### Medical or Other Professional Licensure Wisconsin License # 54428-020, valid until 10/31/2022

North Carolina License #2009-00673, past licensure Michigan License #4301084036, past licensure



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### **Present Appointments/Positions**

2023-present	<b>Professor (CHS)</b> Division of Abdominal Imaging and Intervention University of Wisconsin Hospital and Clinics Madison, WI
2011-present	Director, 3D Imaging Lab University of Wisconsin Hospital and Clinics Madison, WI
2011-present	Assistant Residency Program Director University of Wisconsin Hospital and Clinics Madison, WI
2014-present	Chair, Clinical Competency Committee Department of Radiology University of Wisconsin Hospital and Clinics Madison, WI

### **Past Appointments/Positions**

2017-2023	<b>Associate Professor (CHS)</b> Division of Abdominal Imaging University of Wisconsin Hospital and Clinics Madison, WI
2010-2017	Assistant Professor (CHS) Division of Abdominal Imaging University of Wisconsin Hospital and Clinics Madison, WI
2007-2009	Chief Resident, Diagnostic Radiology Wayne State University/Detroit Medical Center Detroit, MI

### **Professional Society Memberships**

2022-Present	Society of Interventional Radiology
2019-Present	European Focused Ultrasound Charitable Society (EUFUS)
2019-Present	International Society for Therapeutic Ultrasound



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2015-Present	Society of Interventional Oncology, Founding Member
2014-Present	Society of Abdominal Radiology
2013-Present	Society of Radiologists in Ultrasound
2011-Present	Association of Clinician Educators in Radiology
2005-Present	American College of Radiology
2005-Present	American Roentgen Ray Society
2003-Present	Association of University Radiologists
2003-Present	Radiological Society of North American

#### **Honors and Awards**

2022 Awarded Editor's Recognition for Most Downloaded Article. Percutaneous lung biopsy with pleural & parenchymal blood patching: Results and complications from 1112 core biopsies. J Vasc Interv Radiol.

> Selected as the featured CME article for JVIR September 2022. Microwave ablation as bridging to liver transplant for patients with hepatocellular carcinoma: a single-center retrospective analysis. J Vasc Interv Radiol. Sept 2022

> Awarded Best Resident Oral Presentation. Percutaneous Biopsies in the Abdomen and Pelvis Guided by CT Electromagnetic Navigation. Zachary Clark Research Symposium, April 2022, Madison WI

Awarded Best Debut Oral Abstract Presentation. Mentored Resident. Mauch SC, Hepatic and Renal Histotripsy in an Anticoagulated Porcine Model. Society of Interventional Oncology Annual Scientific Meeting, March 2022, San Francisco, CA

- 2020 Award for Best Scientific Poster Abstract. Mentored Resident Mitigation of respiratory motion effects on Histotripsy ablations in porcine liver models by alteration of ablation zone prescription shape. Presented at the Society of Interventional Oncology
- 2017 **Best Poster Award. Mentored Medical Student (Shapiro Program)** Clinical outcomes of percutaneous microwave ablation for hepatic colorectal metastasis with a modern generation system. WCIO
- 2015 **Teacher of the year**, University of Wisconsin Department of Radiology



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**Best Poster Award.** Treatment of hepatocellular carcinoma w3ith combination TACE+MW ablation versus TACE monotherapy: A lesion-by-lesion analysis. WCIO

2013 **Best Abstract.** Safety and feasibility of percutaneous microwave ablation for renal parenchymal tumors. Wisconsin Urological Society Annual Meeting.

**Certificate of Merit.** Nuts and bolts of microwave ablation. *Education Exhibit.* RSNA Annual Meeting.

- 2011 **Certificate of Merit.**Image-guided percutaneous ablation of benign hepatic masses: Why operate when you don't have to? *Education Exhibit.* RSNA Annual Meeting.
- 2007 Completed Siemens-Association of University Radiologists Radiology Resident Academic Development (SARRAD) Program Association of University Radiologists Annual Meeting

Resident Research Award Wayne State University

- 2004 1<sup>st</sup> Place- Trainee Scientific Presentation *Functional Magnetic Resonance Imaging of the Brain During Deception* Association of University Radiologists Annual Meeting
- 2004 MD with honors, Wayne State University
- 2003 Alpha Omega Alpha
- 2000 Magna Cum Laude graduate, University of Detroit Mercy

### **Grant Support**

### Current

Title: Developing Methods for Precise, Safe and Target-location Specific Histotripsy of Liver Tumors Source: NIH RO1 Monetary Amount Awarded: \$3,083,240 Years of Award: 2021-2026 Principal Investigator: Tim Ziemlewicz Role: PI Percentage of Effort: 20%

Title: Advanced C-arm imaging platform for histotripsy treatment of liver tumors Source: NIH RO1 Monetary Amount Awarded: \$2,857,338 Years of Award: 2021-2025



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Principal Investigator: Paul Laeseke and Martin Wagner Role: co-I Percentage of Effort: 15%

Title: #HOPE4LIVER: The HistoSonics System for Treatment of Primary and Metastatic Liver Tumors Using Histotripsy Source: Histosonics, Inc. Years(s) Awarded: 2020-2025 PI: Timothy Ziemlewicz; Cliff Cho Role: co-PI of multi-center trial performed under FDA IDE Percentage of Effort: 5%

Title: HistoSonics GLP Study at University of Wisconsin Source: Histosonics, Inc. Monetary Amount Awarded: \$250,000 Years(s) Awarded: 2020-2024 PI: Timothy Ziemlewicz Role: PI Percentage of Effort: 10%

Title: Neuwave Microwave Ablation Registry Source: Ethicon Years of Award: 2019-current Principal Investigator: Tim Ziemlewicz Role: Site PI Funding amount: Variable based on competitive enrollment

#### **Major Past Awards**

Title: Real-time Ultrasonic Monitoring of Tumor Ablation Source: NIH, 2 RO1 CA112192-06 Monetary Amount Awarded: \$2,553,417 Years(s) Applied For: 2013-2019 PI: Tomy Vaghese, PhD Role: Co-Investigator Percentage of Effort: 5%

Title: Volumetric Perfusion MRI of Liver Tumors to Detect Early Response to Chemotherapy Source: NIH, 1 RC1 EB010384-01 Monetary Amount Awarded: \$1,000,000 Year(s) of Award: 2009-2012 Principal Investigator: Scott Reeder MD, PhD Role: Collaborator, assist with patient recruitment and data analysis Percentage of Effort: 5%

Title: Optimizing microwave ablation techniques for targeted cancer therapy Source: NIH, R01 CA142737-01



# **CURRICULUM VITAE**

Monetary Amount Award- \$207,500 Year(s) of Award: 2010-2014 Principal Investigator: Chris Brace, PhD Role: Co-Investigator

#### Minor Awards

Title: Neuwave Microwave Ablation System Using AC in Patients with A Soft Tissue Liver Lesion Source: Ethicon Years of Award: 2019-2023 Principal Investigator: Tim Ziemlewicz Role: Site PI Funding amount: Variable based on competitive enrollment

Title: Use of Dual Energy CT for Intra- and Post-Procedure Monitoring of Tumor Ablation Source: Society of Abdominal Radiology (Wylie J. Dodds Research Award) Amount: \$15,000 Year of Award: 2013 PI: Meghan G. Lubner, MD Role: Co-Investigator

### Submissions (Not funded)

Title: Transcranial focused ultrasound modulation of the extracellular matrix of the brian Source: Focused Ultrasound Foundation Monetary Amount: \$100,696 Submission Date: 8/1/22 Principal Investigator: JP Yu Role: co-I

Title: Monitoring of Liver Cancer Ablation Using Ultrasound Elastography Source: NIH RO1 Monetary Amount: \$691,287 Submission Date: 6/15/22 Principal Investigator: Jingfing Jiang Role: co-I

Title: Volumetric Ablation Reconstruction using Electrode Displacement Elastograpy Source: NIH RO1 Monetary Amount: \$3,687,720 Submission Date: 3/1/22 Principal Investigator: Tomy Varghese Role: co-I

Title: Histotripsy for Non-invasive Ultrasound-based Ablation of Liver Cancer (PO1) Project 2 Resubmission Source: NIH PO1 Monetary Amount: \$2,368,310



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Submission Date: 1/25/21 Principal Investigator: Tim Ziemlewicz Role: PI

Title: Histotripsy for Non-invasive Ultrasound-based Ablation of Liver Cancer (PO1) Project 2 Source: NIH PO1 Monetary Amount: \$2,223,330 Submission Date: 1/13/20 Principal Investigator: Tim Ziemlewicz Role: PI Project Impact Score: 24

Title: Optimization of Liver Histotripsy in Large Animal Models to Ensure Clinical Translation Source: NIH RO1 Monetary Amount: \$3,313,600 Submission Date: 02/04/20 Principal Investigator: Tim Ziemlewicz Role: PI

Title: Developing Methods for Precise, Safe, and Target-location Specific Histotripsy of Liver Tumors Source: NIH RO1 Monetary Amount: \$3,083,240 Submission Date: 10/2/20 Principal Investigator: Paul Laeseke; Martin Wagner Role: Co-investigator

Title: Histotripsy: Non-Invasive, Non-Thermal, Image-guided Ultrasound Ablation for Treatment of Liver Cancer (P01) Project 2 Pig Study Source: NIH PO1 Monetary Amount: \$2,246,180 Submission Date: 5/25/19 Principal Investigator: Tim Ziemlewicz Role: PI

Title: Non-Thermal, Image-guided Focused Ultrasound for the Non-Invasive Biopsy and Ablation of Kidney Cancer Source: DOD/CDMRP Monetary Amount: \$576,484 Submission Date: 10/4/18 Principal Investigator: Tim Ziemlewicz; Eli Vlaisavljevich Role: Co-PI with Eli Vlaisavljevich (Virginia Tech)

Title: Image-guided Noninvasive Ultrasonic Kidney Tumor Ablation Using Histotripsy Source: DOD/CDMRP Monetary Amount: \$599,866



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Submission Date: 1/2/18 Principal Investigator: Tim Ziemlewicz; Eli Vlaisavljevich Role: Co-PI with Eli Vlaisavljevich (Virginia Tech)

Title: Real Time Electrode Displacement Elastrography for Monitoring Tumor Ablation Source: DHHS, PHS, NIH Monetary Amount: \$1,814,910 Submission Date: 3/5/18 Principal Investigator: Tomy Varghese PhD Role: Co-Investigator

Title: Real-time Ultrasonic Monitoring of Tumor Ablation Source: NIH Monetary Amount: \$1,000,000 Submission Date: 7/5/18 Principal Investigator: Tomy Varghese Role: Co-Investigator

Title: Image-Guided Noninvasive Ultrasonic Kidney Tumor Ablation using Histotripsy Source: American Cancer Society Monetary Amount: \$20,000 Submission Date: 3/21/18 Principal Investigator: Eli Vlaisavljevich Role: Co-Investigator

Title: Histotripsy: Non-Invasive, Non-thermal, Image Guided Ultrasound Ablation for Treatment of Liver Cancer (P01) Project 4 Human Trial Source: NIH Monetary Amount: \$1,556,744 Submission Date: 5/25/18 Principal Investigator: Fred Lee Role: Co-Investigator

Title: Non-Invasive, Image Guided, Tissue Selective Tumor Ablation using Dual-Frequency Histotripsy Source: NIH Monetary Amount: \$20,000 Submission Date: 6/5/18 Principal Investigator: Eli Vlaisavljevich Role: Co-Investigator

Title: Image-guided Focused Ultrasound Therapy for Non-Invasive Liquid Biopsy and Selective Ablation of Kidney Cancer Source: NIH Monetary Amount: \$2,483,912 Submission Date: 10/5/18 Principal Investigator: Eli Vlaisavljevich Role: Co-Investigator



Title: Image-Guided Noninvasive Ultrasonic Kidney Tumor Ablation using Histotripsy Source: Department of Defense Monetary Amount: \$184,747 Submission Date: 12/18/2017 Principal Investigator: co-PIs Timothy Ziemlewicz and Eli Vlasisavljevich Role: Co-PI

Title: Improving Efficacy and Expanding Indications for Thermal Ablation Source: NIH Monetary Amount: Submission Date: 2/5/2016 Principal Investigator: Christopher Brace Role: Co-Investigator

### **Publications**

#### **Refereed Articles**

\*= mentor for first author CDD= Concept development and design M= Mentoring DA= Data acquisition A= Analysis W= Writing

- \*Swietlik JF, Knott EA, Longo KC, Zlevor AM, Zhang X, Laeseke PF, Reeder SB, Xu Z, Lee FT Jr, Ziemlewicz TJ. Histotripsy of Subcutaneous Fat in a Liver Porcine Model. Cardiovasc Intervent Radiol. 2022 Sep 12. Epub Ahead of print. PMID: 36097074
- \*Knott EA, Zlevor AM, Hinshaw JL, Laeseke PF, Longhurst C, Frank J, Bradley CW, Couillard AB, Rossebo AE, Xu Z, Lee FT Jr, **Ziemlewicz TJ**. A comparison study of microwave ablation vs. histotripsy for focal liver treatments in a swine model. *Eur Radiol*. 2022 Sep 1. Epub ahead of print.
- Couillard AB, Lee FT, Zlevor A, Mezrich JD, Agarwal P, Ziemlewicz TJ, Lubner MG, Hinshaw JL, Said a, Laeseke PF, Lucey MR, Wells SA, Rice JP, Myers JL, Foley D, Al-Adra D. Microwave ablation as bridging to liver transplant for patients with hepatocellular carcinoma: a single-center retrospective analysis. *J Vasc Interv Radiol*. 2022 Sep;33(9):1045-1053
- 4. Ruger L, Yang E, Gannon J, Sheppard H, Coutermarsh-Ott S, **Ziemlewicz TJ**, Dervisis N, Allen IC, Daniel GB, Tuohy J, Vlaisavljevich E, Klahn S. Mechanical High-Intensity



Focused Ultrasound (Histotripsy) in Dogs with Spontaneously Occurring Soft Tissue Sarcomas. *IEEE Trans Biomed Eng.* 2022 Aug 25;PP. Epub ahead of print.

- 5. Wagner MG, Periyasamy S, Kutlu AZ, Pieper AA, Swietlik JF, **Ziemlewicz TJ**, Hall TL, Xu Z, Speidel MA, Lee FT, Laeseke PF. An X-ray C-arm Guided Automatic Targeting System for Histotripsy. *IEEE Trans Biomed Eng*. 2022 Aug 15;PP Epub ahead of print.
- Lubner MG, Ziemlewicz TJ, Wells SA, Li K, Wu PH, Hinshaw JL, Lee FT Jr, Brace CL. Advanced CT techniques for hepatic microwave ablation zone monitoring and follow-up. Abdom Radiol (NY). 2022 Aug;47(8):2658-2668
- Vidal-Jove J, Serres X, Vlaisavljevich E, Cannata J, Duryea A, Miller R, Merino X, Velat M, Kam Y, Bolduan R, Amaral J, Hall T, Xu Z, Lee FT Jr, Ziemlewicz TJ. . Microwave ablation as bridging to liver transplant for patients with hepatocellular carcinoma: a single-center retrospective analysis. *Int J Hyperthermia*. June 3, 2022;39(1):1115-1123
- Tannenbaum AP, Lubner MG, Mithqal A, Ziemlewicz TJ, Allen GO, Brace CL, Jason Abel E, Mankowski-Gettle L, Schenkman NS, Wells SA. Split-bolus CT urography after microwave ablation of renal cell carcinoma improves image quality and reduces radiation exposure. *Abdom Radiol* (NY). 2022 Jun;47(6):2230-2237
- Agarwal PD, Haftoglou BA, Ziemlewicz TJ, Lucey MR, Said A. Psychosocial Barriers and Their Impact on Hepatocellular Carcinoma Care in US Veterans: Tumor Board Model of Care. *Fed Pract.* 2022 May;39(Suppl 2):S32-S36.
- Bracken RL, Harringa JB, Markhardt BK, Kim N, Park JK, Kitchin DR, Robbins JB, Ziemlewicz TJ, Birstler J, Ryan MJ, Hoang L, Pickhardt PJ, Reeder SB, Repplinger MD. Correction to: Abdominal fellowship-trained versus generalist radiologist accuracy when interpreting MR and CT for the diagnosis of appendicitis. Eur Radiol. 2022 Feb;32(2):1407.
- 11. Blitzer GC, Wojcieszynski A, Abel EJ, Best S, Lee FT Jr, Hinshaw JL, Wells SA, Ziemlewicz TJ, Lubner MG, Alexander M., Yadav P, Bayouth JE. Combining stereotactic body radiotherapy and microwave ablation appears safe and feasible for renal cell carcinoma in an early series. October 2021. *Clinical Genitourinary Cancer, 19*(5), e313-e318
- 12. \*Knott EA, Longo KC, Vlaisavljevich E, Zhang X, Swietlik JF, Xu Z, Rodgers AC, Zlevor AM, Laeseke PF, Hall TL, Lee FT Jr, **Ziemlewicz TJ**. Transcostal histotripsy ablation in



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an in vivo acute hepatic porcine model. October 2021. *Cardiovascular and Interventional Radiology, 44*(10), 1643-1650.

- Serres-Creixams X, Vidal-Jove J, Ziemlewicz TJ, Cannata JM, Escudero-Fernandez JM, Uriarte I, Alemany-Botelho C, Roson N, Escobar M. Contrast-Enhanced Ultrasound: A Useful Tool to Study and Monitor Hepatic Tumors Treated With Histotripsy. IEEE Trans Ultrason Ferroelectr Freq Control. 2021 Sep;68(9):2853-2860
- Vidal-Jove J, Serres-Creixams X, Ziemlewicz TJ, Cannata JM. Liver Histotripsy Mediated Abscopal Effect-Case Report. IEEE Trans Ultrason Ferroelectr Freq Control. 2021 Sep;68(9):3001-3005
- Krieger JR, Lee FT, McCormick T, Ziemlewicz TJ, Hinshaw JL, Wells SA, Laeseke PE, Stratchko L, Alexander M, Hedican SP, Best SL, Borza T. Microwave ablation of renal cell carcinoma. September 2021. Journal of Endourology, 35(S2), S33-S37.
- Zlevor AM, Mauch SC, Knott EA, Pickhardt PJ, Mankowski Gettle L, Mao L, Meyer CA, Hartung MP, Kim DH, Lubner MG, Hinshaw JL, Foltz ML, Ziemlewicz TJ, Lee FT Jr. Percutaneous Lung Biopsy with Pleural and Parenchymal Blood Patching: Results and Complications from 1,112 Core Biopsies. J Vasc Interv Radiol. 2021 Sep;32(9):1319-1327.
- 17. \* Swietlik JF, Mauch SC, Knott EA, Zlevor A, Longo KC, Zhang X, Xu Z, Laeseke PF, Lee FT Jr, **Ziemlewicz TJ**. Noninvasive thyroid histotripsy treatment: proof of concept study in a porcine model. Int J Hyperthermia. 2021;38(1):798-804
- Braken RL, Harringa JB, Markhardt BK, Kim N, Park JK, Kitchin DR, Robbins JB, Ziemlewicz TJ, Birstler J, Ryan MJ, Hoang L, Pickhardt P. Correction to: Abdominal fellowship-trained versus generalist radiologist accuracy when interpreting MR and CT for the diagnosis of appendicitis (european radiology, (2021), 10.1007/s00330-021-08163-7). *European Radiology.*
- Harringa JB, Bracken RL, Markhardt BK, Ziemlewicz TJ, Lubner M, Chiu A, Birstler J, Pickhardt PJ, Reeder SB, Repplinger MD. Magnetic resonance imaging versus computed tomography and ultrasound for the diagnosis of female pelvic pathology. Emerg Radiol. 2021 Aug;28(4):789-796.



- Pohlman RM, Hinshaw JL, Ziemlewicz TJ, Lubner MG, Wells SA, Lee FT Jr, Alexander ML, Wergin KL, Varghese T. Differential Imaging of Liver Tumors before and after Microwave Ablation with Electrode Displacement Elastography. Ultrasound Med Biol. 2021 Aug;47(8):2138-2156. PMCID: PMC8243838.
- 21. Knott EA, Ziemlewicz TJ, Lubner SJ, Swietlik JF, Weber SM, Zlevor AM, Longhurst C, Hinshaw JL, Lubner MG, Mulkerin DL, Abbott DE, Deming D, LoConte NK, Uboha N, Couillard AB, Wells SA, Laeseke PF, Alexander ML, Lee FT Jr. Microwave ablation for colorectal cancer metastasis to the liver: a single-center retrospective analysis. J Gastrointest Oncol. 2021 Aug;12(4):1454-1469; PMCID: PMC8421889.
- Pohlman RM, Hinshaw JL, Ziemlewicz TJ, Lubner MG, Wells SA, Lee FT Jr, Alexander ML, Wergin KL, Varghese T. Differential Imaging of Liver Tumors before and after Microwave Ablation with Electrode Displacement Elastography. Ultrasound Med Biol. 2021 Aug;47(8):2138-2156. PMCID: PMC8243838.
- Lubner MG, Mankowski Gettle L, Kim DH, Ziemlewicz TJ, Dahiya N, Pickhardt P. Diagnostic and procedural intraoperative ultrasound: technique, tips and tricks for optimizing results. Br J Radiol. 2021 May 1;94(1121):20201406. PMCID: PMC8506184.
- 24. \*Swietlik JF, Knott EA, Longo KC, Abel EJ, Wells SA, Lubner MG, Laeseke PF, McCormick T, Hinshaw JL, Lee FT, Ziemlewicz TJ. Microwave ablation of adrenal tumors in patients with continuous intra-arterial blood pressure monitoring without prior alphaadrenergic blockade: safety and efficacy. May 29, 2020. Cardiovascular and Interventional Radiology Journal.
- 25. Blitzer G, Wojciesznski A, Abel EJ, Best S, Lee FT, Hinshaw JL, Wells S, Ziemlewicz TJ, Lubner MG, Alexander M, Yadav P, Mittauer K, Bayouth JE, Floberg J, Cooley G, Harari PM, Bassetti M. Combining Stereotactic Body Radiotherapy and Microwave Ablation appears safe and effective for renal cell carcinoma in an early series. Urology. 2020.
- 26. **Ziemlewicz TJ**, Hinshaw JL, Lubner MG, Knott EA, Willey BJ, Lee FT Jr, Brace CL. Radiofrequency and Microwave Ablation in a Porcine Liver Model: CT and Ultrasound Radiologic-Pathologic Correlation. International Journal of Hyperthermia. Int J Hyperthermia. 2020. 37(1), 799-807.
- 27. Zarling, L., Emamekhoo, H., Bhutani, G., Ziemlewicz, T., Matkowskyj, K. A., & Kyriakopoulos, C. E. Polycystic liver disease in a patient with metastatic renal cell carcinoma: A case report. Anticancer Research, 2020. 40(3), 1527-1534. doi:10.21873/anticanres.14098
- 28. \*Longo K, Zlevor A, Laeseke P, Swietlik JF, Knott EA, Rodgers AC, Lu M, Zhang X, Xu Z,



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Wagner M, Periyasamy S, Lee FT Jr, **Ziemlewicz TJ.** Histotripsy ablations in a porcine liver model: Feasibility of respiratory motion compensation by alteration of the ablation zone prescription shape. CardioVascular and Interventional Radiology, April 2020. 43(11), 1695-1701.

- Shapiro, D.D., Wells, S.A., Best, S.L., Hedican, S.P., Ziemlewicz, T.J., Lubner, M.G., Hinshaw, J.L., Lee, F.T., Jr, Jarrard, D.F., Richards, K.A., Downs, T.M., Allen, G.O., Nakada, S.Y., Abel, E.J. Comparing Outcomes for Patients with Clinical T1b Renal Cell Carcinoma Treated With Either Percutaneous Microwave Ablation or Surgery. January 2020. Urology. 135, 88-94.
- Dreyfuss L, Wells SA, Best SL, Hedican SP, Ziemlewicz TJ, Lubner MG, Hinshaw JL, Lee FT Jr., Nakada SY, Abel EJ. Development of a risk stratified approach for follow-up imaging after percutaneous thermal ablation of sporadic stage one renal cell carcinoma. December 2019. Urology. 134, 148-153.
- 31. Maciolek KA, Abel EJ, Posielski NM, Hinshaw JL, Lubner MG, Lee FT Jr, Ziemlewicz TJ, Wells SA. Tumor location does not impact oncologic outcomes for percutaneous microwave ablation of clinical T1a renal cell carcinoma. Eur Radiol 2019 Nov;29(11):6319-6329
- Mancia L, Vlaisavljevich E, Yousefi N, Rodriguez M, Ziemlewicz TJ, Lee FT Jr, Henann D, Franck C, Xu Z, Johnsen E. Modeling tissue-selective cavitation damage. Phys Med Biol. 2019 Oct 22.
- 33. Harringa, JB, Bracken RL, Davis JC, Mao L, Kitchin DR, Robbins JB, Ziemlewicz TJ, Pickhardt PJ, Reeder SB, Repplinger MD. Prospective Evaluation of MRI Compared with CT for the Etiology of Abdominal Pain in Emergency Department Patients With Concern for Appendicitis. J Magn Reson Imaging 2019; 50:1651-1658
- 34. Knott EA, Swietlik J, Longo K, Watson R, Green C, Abel EJ, Lubner MG, Hinshaw LJ, Smolock A, Lee FT, Xu Z, Ziemlewicz TJ. Robotically-Assisted Sonic Therapy for Renal Ablation in a Live Porcine Model: Initial Preclinical Results. August 2019. Journal of Vascular and Interventional Radiology, 30(8), 1293-1302.
- 35. Longo KC, Knott EA, Watson RF, Sweitlik JF, Vlaisavljevich E, Smolock AR, Xu Z, Cho CS, Mao L, Lee FT Jr, and Ziemlewicz TJ. Robotically Assisted Sonic Therapy (RAST) for Noninvasive Hepatic Ablation in a Porcine Model: Mitigation of Body Wall Damage with a Modified Pulse Sequence. 15 July 2019. Cardiovascular and Interventional Radiology, 42(7), 1016-1023
- Pohlman RM, Turney, MR, Brace CL, Ziemlewicz, TJ, & Varghese, T. Two-dimensional ultrasound-computed tomography image registration for monitoring percutaneous hepatic intervention. 2019 April; Medical Physics, 46(6), 2600-2609.



- 37. Swietlik JF, Longo KC, Knott EA, Hinshaw JL, Brace CL, Alexander M, Lubner MG, Wells SA, Lee FT Jr, Ziemlewicz TJ. Percutaneous microwave tumor ablation is safe in patients with cardiovascular implantable electronic devices: A single institution retrospective review. J Vasc Interv Radiol. 2019 March; 30(3): 396-400. PMID: 30819482
- Jang, S., Graffy, P. M., Ziemlewicz, T. J., Lee, S. J., Summers, R. M., & Pickhardt, P. J. (2019). Opportunistic osteoporosis screening at routine abdominal and thoracic CT: Normative L1 trabecular attenuation values in more than 20 000 adults. Radiology, 291(2), 360-367.
- 39. Posielski NM, Bui A, Wells SA, Best SL, Mankowski-Gettle L, Ziemlewicz TJ, Lubner MG, Hinshaw JL, Lee FT Jr, Allen GL, Nakada SY, Abel EJ. Risk factors for complications and non-diagnostic results following 1155 consecutive percutaneous core renal mass biopsies. J Urol 2019 Feb 5; Journal of Urology, 201(6), 1080-1086.
- Pohlman RM, Varghese T, Jiang J, Ziemlewicz TJ, Alexander ML, Wergin KL, Hinshaw JL, Lubner MG, Wells SA, Lee FT Jr. Comparison of Displacement Tracking Algorithms for in Vivo Electrode Displacement Elastography. Ultrasound Med Biol. 2019 Jan:45(1): 218-232.
- 41. Grimes MD, Zorn KE, Wittmann TA, Best SL, Hinshaw JL, Lee FT Jr., Lubner MG, Ziemlewicz TJ, Wells SA, Nakada SY, Abel EJ. Outcomes are similar for small sporadic renal cell carcinoma following surgery or percutaneous thermal ablation. J Urol 2018:X(x):xx-xx.
- 42. Wells SA, **Ziemlewicz TJ**, Lubner MG. Primer on Percutaneous Ablation of Benign Liver Tumors. Clin Liver Dis (Hoboken). 2018 Oct 2;12(3):69-73. PMCID: PMC6385919.
- 43. Wells SA, **Ziemlewicz TJ**, Lubner MG. Primer on percutaneous ablation of benign liver tumors. Clinical Liver Disease 2018; 12(10): 69-73.
- 44. Maciolek KA, Abel EJ, Best SL, Emamekhoo H, Averill SA, Ziemlewicz TJ, Lubner MG, Hinshaw JL, Lee FT Jr. Wells SA. Percutaneous Microwave Ablation for Local Control of Metastatic Renal Cell Carcinoma. Abdom Radiol (NY). 2018 Sep;43(9):2446-2454. PMID: 29464274.
- 45. Smolock AR, Cristescu MM, Hinshaw A, Woo KM, Wells SA, Ziemlewicz TJ, Lubner MG, Davlie PS, Louis Hinshaw J, Brace CL, Ozkan OS, Lee FT Jr., Laeseke P. Combination Transarterial Chemoembolization and Microwave Ablation Improves Local Tumor Control for 3-5 cm Hepatocellular Carcinoma When Compared with Transarterial Chemoembolization Alone. Abdom Radiol (NY). 2018 Sep; 43(9): 2497-2504.
- 46. Lee SJ, Graffy PM, Zea RD, Ziemlewicz TJ, Pickhardt PJ. Future Osteoporotic Fracture Risk Related to Lumbar Vertebral Trabecular Attenuation Measured at Routine Body CT. J Bone Miner Res. 2018 May; 33(5): 860-867.



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- Smolock AR, Cristescu MM, Vlaisavljevich E, Gendron-Fitzpatrick A, Green C, Cannata J, Ziemlewicz TJ, Lee FT Jr. Robotically Assisted Sonic Therapy as a Noninvasive Nonthermal Ablation Modality: Proof of Concept in a Porcine Liver Model. Radiology. 2018 May; 287(2): 485-493.
- Repplinger MD, Pickhardt PJ, Robbins JB, Kitchin DR, Ziemlewicz TJ, Hetzel SJ, Golden SK, Harringa JB, Reeder SB. Prospective Comparison of the Diagnostic Accuracy of MR Imaging versus CT for Acute Appendicitis. Radiology. 2018 Aug; 288(2): 467-475.
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- 54. Klapperich ME, Abel EJ, Ziemlewicz TJ, Best S, Lubner MG, Nakada SY, Hinshaw JL, Brace CL, Lee FT Jr, Wells SA. Effect of tumor complexity and technique on efficacy and complications after percutaneous microwave ablation of stage T1a renal cell carcinoma: a single-center, retrospective study. Radiology. 2017 Jul;284(1):272-280. (CDD 20%, M 33%, DA 20%, A 20%, W 20%)
- 55. Graffy PM, Lee SJ, Ziemlewicz TJ, Pickhardt PJ. Prevalence of vertebral compression fractures on routine CT scans according to L1 Trabecular Attenuation: determining relevant thresholds for opportunistic osteoporosis screening. AJR Am J Roentgenol. 2017 Jun 22:1-6.
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Computer-aided detection of colorectal polyps at CT colonography: prospective clinical performance and third-party reimbursement. AJR AM J Roentgenol. 2017 Jun;208(6):1244-1248.

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- 59. Grimes M, Zorn K, Wittmann T, Best S, Hinshaw JL, Lee, FT Jr, Lubner MG, Ziemlewicz TJ, Wells S, Nakada S, Abel EJ. Outcomes Are Similar for Small Sporadic Renal Cell Carcinoma Following Surgery or Percutaneous Thermal Ablation. World Journal of Urology. Submitted 4/2017.
- 60. Jay R, Heckman JE, Hinshaw L, Best S, Lubner MG, Jarrard DF, Downs TM, Nakada SY, Lee FT Jr, Huang W, **Ziemlewicz T**. Multi-quadrant biopsy technique improves diagnostic ability in large heterogeneous renal masses. Urol Oncol 2017 Mar; 35(3): 119.
- \*Blute ML Jr, Ziemlewicz TJ, Lang JM, Kyriakopoulos C, Jarrard DF, Downs TM, Grimes M, Shi F, Mann MA, Abel EJ. Metastatic tumor burden does not predict overall survival following cytoreductive nephrectomy for renal cell carcinoma; a novel 3-Dimensional volumetric analysis. Urology. 2017 Feb;100:139-144 doi: 10.1016/j.urology.2016.09.016. 27667156 (CDD 33%, M 50%, DA 33%, A 20%, W 25%)
- 62. Bannas P, Bookwalter CA, Ziemlewicz T, Motosugi U, Munoz Del Rio A, Potretzke TA, Nagle SK, Reeder SB. Combined gadoxetic acid and gadofosveset enhanced liver MRI for detection and characterization of liver metastases. Eur Radiol. 2017 Jan;27(1):32-40 PMID: 27137648 (CDD 10%, M 0%, DA 25%, A 10%, W 10%)
- 63. Kleedehn M, Kim DH, Lee FT Jr, Lubner MG, Robbins JB, Ziemlewicz TJ, Hinshaw JL. Preoperative pulmonary nodule localization: a comparison of methylene blue and hook wire techniques. AJR Am J Roentgenol. 2016 Dec;207(6):1334-1339 (CDD 10%, M 10%, DA 5%, A 10%, W 10%).
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- 65. **Ziemlewicz** TJ, Maciejewski A, Binkley N, Brett AD, Brown JK, Pickhardt PJ. Opportunistic Quantitative CT Bone Mineral Density Measurement at the Proximal Femur



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Using Routine Contrast-Enhanced Scans: Direct Comparison with DXA in 355 Adults. J Bone Miner Res. 2016 Oct; 31(10):1835-1840. (CDD 50%, M 50%, DA 10%, A 50%, W 90%)

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- 68. Lee FT Jr, Ziemlewicz TJ. Introduction to the special section on interventional abdominal radiology. Abdom Radiol (NY). 2016 Apr;41(4):585. (CDD 50%, M 0%, DA N/A, A N/A, W 50%)
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- 70. Lee SJ, Binkley N, Lubner MG, Bruce RJ, Ziemlewicz TJ, Pickhardt PJ. Opportunistic screening for osteoporosis using the sagittal reconstruction from routine abdominal CT for combined assessment of vertebral fractures and density. Osteoporosis Int. 2016 Mar; 27(3):1131-6. (CDD 10%, M 10%, DA 5%, A 10%, W 10%)
- 71. Cristescu M, Abel EJ, Wells S, Ziemlewicz TJ, Hedican SP, Lubner MG, Hinshaw JL, Brace CL, Lee FT Jr. Percutaneous Microwave Ablation of Renal Angiomyolipomas. Cardiovasc Intervent Radiol. 2016 Mar;39(3):433-40 (CDD 10%, M 20%, DA 25%, A 25%, W 10%)
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- 74. Harari CM, Magagna M, Bedoya M, Lee FT Jr, Lubner MG, Hinshaw JL, Ziemlewicz T, Brace CL. Microwave Ablation: Comparison of Simultaneous and Sequential Activation of Multiple Antennas in Liver Model Systems. Radiology. 2016 Jan; 278(1):95-103. (CDD 10%, M 10%, DA 5%, A 10%, W 10%)



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- 76. \*Abel EJ, Heckman JE, Hinshaw L, Best S, Lubner M, Jarrard DF, Downs TM, Nakada SY. Lee FT Jr. Huang W. Ziemlewicz T. Multi-Quadrant Biopsy Technique Improves Diagnostic Ability in Large Heterogeneous Renal Masses. J Urol. 2015 Oct; 194(4):886-91 (CDD 25%, M 50%, DA 25%, A 25%, W 25%)
- 77. Prince J, Bultman E, Hinshaw JL, Drewry A, Blute M, Best S, Lee FT Jr, Ziemlewicz TJ, Lubner MG, Shi F, Nakada SY, Abel EJ. Patient and Tumor Characteristics Can Predict Non-Diagnostic Renal Mass Biopsy Findings. J Urol. 2015 Jun;193(6):1899-904. (CDD 10%, M 10%, DA 10%, A 5%, W 5%)
- 78. Moreland AJ, Lubner MG, Ziemlewicz TJ, Kitchin DR, Hinshaw JL, Johnson AD, Lee FT Jr, Brace CL. Evaluation of a Thermoprotective Gel for Hydrodissection During Percutaneous Ablation: In-Vivo Results. Cardiovasc Intervent Radiol. 2015 Jun;38(3):722-30. (CDD 10%, M 10%, DA 10%, A 5%, W 10%)
- 79. Ziemlewicz TJ, Hinshaw JL, Lubner MG, Brace CL, Alexander ML, Agarwal PA, Lee FT Jr. Percutaneous Microwave Ablation of Hepatocellular Carcinoma: Initial Clinical Results with 107 Tumors. J Vasc Interven Radiol. 2015 Jan;26(1):62-8. (CDD 50%, M 0%, DA 90%, A 100%, W 80%)
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- 82. Ziemlewicz TJ, Wells SA, Lubner MG, Musat AL, Hinshaw JL, Cohn AR, Lee FT Jr. Microwave Ablation of Giant Hepatic Cavernous Hemangiomas. Cardiovasc Intervent Radiol. 2014 Oct; 37(5): 1299-1305. (CDD 50%, M 0%, DA 80%, A 80%, W 75%)
- 83. Hinshaw JL, Lubner MG, Ziemlewicz TJ, Lee FT Jr, Brace CL. Percutaneous Tumor Ablation Tools: Microwave, Radiofrequency, or Cryoablation What Should You Use and Why? Radiographics. 2014 Sep-Oct; 34(5): 1344-62. (CDD 10%, M 0%, DA N/A, A N/A, W 10%)
- 84. \*Moreland AJ, Ziemlewicz TJ, Best SL, Hinshaw JL, Lubner MG, Alexander ML, Brace CL, Kitchin DR, Hedican SP, Nakada SY, Lee FT Jr, Abel EJ. High-Powered Microwave Ablation of T1a Renal Cell Carcinoma: Safety and Initial Clinical Evaluation. J Endourol. 2014 Sep; 28(9): 1046-52. (CDD 25%, M 50%, DA 25%, A 50%, W 25%)



- Kitchin DR, Lubner MG, Ziemlewicz TJ, Hinshaw JL, Alexander ML, Brace CL, Lee FT Jr. Microwave Ablation of Malignant Hepatic Tumors: Intraperitoneal Aggressive Case Selection. Int J Hyperthermia. 2014 Aug; 30(5): 299-305. (CDD 20%, M 20%, DA 25%, A 10%, W 10%)
- Grayev A, Ziemlewicz T, Kim D, Romandine A, Robbins J. Residents' Perception of a Novel End-of Rotation Evaluation Method. Acad Radiol. 2013 Mar; 20(3): 312-319. (CDD 25%, M 0%, DA 25%, A 25%, W 25%)
- 87. Marin D, Dale BM, Bashir MR, Ziemlewicz TJ, Ringe KI, Boll DT, Merkle EM. Effectiveness of a three-dimensional dual gradient echo two-point Dixon technique for the characterization of adrenal lesions at 3 Tesla. Eur Radiol. 2012 Jan; 22(1):259-68. Fellowship
- 88. Bashir MR, Husarik DB, Ziemlewicz TJ, Gupta RT, Boll DT, Merkle EM. Liver MRI in the hepatocyte phase with gadolinium-EOB-DTPA: does increasing the flip angle improve conspicuity and detection rate of hypointense lesions? J Magn Reson Imaging. 2012 Mar;35(3):611-6. Fellowship
- Phan KL, Magalhaes A, Ziemlewicz T, Fitzgerald D, Green C, Smith W. Neural Correlates of Telling Lies: A Functional Magnetic Resonance Imaging Study at 4 Tesla. Academic Radiology 2005; 12(2), 164-172. Medical School

#### **Non-Refereed/Review Articles**

- Ziemlewicz TJ, Smolock AR, Brace CL. Reply to: Indication of Percutaneous Microwave Ablation for the Treatment of Hepatic Adenomas: Squaring the Circle. J Vasc Interven Radiol. 2016 Jun; 27(6):933-34.. (CDD 50%, M 0%, DA N/A, A N/A, W 50%)
- Ziemlewicz TJ, Wells SA, Lubner MG, Brace CL, Lee FT Jr, Hinshaw JL. Hepatic Tumor Ablation. Surg Clin North Am. 2016 Apr;96(2):315-39. doi: 10.1016/j.suc.2015.12.006. (CDD 95%, M 0%, DA N/A, A N/A, W 90%)
- Wells SA, Hinshaw JL, Lubner MG, Ziemlewicz TJ, Brace CL, Lee FT Jr. Liver Ablation: Best Practice. Radiol Clin North Am. 2015 Sep; 53(5): 933-71 (CDD 10%, M 25%, DA N/A, A N/A, W 10%)
- Brace CL, Ziemlewicz TJ, Hinshaw JL, Lubner MG, Lee FT Jr. Microwave Tumor Ablation: Cooperative Academic-industry Development of a High-power Gas-cooled System with Early Clinical Results. SPIR Proceeding 8584, Energy-based treatment of tissue and assessment VII. Feb 26, 2013. (CDD 10%, M 0%, DA 50%, A 50%, W 25%)
- Lubner MG, Brace CL, Ziemlewicz TJ, Hinshaw JL, Lee FT Jr. Microwave Ablation of Hepatic Malignancy. Semin Intervent Radiol 2013; 30(01): 056-066. DOI: 10.1055/s-0033-1333654 (CDD 5%, M 0%, DA N/A, A N/A, W 5%)



#### Monographs or Books/ Book Chapters

1. Lubner MG, Brace CL, Ziemlewicz T, Hinshaw JL, Lee FT. Microwave ablation of hepatic malignancies. Seminar of Radiology. Volume 30, Number 1, 2012.

#### **Invited Research Presentations**

#### **Scientific Presentations**

#### Local

- Couillard AB, Rossebo AE, Kisting MA, Zlevor AM, Hartung MP, Mankowski-Gettle L, Hinshaw JL, Pickhardt PJ, Foltz ML, Lee FTL, **Ziemlewicz, TJ** Percutaneous Biopsies in the Abdomen and Pelvis Guided by CT Electromagnetic Navigation. Zachary Clark Research Symposium; Madison, WI, April 2022. Awarded Best Resident Oral Presentation.
- 2. Mukerjee S, **Ziemlewicz TJ**, Lubner MG, Hinshaw JL, Lee FT Jr., Wells SA. Microwave ablation of RCC: Evolution on surveillance CT and MRI. Zach Clark Radiology Research Symposium. Madison, WI. May 12, 2017.
- \*Comstock J (medical student, Shapiro program), Ziemlewicz TJ, Lubner MG, Wells SA, Lee FT Jr, Hinshaw, JL. The Efficacy and Safety of Image-Guided Percutaneous Microwave Ablation in Treating Metastatic Tumors. University of Wisconsin School of Medicine, Shapiro Student Research Forum. November 21, 2016.
- 4. Wong VK, Abel EJ, Hinshaw JL, Best SL, Ziemlewicz TJ, Lubner MG, Lee FT Jr. Wells SA. Thermal ablation of small renal masses: Should biopsy take place prior to or during the ablation procedure? University of Wisconsin Department of Radiology, John J. Juhl Resident and Fellow Research Symposium. Health Science Learning Center. Madison, WI. April 30, 2016.
- Lee MH, Hinshaw JL, Wells SA, Zeimlewicz TJ, Lubner MG. Guilt or Guilty by Association? Percutaneous Ablation Complications and Their Mimics. University of Wisconsin Department of Radiology, John J. Juhl Resident and Fellow Research Symposium. Madison, WI. April 30, 2016.
- Grimes MD, Whittmann T, Best SL, Hinshaw JL, Lee FT, Lubner MG, Ziemlewicz TJ, Wells SA, Nakada SY, Abel EJ. Comparing outcomes for percutaneous microwave ablation, cryoablation, and surgery for treatment of sporadic renal cell carcinoma ≤ 4cm. Abstract #10; Podium Session I: Kidney Cancer; Wisconsin Urological Society 2016 Annual Meeting; Madison, Wis; April 16, 2016.



- Khanna S, Abel EJ, Ziemlewicz T, Wells S, Kapperich M, Wittman T, Lee F, Lubner M, Hinshaw JL, Nakada S, Best SL. Preoperative and operative variables predict which patients can be discharged without admission after percutaneous ablation of RCC. Abstract #6; Podium Session I: Kidney Cancer; Wisconsin Urological Society 2016 Annual Meeting; Madison, Wis; April 16, 2016.
- Mann MA, Blute ML, Ziemlewicz T, Lang JM, Kyriakopoulos C, Jarrard DF, Downs TM, Richards KA, Shi FF, Abel EJ. Metastatic tumor burden does not predict poor outcomes; a three dimensional volumetric analysis. Abstract #11; Podium Session I: Kidney Cancer; Wisconsin Urological Society 2016 Annual Meeting; Madison, Wis; April 16, 2016.
- Wittmann TA, Best SL, Wells SA, Hinshaw JL, Lee FT, Lubner MG, Ziemlewicz TJ, Nakada SY, Abel EJ. Patient outcomes are improved when renal mass biopsy is performed prior to the day of thermal ablation. Abstract #19; Podium Session I: Kidney Cancer; Wisconsin Urological Society 2016 Annual Meeting; Madison, Wis; April 16, 2016.
- \*Heckman JE (Urology resident), Ziemlewicz TJ, Best SL, Wells SA, Lubner MG, Hinshaw JL, Lee Jr. FT, Shi FF, Nakada SY, Abel EJ. Role of biopsy in management of large, locally advanced, and metastatic renal masses. Abstract #12; Podium Session I: Kidney Wisconsin Urological Society 2016 Annual Meeting; Madison, Wis; April 16, 2016.
- Klapperich ME, Wells SA, Best SL, Ziemlewicz TJ, Lubner MG, Nakada SY, Hinshaw JL, Brace CL, Lee FT Jr, Abel EJ. Safety and early oncologic efficacy of percutaneous microwave ablation of 100 T1a renal cell carcinoma. University of Wisconsin School of Medicine, Shapiro Student Research Forum. November 23, 2015.
- \*Dinan J (undergraduate student, RUSCH program), Pickhardt PJ, Lubner MG, Ziemlewicz TJ. Computed Tomography Hepatosplenic Volumetric Analysis for Determining Normative Values. RUSCH Student Research Presentations. Madison, WI July 2015
- \*Hickey PD (undergraduate student, RUSCH program), Pickhardt P, Ziemlewicz T. Evaluating if Donor Kidney Cortical Volumes are Predictive of Renal Function in Transplant Patients. RUSCH Student Research Presentations Madison, WI July 2014.
- 14. \*Macijewski A (undergraduate student, RUSCH program), Ziemlewicz T, Pickhardt P. Analysis of Contrast Effects on the Use of Abdominal Computed Tomography Scans for Osteoporosis Screening. RUSCH Student Research Presentations Madison, WI July 2013.



### Regional

- Ruger, L, Yang, E, Gannon J, Sheppard, H, Coutermarsh-Ott, S, Ziemlewicz, T, Dervisis, N, Allen, I, Daniel, G, Tuohy, J, Vlaisavljevich, S. Mechanical highintensity focused ultrasound (histotripsy) in dogs with spontaneously occuring soft tissues sarcomas. Oct 23-27, 2022, Bethesda, MD
- 16. Kisting, M, White, J, Periyasamy S, Kutlu, A, Zhang, X, Laeseke, P, Wagner, Martin G, Vlaisavlejevich, E, Lee, F, Ziemlewicz, T. Safety and eficacy of volumetric histotripsy delivery through overlying gas-filled bowel near the focal point in an ex vivo swine model. Oct 23-27, 2022 Bethesda, MD
- Coulliard, A, Kisting, M, Rossebo, A, Knott, E, Ziemlewicz, T, Stratchko, L, Lubner, M, Knavel, E, Swietlik, Laeseke, P, Abel, J, Lee, F. A Comparison Study of Histotripsy and Cryoablation for Renal Ablation in a Porcine Model. June 12, 2022, SIR Boston, MA
- 18. Knott, E, Zlevor, A, Hinshaw, JL, Laeseke, P, Longhurst, C, Bradley, C, Couillard, A, Xu, Zhen, Lee, F, **Ziemlewicz, T.** Histotripsy vs. microwave ablation in the liver: a comparison study in a porcine model. Aug 13,2022,
- Mauch SC, Zlevor AM, Knott EA, Couillard AB, Periyasamy S, Williams EC, Swietlik JF, Laeseke PF, Zhang X, Xu Z, Abel EJ, Lee FT, Ziemlewicz TJ. Hepatic and Renal Histotripsy in an Anticoagulated Porcine Model. Society of Interventional Oncology Annual Scientific Meeting, San Francisco, CA, March 2022. Awarded Best Debut Oral Abstract Presentation.
- 20. Maciolek KA, Wells SA, Averill SA, Best S, Ziemlewicz TJ, Lubner MG, Hinshaw JL, Lee FT Jr., Nakada SY, Abel EJ. Percutaneous thermal ablation of metastatic renal cell carcinoma offers durable local control at very low morbidity. Wisconsin Urologic Society Annual Meeting. Elkhart Lake, WI. April 21, 2017.
- 21. Repplinger MD, Pickhardt PJ, Bracken RL, Kitchin DR, Robbins JB, Ziemlewicz TJ, Reeder SB. MR versus CT imaging for identifying the origin of abdominal pain in emergency department patients. 25th Annual Emergency Medicine Research Forum (MCW). Milwaukee, WI. April 6, 2017.
- 22. Wells SA, Ziemlewicz TJ, Mithqal A, Wheeler KM, Schenkman NS, Hinshaw JL, Best SL, Abel EJ, Lee FT Jr., Lubner MG. Split-bolus CT-urography after microwave ablation of renal cell carcinoma: feasibility, image quality and dose reduction. RSNA 102nd Scientific Assembly and Annual Meeting. Chicago, IL. November 27, 2016.



- 23. Wells SA, Abel EJ, Ziemlewicz TJ, Lubner MG, Hinshaw JL, Lee FT Jr., Best SL. Patient disposition after percutaneous thermal ablation of localized RCC: Risk factors associated with need for hospitalization. RSNA 102nd Scientific Assembly and Annual Meeting. Chicago, IL. November 27, 2016.
- 24. Lim A, Heckman J, Ziemlewicz T, Best S, Wells S, Lubner S, Hinshaw JL, Shi F, Lee F, Nakada S, Abel EJ. Small renal mass biopsy is cost effective and reduces surgery for benign tumors. Abstract #12: Adrenal/Kidney Malignant/Benign Podium Session; 90th Annual Meeting of the North Central Section of the AUA; Chicago, IL. September 8, 2016.
- 25. Grimes MD, Mann MA, Blute ML, Ziemlewicz TJ, Lang JM, Kryiakopoulos C, Jarrard DF, Downs TM, Richards KA, Shi F, Abel EJ. Metastatic tumor burden does not predict poor outcomes; a three dimensional volumetric analysis. Abstract #14: Adrenal/Kidney Malignant/Benign Podium Session; 90th Annual Meeting of the North Central Section of the AUA; Chicago, IL. September 8, 2016.
- 26. Lim A, Heckman J, Ziemlewicz T, Best S, Wells S, Lubner M, HInshaw JL, Lee F, Nakada S, Abel EJ. Role of biopsy in management of large, locally advanced, and metastatic renal masses. Abstract #19: Adrenal/Kidney Malignant/Benign Podium Session; 90th Annual Meeting of the North Central Section of the AUA; Chicago, IL. September 8, 2016.
- 27. Lim A, Grimes M, Wittmann T, Best S, Hinshaw JL, Lee F, Lubner M, Ziemlewicz T, Wells S, Nakada S, Abel EJ. Should pathologic diagnosis be obtained prior to renal mass ablation? Poster #48: Adrenal/Kidney Poster Session; 90th Annual Meeting of the North Central Section of the AUA; Chicago, IL. September 8, 2016.
- 28. John B. Harringa, BS, Sonja Kinner, MD, Erica L. Riedesel, MD, Kara G. Gill, MD, Timothy J. Ziemlewicz, MD, Jessica B. Robbins, MD, Doug R. Kitchin, MD, Perry J. Pickhardt, MD, Scott B. Reeder, MD, PhD, Michael D. Repplinger, MD, PhD. Prospective Comparison of Contrast-Enhanced MRI versus Contrast-Enhanced CT Imaging for Suspected Appendicitis in Children. *Emergency Medicine Research Forum Oral Presentation (Harringa)*. Medical College of Wisconsin, Milwaukee, WI. April 14, 2016.
- Pickhardt PJ, Repplinger MD, Ziemlewicz TJ, Robbins JB, Kitchin DR, Reeder SB. Prospective trial evaluating contrast-enhanced MR imaging for suspected appendicitis: comparison against MDCT and surgical pathology reference standard. Emergency Medicine Research Forum, Medical College of Wisconsin, Milwaukee, WI, April 2015.



SCHOOL OF MEDICINE AND PUBLIC HEALTH

CURRICULUM VITAE

- 30. Kelvin S. Wong, Sara L. Best, Anna J. Moreland, Timothy J. Ziemlewicz, J. Louis Hinshaw, Fred T. Lee Jr., Christopher L. Brace, Meghan G. Lubner, Marci L. Alexander, Stephen Y. Nakada, E. Jason Abel. Safety and Feasibility of Percutaneous Microwave Ablation for Renal Parenchymal Tumors. Wisconsin Urological Society, March 10, 2013. Best Abstract
- 31. Ziemlewicz T, Shah M. Interpretation Accuracy Following Six and Twelve Months of Training in a Diagnostic Radiology Residency. Michigan Radiologic Society RFS Novi, MI January 2008. Residency
- 32. Krijanovski Y, Ziemlewicz T, Chottiner E. Spontaneous Venous Thrombosis in Male with Congenital Dysgenesis of Inferior Vena Cava and Heterozygous Factor V Leiden Mutation. ACP Michigan Chapter Scientific Meeting Troy, MI May 2005. Internship

### National/International

- 1. Knott EA, Zlevor AM, Hinshaw JL, Laeseke PF, Couillard AB, Lee Jr. FT, Ziemlewicz TJ. A comparison study between an ultrasound-guided non-invasive ablation modality (histotripsy) vs. microwave ablation in a porcine model. Society of Abdominal Radiology, February 2022.
- 2. Rossebo AE, Zlevor AM, Knott EA, Mao L, Couillard AB, Ziemlewicz TJ, Hinshaw JL, Lubner MG, Wells S, Abel EJ, Stratchko L, Laeseke P, Lee FT. Percutaneous microwave ablation for soft tissue retroperitoneal tumors. Society of Interventional Oncology, February 2022,
- 3. Knott EA, Ziemlewicz TJ, Swietlik JF, Zlevor AM, Hinshaw JL, Lubner MG, Couillard AB, Wells SA, Laeseke PF, Alexander ML, Lee FT. Treatment efficacy and outcomes of microwave ablation for treatment of colorectal cancer liver metastasis: A singlecenter retrospective analysis. Society of Interventional Oncology, February 2022.
- 4. Knott EA, Zlevor AM, Hinshaw JL, Laeseke PF, Longurst C, Frank J, Bradley CW, Couillard AB, Xu Z, Lee Jr. FT, Ziemlewicz TJ. Histotripsy vs. microwave ablation in the liver: a comparison study in a porcine model. Society of Interventional Oncology, February 2022.
- 5. Knott EA, Hinshaw JL, Laeseke P, Frank J, Zlevor AM, Stoffregen W, Bravo M, Lee FT, Ziemlewicz T. A comparison study of microwave ablation vs. histotripsy for liver ablation in a swine model performed under GLP conditions. Society of Interventional Oncology, Presented Virtually, February 2021.
- 6. Periyasamy S, Wagner M, Swietlik J, Knott EA, Zlevor A, Lee FT, Ziemlewicz T, Laeseke P. Guidance and assessment of histotripsy ablations using C-arm imaging systems. Society of Interventional Oncology, Presented Virtually, February 2021.
- 7. Archer AW, Knott EA, Ziemlewicz TJ, Lubner SJ, Swietlik JF, Weber SM, Zlevor AM, Longhurst C, Hinshaw JL, Lubner MG, Mulkerin DL, Abbott DE, Deming D,



CURRICULUM VITAE

LoConte NK, Uboha N, Couillard AB, Wells SA, Laeseke PF, Alexander ML, Lee Jr. FT. Treatment efficacy and outcomes of microwave ablation for treatment of colorectal cancer liver metastasis: A single-center retrospective analysis. Americas Hepato-Pancreato-Biliary Association 2021, Miami Beach, August 2021.

- 8. Swietlik J, Laeseke P, Periyasamy S, Knott EA, Zlevor A, Lee Jr. FT, **Ziemlewicz T**, Speidel M, Wagner M. Optimization of image acquisition for histotripsy target prediction using cone-beam CT and fluoroscopy, CIRSE, September 2021.
- Swietlik J, Zlevor A, Knott EA, Xu Z, Lee Jr. FT, Ziemlewicz TJ. Noninvasive Thyroid Ablation Using Histotripsy: Proof of Concept Study in a Porcine Model. SGCR & WIRES, Presented Virtually, August 2021. Awarded Runner up WIRES Oral.
- Knott EA, Longo K, Swietlik J, Xu Z, Vidal-Jove J, Zlevor A, Zhang X, Smolock AR, Vlaisavljevich E, Hall T, Lee FT Jr, Ziemlewicz T. Histotripsy: a novel ablation modality in animal models and early clinical results. Spectrum Interventional Oncology and Interventional Radiology, Miami Beach, FL, January 18-21, 2020.
- 11. Zlevor AM, Knott EA, Ziemlewicz TJ, Laeseke P, Wells S, Mankowski Gettle L, Mauch S, Lubner MG, Hinshaw JL, and Lee Jr. FT. Complication rate and effect of pleural blood patching in CT fluoroscopically-guided lung biopsies and microwave ablations. Spectrum Interventional Oncology and Interventional Radiology, Miami Beach, FL, January 18-21, 2020.
- 12. Knott EA, Cristescu MM, Smolock AR, Zlevor A, Wells SA, Lubner MG, Hinshaw JL, Lee FT Jr, Ziemlewicz TJ. Intermediate-term Outcomes of Percutaneous Microwave Lung Tumor Ablation: A Single Center Experience. Society of Interventional Oncology, New Orleans, Louisiana, January 31-February 3, 2020.
- Knott EA, Longo K, Swietlik J, Xu Z, Vidal-Jove J, Zlevor A, Zhang X, Smolock AR, Vlaisavljevich E, Hall T, Lee FT Jr, **Ziemlewicz T.** Histotripsy: a novel ablation modality in animal models and early clinical results. Society of Interventional Oncology, New Orleans, Louisiana, January 31-February 3, 2020.
- 14. Longo K, Zlevor A, Knott EA, Swietlik J, Smolock A, Mau L, Laeseke PF, Xu Z, Lee FT, Ziemlewicz TJ. Mitigation of respiratory motion effects on Histotripsy ablations in porcine liver models by alteration of ablation zone prescription shape. Society of Interventional Oncology, New Orleans, Louisiana, January 31-February 3, 2020.
- 15. Zlevor AM, Knott EA, Lee Jr. FT, Laeseke P, Wells S, Lubner MG, Hinshaw JL, and Ziemlewicz TJ. Treatment of symptomatic hepatic cysts: simultaneous aspiration and microwave ablation. Society of Interventional Oncology, New Orleans, Louisiana, January 31-February 3, 2020.
- Swietlik J, Longo K, Knott E, Mauch S, Zlevor A, Vidal Jove J, Laeseke P, Xu Z, Lee F, Ziemlewicz T. Histotripsy imaging characteristics: Understanding post treatment findings on US, MR, CT, and cone beam CT. Society of Interventional Oncology, New Orleans, Louisiana, January 31-February 3, 2020.



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- 17. Knott EA, Longo K, Swietlik J, Xu Z, Vidal-Jove J, Zlevor A, Zhang X, Smolock A, Vlaisavljevich E, Hall T, Lee FT, Ziemlewicz T. Histotripsy: a novel ablation modality in animal models and early clinical results. Society of Abdominal Radiology, Maui, Hawaii, March 1-6, 2020.
- 18. Zlevor AM, Knott EA, Lee Jr. FT, Laeseke P, Wells S, Lubner MG, Hinshaw JL, and Ziemlewicz TJ. Treatment of symptomatic hepatic cysts: simultaneous aspiration and microwave ablation. Society of Abdominal Radiology, Maui, Hawaii, March 1-6, 2020.
- 19. Mauch S, Hinshaw JL, Wells S, Lubner M, Laeseke P, Longo K, Swietlik J, Knott E, Zlevor A, Lee F, **Ziemlewicz T.** Post Ablation Imaging Findings: From Normal to What is That? Society of Abdominal Radiology, Maui, Hawaii, March 1-6, 2020.
- 20. Zlevor AM, Knott EA, Ziemlewicz TJ, Mankowski Gettle L, Mauch S, Lubner MG, Hinshaw JL, and Lee Jr. FT. A retrospective analysis of 500 CT fluoroscopicallyauided core lung biopsies: Overall complication rate and effect of pleural blood patching. Society of Interventional Radiology, Seattle, WA, March 28- April 2, 2020.
- 21. Hall B, Vernez S, Davidson E, Laeseke P, Best S, Wells SA, Ziemlewicz TJ, Lubner M, Hedican, S, Hinshaw JL, Lee FT, Jarrard D, Richards K, Borza T, Downs T, Nakada S, Abel J. Comparing outcomes for renal angiomyolipoma treated with embolization, ablation or surgery. American Urological Association (AUA) Annual Meeting. May 15-18 2020. Washington, DC.
- 22. Periyasamy S, Knott EA, Zlevor A, Cannata J, Duryea A, Miller R, Lee F, Ziemlewicz T, Laeseke P. Feasibility of Cone-Beam CT for the Assessment of Histotripsy Ablation Zones. European Conference on Interventional Oncology 2020, Virtual. December 2, 2020.
- 23. Periyasamy S, Wagner M, Knott EA, Zlevor A, Cannata J, Duryea A, Miller R, Lee F, **Ziemlewicz T**, Laeseke P. A Respiratory Motion Characterization Technique for Predicting Histotripsy Ablation Volumes. European Conference on Interventional Oncology 2020, Virtual, December 2, 2020.
- 24. Longo K, Knott EA, Zlevor A, Laeseke P, Rodgers A, Mao L, Zhang X, Wagner M, Periyasamy S, Lee FT Jr., Ziemlewicz T. Histotripsy ablations in a porcine liver model: Compensation for respiratory motion by alteration of the ablation zone prescription shape. Cardiovascular and Interventional Radiologic Society of Europe, Presented Virtually, September 2020.
- 25. Zlevor A, Foltz M, Mauch S, Knott EA, Ziemlewicz T, Mankowski-Gettle L, Lubner M, Hinshaw JL, Lee FT Jr. Complication rate and effect of pleural blood patching in 993 CT fluoroscopically-guided core lung biopsies. Cardiovascular and Interventional Radiologic Society of Europe, Presented Virtually, September 2020.
- 26. Swietlik J, Laeseke P, Periyasamy S, Knott EA, Zlevor A, Xu Z, Lee FT Jr., **Ziemlewicz T**, Speidel M, Wagner M. A model-based approach to histotripsy



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ablation target prediction using cone beam CT and fluoroscopy. Cardiovascular and Interventional Radiologic Society of Europe, Presented Virtually, September 2020.

- Zlevor AM, Mauch S, Knott EA, Ziemlewicz T, Lee FT Jr. CT fluoroscopically-guided core lung biopsies: complication rate and effect of pleural blood patching. Society for Advanced Body Imaging, Presented Virtually, October 2020.
- 28. Dreyfuss LD, Wells SA, Best SL, Hedican SP, Ziemlewicz TJ, Lubner MG, Hinshaw JL, Lee FT Jr, Nakada SY, Abel EJ. Evaluating recurrence patterns for percutaneous microwave and cryoablation of renal cell carcinoma to optimize surveillance protocols. 2019 American Urological Association (AUA) Annual Meeting, Chicago IL. May 3-6, 2019
- 29. Pohlman RM, Lubner MG, **Ziemlewicz TJ**, Alexander ML, Lee FT Jr., Wells SA, Wergin KL, Varghese T. Displacement estimation algorithms for electrode displacement elastography in liver microwave ablation procedures. AIUM 2019. April 6-10, 2019. Orlando, FL.
- Swietlik J, Knott EA, Longo K, Zhang X, Laeseke P, Wells S, Lubner MG, Hinshaw JL, Lee FT Jr., Ziemlewicz TJ. Robotic assisted sonic therapy (RAST) for subcutaneous fat ablation in a porcine model. Society of Interventional Radiology 2019. Austin, TX. March 23-28, 2019.
- 31. Shapiro DD, Best SL, Wells SA, Ziemlewicz TZ, Lubner MG, Hinshaw JL, Lee FT Jr, Jarrard DF, Richards KA, Downs TM, Borza T, Allen GO, Nakada SY, Abel EJ. Microwave ablation has comparable oncologic outcomes vs. surgery in co-morbid patients with 4-7cm renal cell carcinoma. 2019 American Urological Association (AUA) Annual Meeting, Chicago IL. May 3-6, 2019
- Maciolek KA, Wells SA, Posielski NM, Best SL, Ziemlewicz TJ, Lubner MG, Hinshaw JL, Lee FT Jr., Abel EJ. Percutaneous microwave ablation of anterior RCC is safe and effective. Poster Presentation. American Urological Association 2019. May 3-6, 2019. Chicago, IL
- 33. Khemees TA, Bu Ai, Shapiro DD, Best SL, Wells SA, Ziemlewicz TJ, Lubner MG, Hinshaw JL, Lee Jr FT, Jarrard DF, Richards KA, Downs TM, Nakada SY, Abel EJ. Comparing patient opinions with surgeon perspectives regarding small renal mass biopsy. 2019 American Urological Association (AUA) Annual Meeting, Chicago IL. May 3-6, 2019
- 34. Swietlik JF, Knott EA, Longo KC, Wells SA, Lubner MG, Hinshaw JL, Laeseke P, Lee FT Jr, Ziemlewicz TJ. Microwave Ablation for the Treatment of Adrenal Tumors in Patients Without Prior Adrenergic Blockade: Safety and Efficacy, a Novel Approach. Poster Presentation. SIO 2019. June 8-11, 2019. Boston, Massachusetts.



- 35. Knott EA, Longo KC, Swietlik JF, Zhang X, Vlaisavljevich E, Xu Z, Lee FT Jr, Ziemlewicz TJ. Robotically Assisted Sonic Therapy (RAST) with Histotripsy for Transcostal Hepatic Ablation in a Porcine Model. Poster Presentation. SIO 2019. June 8-11, 2019. Boston, Massachusetts.
- 36. Knott EA, Longo KC, Swietlik JF, Zhang X, Vlaisavljevich E, Xu Z, Lee FT Jr, Ziemlewicz TJ. Robotically Assisted Sonic Therapy with Histotripsy as a Tissueselective Ablation Modality: Radiology and Pathology Findings. Poster Presentation. SIO 2019. June 8-11, 2019. Boston, Massachusetts
- 37. Swietlik J, Longo K, Knott E, Xu Z, Lee FT Jr., Ziemlewicz T. Robotically Assisted Sonic Therapy with Histotripsy for Noninvasive Thyroid Ablation in a Porcine Model. SIO 2019. June 8-11, 2019. Boston, Massachusetts.
- 38. Ziemlewicz TJ, Vidal-Jove J, Serres X, Vlaisavljevich E, Cannata J, Duryea A, Miller R, Lee FT Jr. Phase 1 Study of Safety and Efficacy of Hepatic Histotripsy: Preliminary Results of First-in-Man Experience with Robotically-Assisted Sonic Therapy (RAST). SIO 2019. June 8-11, 2019. Boston, Massachusetts.
- Maciolek KA, Wells SA, Posielski NM, Best SL, Ziemlewicz TJ, Lubner MG, Hinshaw JL, Lee FT Jr., Abel EJ. Percutaneous microwave ablation of anterior RCC is safe and effective. Mid-Atlantic Section of the American Urological Association. Washington DC. October 4-7, 2018.
- 40. Repplinger M. Robbins JB, **Ziemlewicz TJ**, Kitchin D, Reeder SR, Pickhardt PJ. Diagnostic Accuracy of Community versus Academic Radiologists' MR Interpretations for the Detection of Acute Appendicitis. American Society of Emergency Radiology Annual Meeting, Washington, DC, September 2018.
- 41. Shapiro DD, Wells SA, Ziemlewicz TJ, Lubner MG, Hinshaw JL, Lee Jr. FT, Jarrard DF, Richards KA, Best SL, Downs TM, Allen GO, Nakada SY, Abel EJ. Comparative analysis of perioperative outcomes for patients with 4-7cm RCC treated with either microwave ablation, partial nephrectomy or radical nephrectomy. American Urological Association, San Francisco, California, May 18-21, 2018.
- 42. Wells SA, Able EJ, **Ziemlewicz TJ**, Lubner MG, Hinshaw JL, Lee, FT Jr. Percutaneous Microwave Ablation for Local Control of T1b Renal Cell Carcinoma. American Urological Association, San Francisco, California, May 18-21, 2018.
- 43. Anthony Bui A, Shapiro DD, Best SL, Wells SA, Mankowski Gettle L, **Ziemlewicz TJ**, Lubner MG, Hinshaw JL, Lee Jr. FT, Jarrard DF, Richards KA, Downs TM, Nakada SY, Abel EJ. Shared decision making for treatment of small renal masses; a survey of patient's opinions before and after initial counseling. American Urological Association, San Francisco, California, May 18-21, 2018.



- 44. Wells SA, **Ziemlewicz TJ**, Lubner MG, Albe EJ, Hinshaw JL, Lee FT Jr. Microwave Ablation of RCC: Evolution on Surveillance CT and MRI. American Urological Association. San Francisco, CA. May 18-21, 2018.
- 45. Posielski N, Bui A, Wells S, Best S, Mankowski Gettle L, **Ziemlewicz T**, Lubner M, Hinshaw L, Lee F, Nakada SY, Abel EJ. Complications following 1053 percutaneous core renal mass biopsies: Risk Factors and Safety Assessment. Annual Meeting of the American Urological Association. San Francisco, CA May 2018.
- 46. Smolock A, Cristescu M, Green C, Longo K, Vlaisavljevich E, Cannata J, Mankowski Gettle L, Lubner M, Hinshaw J, Xu Z, Ziemlewicz T, Lee F. Non-thermal, non-invasive hepatic ablation using robotically assisted sonic therapy (RAST): Ablation creation and imaging characteristics. Society of Interventional Radiology 2018: Los Angeles, CA, March 17-22, 2018.
- Andrew PG- undergraduate student in RUSCH program\*, Ziemlewicz T. Change in splenic volume related to IV contrast administration: implications for clinical practice. SAR 2018 Annual Scientific Meeting and Educational Course. Scottsdale, AZ. March 4, 2018.
- Swietlik JF\*, Ziemlewicz T. Safety of Percutaneous Microwave Tumor Ablation in Patients with Implanted Cardiac Devices: A Single Center Retrospective Review. SAR 2018 Annual Scientific Meeting and Educational Course. Scottsdale, AZ. March 4, 2018.
- 49. Wells SA, **Ziemlewicz TJ**, Lubner MG, Albe EJ, Hinshaw JL, Lee FT Jr. Microwave Ablation of RCC: Evolution on Surveillance CT and MRI. SAR 2018 Annual Scientific Meeting and Educational Course. Scottsdale, AZ. March 4, 2018.
- Wells SA, Able EJ, Ziemlewicz TJ, Lubner MG, Hinshaw JL, Lee, FT Jr. Percutaneous Microwave Ablation for Local Control of T1b Renal Cell Carcinoma. SAR 2018 Annual Scientific Meeting and Educational Course. Scottsdale, AZ. March 4, 2018.
- Hinshaw A, Laeseke P, Karaoglu K, Hinshaw JL, Lubner MG, Wells S, Ziemlewicz T, Ozkan O, Lee FT Jr. Utilization of interventional oncologic therapies for patients referred to a primary liver tumor board at a tertiary care and liver transplant center. RSNA 103rd Scientific Assembly and Annual Meeting, Chicago, Illinois, November 26 December 1, 2017.
- 52. Abel, EJ, Miller BL, Mankowski Gettle L, Van Roo JR, Ziemlewicz TJ, Best SL, Wells SA, Lubner MG, Hinshaw JL, Lee FT, Downs TM, Nakada SY. Should Active Surveillance Be the Treatment of Choice for Renal Oncocytic Neoplasms? Urological Surgery II, American College of Surgeons Clinical Congress 2017: San Diego, October 22-26, 2017.



- 53. Yang W, Varghese T, Ziemlewicz T, Alexander M, Wergin K, Lubner M, Hinshaw JL, Wells S, Lee FT Jr. Delineation of microwave ablated hepatocellular carcinomas using electrode displacement elastography. IEEE International Ultrasonics Symposium. Washington, DC. September 6-9, 2017.
- 54. Yang, W, Ziemlewicz TJ, Lubner MG, Hinshaw JL, Wells SA, Lee FT Jr., Varghese T. Improved delineation rate of thermally ablated liver tumors with electrode displacement elastography compared to commercial acoustic radiation force impulse imaging. IEEE International Ultrasonics Symposium. Washington, DC. September 6-9, 2017.
- 55. Pohlman RM, Jiang J, Yang W, **Ziemlewicz TJ**, Alexander ML, Wergin KL, Lubner MG, Hinshaw JL, Lee Jr. FT, Verghese. Comparison Study of Displacement Estimation Methods for Microwave Ablation Procedures Using Electrode Displacement Elastography. International Ultrasonics Symposium, Washington, DC, September 6-9, 2017.
- 56. Yang W, Varghese, Ziemlewicz TJ, Alexander M, Lubner MG, Hinshaw JL, Wells SA, Lee FT Jr. Delineation of post-procedure ablation regions with electrode displacement elastography with a comparison to acoustic radiation force impulse imaging. American Association of Physicists in Medicine Annual Meeting. Denver, CO. July 30-August 3, 2017.
- 57. Mukerjee S\*, **Ziemlewicz TJ**, Lubner MG, Hinshaw JL, Lee FT Jr., Wells SA. Microwave ablation of RCC: Evolution on surveillance CT and MRI. World Conference on Interventional Oncology. Boston, MA. June 8-11, 2017.
- 58. Hartung M\*, Lubner MG, Ziemlewicz TJ, Hinshaw JL, Lee FT Jr., Wells SA. Percutaneous microwave ablation of localized T1b RCC: Local tumor control, safety and procedural considerations. World Conference on Interventional Oncology. Boston, MA. June 8-11, 2017.
- 59. Smolock AR, Cristescu MM, Vlaisavljevich E, Gendron-Fitzpatrick A, **Ziemlewicz TJ**, Lee FT Jr. Robotically assisted sonic therapy (RAST) for non-invasive liver ablation in a porcine animal model. World Conference on Interventional Oncology. Boston, MA. June 8-11, 2017.
- 60. Smolock, AR, Cristescu MM, Hinshaw A, Woo KM, Wells SA, Ziemlewicz TJ, Lubner MG, Dalvie PS, Hinshaw JL, Brace CL, Ozkan OS, Lee FT Jr, Laeseke PF. Combining microwave ablation and transarterial chemoembolization improves local tumor control of 3- to 5-cm hepatocellular carcinoma. World Conference on Interventional Oncology. Boston, MA. June 8-11, 2017.
- 61. Cristescu MM, Smolock AR, Wells SA, Lubner MG, **Ziemlewicz TJ**, Hinshaw JL, Lee FT Jr. Post-transplantation outcomes following percutaneous microwave ablation as bridge-to-transplant monotherapy for HCC. World Conference on Interventional Oncology. Boston, MA. June 8-11, 2017.



- 62. Longo K, Smolock AR, Lubner MG, Hinshaw JL, Wells SA, Laeseke PF, Ziemlewicz TJ, Lee FT Jr. Microwave ablation of hepatocellular carcinoma: Outcomes in BCLC0 and A patients with single versus multiple synchronous tumors. World Conference on Interventional Oncology. Boston, MA. June 8-11, 2017.
- Cristescu MM, Smolock AR, Wells SA, Lubner MG, Ziemlewicz TJ, Hinshaw JL, Lee FT Jr. Percutaneous microwave lung tumor ablation: A single center mid-term experience. World Conference on Interventional Oncology. Boston, MA. June 8-11, 2017.
- Comstock J, Ziemlewicz TJ, Lubner MG, Wells SA, Lee FT Jr, Hinshaw JL. Clinical outcomes of percutaneous microwave ablation for hepatic colorectal metastasis with a modern generation system. World Conference on Interventional Oncology. Boston, MA. June 8-11, 2017.
- 65. Lim AH, Rozo M, Ziemlewicz TJ, Best SL, Wells SA, Lubner MG, Hinshaw JL, Lee FT Jr, Nakada SY, Abel EJ. Impact of pretreatment renal mass biopsy for patients considering surgery. American Urological Association. Boston, MA. May 12-16, 2017.
- 66. Lim AH, Heckman JE, **Ziemlewicz TJ**, Best SL, Wells SA, Lubner MG, Hinshaw JL, Lee FT Jr., Nakada SY, Abel EJ. Role of biopsy in management of large, locally advanced and metastatic renal masses. American Urologic Association Annual Meeting. Boston, MA. May 12-16, 2017.
- 67. Best SL, Johnson B, Wells SA, Lubner MG, Ziemlewicz TJ, Hinshaw JL, Lee FT Jr., Nakada SY, Abel EJ. Long-term outcomes of cryoablation for biopsy-proven RCC: Size matters. American Urologic Association Annual Meeting. Boston, MA. May 12-16, 2017.
- Johnson B, Wells SA, Best SL, Hartung M, Ziemlewicz, Lubner MG, Hinshaw JL, Lee FT Jr., Nakada SY, Abel EJ. Percutaneous microwave ablation for clinical T1b renal cancers. American Urologic Association Annual Meeting. Boston, MA. May 12-16, 2017.
- 69. Johnson B, Lim AH, Wells SA, Best SL, Hartung M, Lubner MG, **Ziemlewicz TJ**, Hinshaw JL, Lee FT Jr., Huang W, Yang R, Nakada SY, Abel EJ. Does routine biopsy improve detection of residual RCC post microwave ablation? American Urologic Association Annual Meeting. Boston, MA. May 12-16, 2017.
- 70. Lim AH, Heckman JE, **Ziemlewicz TJ**, Best SL, Wells SA, Lubner MG, Hinshaw JL, Lee FT Jr., Nakada SY, Abel EJ. Role of biopsy in management of large, locally advanced and metastatic renal masses. American Urologic Association Annual Meeting. Boston, MA. May 12, 2017.



- 71. Lee SJ\*, Graffy PM, Ziemlewicz TJ, Pickhardt PJ. Prevalence of vertebral fractures at routine body CT according to L1 trabecular attenuation. Presented at the 2017 ARRS Annual Meeting. New Orleans, LA. April 30, 2017.
- 72. Repplinger MD\*, Pickhardt PJ, Bracken RL, Kitchin DR, Robbins JB, **Ziemlewicz TJ**, Reeder SB. MR versus CT imaging for identifying the origin of abdominal pain in emergency department patients. Presented at the 25<sup>th</sup> Annual Emergency Medicine Research Forum (MCW), April 2017
- 73. Ziemlewicz TJ\*, Graffy PM, Lee SJ, Pickhardt PJ. Prevalence of vertebral compression fractures on routine thoracoabdominal imaging according to L1 trabecular attenuation: a step in the validation of opportunistic osteoporosis screening. Presented at the SAR 2017 Annual Scientific Meeting and Educational Course. New Orleans, LA. April 30, 2017.
- 74. Hinshaw A, Abel E J, Lubner, M, Wells, S, Ziemlewicz TJ, Lee FT Jr., Best S, Hinshaw JL. Comparing outcomes for percutaneous microwave ablation, cryoablation and surgery for treatment of sporadic RCC? 4cm. Society of Abdominal Radiology 2017 Annual Scientific Meeting and Educational Course. Hollywood, Florida. March 26 31, 2017.
- 75. Jeanette Comstock; **Timothy J. Ziemlewicz**; Meghan G. Lubner; Shane A. Wells; Fred T. Lee, Jr; J. Louis Hinshaw. Clinical outcomes of percutaneous microwave ablation for hepatic metastasis with a modern generation system. Society of Abdominal Radiology 2017 Annual Scientific Meeting and Educational Course. Hollywood, Florida. March 26 - 31, 2017.
- 76. Timothy J. Ziemlewicz. Prevalence of Vertebral Compression Fractures on Routine Thoracoabdominal Imaging According to L1 Trabecular Attenuation: A Step in the Validation of Opportunistic Osteoporosis Screening. Society of Abdominal Radiology 2017. Hollywood, FL. March 26, 2017.
- 77. R. Van Roo, B. L. Miller, T. J. Ziemlewicz, S. L. Best, S. A. Wells, M. G. Lubner, J. Hinshaw, F. Shi, F. T. Lee, Jr., S. Y. Nakada, E. Abel. Renal oncocytic neoplasms; observe, excise or ablate. Annual Academic Surgical Congress. Las Vegas, NV. February 7-9, 2017.
- 78. M. C. Rozo, T. J. Ziemlewicz, S. L. Best, S. A. Wells, M. G. Lubner, J. Hinshaw, F. Shi, F. T. Lee, S. Y. Nakada, E. Abel. Pre-surgical renal mass biopsy reduces upfront treatment costs for small renal masses (SRMs). Renal Oncocytic Neoplasms; Observe, Excise or Ablate. Annual Academic Surgical Congress. Las Vegas, NV. February 7-9, 2017.
- 79. Wells SA, Hinshaw JL, Ziemlewicz TJ, Best SL, Lubner MG, Lee FT Jr, Abel EJ. Disposition after percutaneous thermal ablation of localized RCC: Risk Factors associated with need for hospitalization. Presented at the 2016 RSNA Scientific assembly. November 27 – December 2, 2016



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- 80. Wells SA, Ziemlewicz TJ, Mithqal A, Wheeler KM, Schenkman NS, Hinshaw JL, Best SL, Abel EJ, Lee FT Jr., Lubner MG. Split-bolus CT-urography after microwave ablation of renal cell carcinoma: feasibility, image quality and dose reduction. RSNA 102<sup>nd</sup> Scientific Assembly and Annual Meeting. Chicago, IL. November 27-December 2, 2016.
- Ziemlewicz TJ, Kim DH, Hinshaw JL, Lubner MG, Robbins JB, Pickhardt PJ. Computer-aided Detection of Colorectal Polyps at CTC: Prospective Evaluation of Clinical Performance and Third-party Reimbursement. Radiologic Society of North America Chicago, IL. Nov 27-Dec 2, 2016.
- 82. Best SL, Khanna S, Wittmann T, Klapperich M, Wells SA, Ziemlewicz TJ, Lubner MG, Hinshaw JL, Lee FT Jr, Nakada SY, Abel EJ. Pre-operative and operative variables predict which patients can be discharged without admission after percutaneous ablation of RCC. World Congress of Endourology, November 8 12, 2016.
- 83. Wells SA, Abel EJ, **Ziemlewicz TJ**, Lubner MG, Best SL, Hinshaw JL, Lee FT Jr. Effect of tumor complexity on oncologic efficacy and complications in the percutaneous ablation of 100 T1a renal cell carcinoma. Interventional Oncology Sans Frontieres (IOSF) Congress. Milan, Italy. July 7-9, 2016.
- Wells SA, Ziemlewicz TJ, Lubner MG, Best SL, Hinshaw JL, Lee FT Jr. Abel EJ. Local oncologic efficacy and safety of percutaneous thermal ablation of metastatic renal cell carcinoma. Interventional Oncology Sans Frontieres (IOSF) Congress. Milan, Italy. July 7-9, 2016.
- 85. Wells SA, Ziemlewicz TJ, Lubner MG, Best SL, Hinshaw JL, Lee FT Jr. Abel EJ. Cryoablation or microwave ablation for localized T1a renal cell carcinoma: Local oncologic efficacy and distant tumor progression. Interventional Oncology Sans Frontieres (IOSF) Congress. Milan, Italy. July 7-9, 2016.
- 86. \*Laeseke P (junior faculty), Ziemlewicz TJ, Lubner MG, Hinshaw JL, Wells SA, Lee FT Jr. Clinical Outcomes of Percutaneous Microwave Ablation for Hepatocellular Carcinoma with Minimum 1-year Follow-up. World Congress on Interventional Oncology Boston, MA. June 9-12, 2016.
- 87. \*Nocerino E (visiting radiology resident), Ziemlewicz TJ, Lee FT Jr, Brace CL. A Comparison of Tumor and Ablation Dimensions after Radiofrequency (RF) and Microwave (MW) Ablation of Small Hepatocellular Carcinoma (HCC) at a Single Center. World Congress on Interventional Oncology Boston, MA. June 9-12, 2016.
- 88. **Ziemlewicz TJ**, Hinshaw JL, Lubner M, Wells S, Alexander M, Lee FT Jr. Benign Abdominal Tumors: Percutaneous Ablation Should be the First Line. World Congress on Interventional Oncology Boston, MA. June 9-12, 2016.
- 89. Smolock A, Cristescu M, Carberry G, Wells S, Ziemlewicz TJ, Lubner M, Hinshaw



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JL, Brace C, Lee FT Jr. Is Hepatic Microwave Ablation near Critical Structures Dangerous? A Case-Based Review. World Congress on Interventional Oncology Boston, MA. June 9-12, 2016.

- **90.** Lee FT Jr., Abel E J, Best S L, Nakada S, Hinshaw JL, Lubner M, **Ziemlewicz TJ**, Wells S, Wittmann, T. Comparing outcomes for percutaneous microwave ablation, cryoablation and surgery for treatment of sporadic RCC 4cm. World Congress on Interventional Oncology. Boston, MA, June 9-12, 2016.
- 91. Wong VK, Wells SA, Hinshaw JL, Best SL, Ziemlewicz TJ, Lubner MG, Lee FT Jr. Abel EJ. Thermal ablation of small renal masses: Should biopsy take place prior to or during the ablation procedure? World Congress on Interventional Oncology. Boston, MA. June 9-12, 2016.
- 92. Averill S, Wells SA, Hinshaw JL, Best SL, Ziemlewicz TJ, Lubner MG, Lee FT Jr. Abel EJ. Thermal ablation of metastatic renal cell carcinoma: Safety and local oncologic efficacy. World Congress on Interventional Oncology. Boston, MA. June 9-12, 2016.
- 93. Grimes MD, Wittmann TA, Best SL, Hinshaw JL, Lee Jr. FT, Lubner MG, Ziemlewicz TJ, Wells SA, Nakada SY, Abel EJ. Comparing outcomes for percutaneous microwave ablation, cryoablation and surgery for treatment of sporadic RCC ≤ 4cm. Abstract PD46-04; Kidney Cancer: Localized: Ablative Therapy & Active Surveillance Podium Session. American Urological Association Annual Meeting. CA. May 10, 2016.
- 94. \*Dinan J (undergraduate student), Pickhardt PJ, Lubner MG, **Ziemlewicz TJ**. Normative Hepatosplenic Volumes from Computed Tomography in Healthy Patients. American Roentgen Ray Society. Los Angeles, CA. April 21, 2016
- 95. Carberry G, Smolock A, Cristescu M, Lee FT Jr., Ziemlewicz TJ, Wells S, Lubner, M, Hinshaw JL, Brace C. Percutaneous microwave ablation of liver tumors near the heart: safety and efficacy. SIR 2016 41st Annual Scientific Meeting. Vancouver, BC. April 4, 2016.
- 96. Klapperich M, Abel E J, Best S, Hinshaw JL, Lee FT Jr., Lubner M, Ziemlewicz TJ, Wells S. Percutaneous microwave ablation of 100 T1a renal cell carcinoma: Short and intermediate term efficacy with emphasis on tumor complexity and mitigation of complications. SIR 2016 41st Annual Scientific Meeting. Vancouver, BC. April 4, 2016.
- 97. Yang W, Rubert N, Ingle A, Lubner MG, Ziemlewicz TJ, Hinshaw JL, Wells SA, Lee FT Jr., Zagzebski JA, Varghese T. Monitoring Microwave Ablation Treatments for Hepatocellular Carcinoma using Electrode Displacement Ultrasound Elastography. American Institute of Ultrasound in Medicine Annual Convention. New York, NY. March 17, 2016.



- Pickhardt PJ, Malecki K, Hunt OF, Beaumont C, Kloke J, Ziemlewicz TJ, Lubner MG. Hepatosplenic CT Volumetric Assessment for Staging Liver Fibrosis. Society of Abdominal Radiology 2016 Annual Scientific Meeting and Educational Course. Waikoloa, Hawaii. March 13 - 18, 2016.
- 99. Carberry G, Smolock A, Cristescu M, Wells S, Ziemlewicz TJ, Lubner M, Hinshaw JL, Brace C, Lee FT Jr. Percutaneous microwave ablation of liver tumors near the heart: safety and efficacy. Society of Abdominal Radiology 2016 Annual Scientific Meeting and Educational Course. Waikoloa, Hawaii. March 13 18, 2016.
- 100. Ziemlewicz TJ, Hinshaw JL, Lubner M, Wells S, Brace C, Agarwal P, Lee FT Jr. Clinical Outcomes of Percutaneous Microwave Ablation for Hepatocellular Carcinoma with Minimum 1-year Follow-up. Society of Abdominal Radiology 2016 Annual Scientific Meeting and Educational Course. Waikoloa, Hawaii. March 13 - 18, 2016.
- 101. \*Blute ML Jr. (Urology fellow), Ziemlewicz TJ, Kyriakopoulos C, Lang J, Mann M, Jarrard DF, Shi F, Richards K, Downs TM, Abel EJ. Novel 3D volume analysis reveals primary tumor diameter is a poor predictor of tumor volume; does tumor burden actually predict survival after cytoreductive nephrectomy? Oral abstract presentation: Locally-Advanced RCC. 14th International Kidney Cancer Symposium; Miami, FL. November 6, 2015
- 102. Best SL, Wells SA, **Ziemlewicz TJ**, Hinshaw JL, Lee FT Jr., Lubner MG, Brace CL, Nakada SY, Abel EJ. Microwave ablation of T1a renal cancer: Preliminary safety and clinical efficacy. 33rd World Congress of Endourology. London, England. October 1, 2015.
- 103. Repplinger MD, Pickhardt PJ, Kitchin DR, Robbins JB, Ziemlewicz TJ, Reeder SB. Prospective comparison of a contrast-enhanced MRI protocol with contrastenhanced MDCT for the primary diagnosis of acute appendicitis in the general population. International Society for Magnetic Resonance in Medicine. Toronto, Ontario. May 30, 2015.
- 104. Heckman JE, Ziemlewicz T, Best S, Lubner M, Hinshaw L, Jarrard DF, Downs T, Huang W, Lee FT Jr., Nakada SY, Abel EJ. Multi-Quadrant Biopsy Technique Decreases Sampling Error in Large Heterogeneous Renal Tumors. Kidney Cancer: Evaluation and Staging I Moderated Poster Session (MP35-17). American Urological Association annual meeting, New Orleans, LA, May 15-19, 2015.
- 105. Blute M, Prince J, Bultman E, Hinshaw L, Drewry A, Best S, Lee FT Jr., Ziemlewicz T, Lubner M, Shi F, Nakada SY, Abel EJ. Predictors of Non-Diagnostic Renal Mass Biopsy. Kidney Cancer: Evaluation and Staging II Moderated Posted Session (MP44-16). American Urological Association annual meeting, New Orleans, LA, May 15-19, 2015.



- 106. Moreland AJ, Horn C, Klapperich M, Ziemlewicz TJ, Abel EJ, Nakada SY, Best SL, Hedican S, Wells SA, Hinshaw JL, Lubner MG, Brace CL, Fischman A, Lee FT Jr. Percutaneous Microwave Ablation of T1a Renal Cell Carcinoma: Interval Update with Median 11-Month Imaging Follow-up. World Congress on Interventional Oncology New York, NY May 2015.
- 107. \*Moreland AJ (medical student), Wells SA, Hinshaw JL, Lee FT Jr., Lubner MG, Brace CL, Kitchin DR, Munoz del Rio A, Ledwidge ME, **Ziemlewicz TJ**. Greyscale, Color Doppler, and B-Flow Ultrasound Guidance for Tissue Hydrodissection: Modality Impact on Injection Localization. World Congress on Interventional Oncology New York, NY May 6, 2015.
- 108. **Ziemlewicz TJ**, Hinshaw JL, Lubner MG, Wells SA, Brace CL, Alexander ML, Agarwal PA, Lee FT Jr. Percutaneous Microwave Ablation for Hepatocellular Carcinoma: Safety and Efficacy for a 4-year Experience Treating 150 Tumors. World Congress on Interventional Oncology New York, NY May 8, 2015.
- Ziemlewicz TJ, Pickhardt PJ. Adding value at CT colonography: opportunistic osteoporosis screening. Society of Abdominal Radiology San Diego, CA March 2015.
- 110. Pickhardt PJ, Repplinger MD, **Ziemlewicz TJ (presenter)**, Robbins JB, Kitchin DR, Reeder SB. Prospective trial evaluating contrast-enhanced MR imaging for suspected appendicitis: comparison against MDCT and surgical pathology reference standard. Society of Abdominal Radiology San Diego, CA March 2015.
- 111. Johnson B, Hinshaw JL, Robbins, JR, **Ziemlewicz T**, Kim DH, Pickhardt PJ. Objective intra-patient comparison of bowel preparation quality at CT colonography using omnipaque versus gastrografin. Scientific exhibit at the Society of Abdominal Radiology annual meeting, San Diego, CA. March 22-27,2015.
- 112. Lubner MG, **Ziemlewicz TJ**, Wells S, Li K, Wu P, Munoz del Rio A, Hinshaw JL, Lee Jr FT, Brace CL. Dual Energy for Ablation Zone Assessment. Presented at the SAR 2015 Annual Scientific Meeting and Educational Course, Wylie J. Dodds Research Award Update. Coronado, CA. March 22-27, 2015.
- 113. Dekarske A\*, Lubner MG, Kitchin D, Kim DH, Hinshaw JL, Lee FT, Pickhardt PJ, Robbins JB, Wells S, **Ziemlewicz T**. Determine the significance of non-diagnostic CT-fluoroscopy guided lung biopsy to guide management and inform the need for repeat biopsy. Presented at the 2015 Annual Meeting for the Society of Interventional Radiology (SIR)
- 114. Cristescu M, Smolock AR, Woods MA, Fernandez LA, Mezrich J, Agarwal PD, Lubner MG, **Ziemlewicz TJ**, Hinshaw JL, Brace CL, Ozkan AS, Lee FT. Preliminary experience with percutaneous microwave ablation as bridge-to-transplant monotherapy for HCC. SIR Atlanta, GA Feb-March 2015.



- CURRICULUM VITAE
- 115. E. Jason Abel\*, Meghan Lubner, Alejandro Munoz Del Rio, Nicholas Stabo, Perry Pickhardt, **Tim Ziemlewicz**. Pre-Treatment CT Textural Analysis of large primary renal cell carcinomas: Tumor heterogeneity correlates with histology and clinical outcomes. American Urological Association Annual Meeting. New Orleans, LA. March 13, 2015.
- 116. Repplinger MD, Pickhardt PJ, Kitchin DR, Robbins JB, **Ziemlewicz TJ**, Reeder SB. Prospective comparison of a contrast-enhanced MRI protocol with contrastenhanced MDCT for the primary diagnosis of acute appendicitis in the general population. Presented at the ISMRM 2015 Annual Meeting
- 117. Moreland A, Lubner MG, **Ziemlewicz TJ**, Hinshaw JL, Kitchin DR, Johnson AD, Lee FT Jr, Brace CL. Evaluation of an Experimental Thermoprotective Gel for Hydrodissection During Percutaneous Microwave Ablation: In-Vivo Results. Radiological Society of North America Chicago, IL November 2014.
- 118. Hinshaw JL, Loomis SB, Lubner MG, **Ziemlewicz TJ**, Pickhardt PJ, Lee FT Jr, Kitchin DR, Kim DH. Does an Intra-Parenchymal Blood Patch Decrease the Rate of Pneumothorax-Related Complications in Patients Undergoing Image-Guided Lung Biopsy? Radiological Society of North America Chicago, IL November 2014.
- 119. **Ziemlewicz TJ**, Brett AD, Brown K, Pickhardt PJ. Opportunistic Osteoporosis Screening: Addition of QCT BMD Measurement to CT Colonography Fits a Clinical Need. Radiological Society of North America Chicago, IL November 2014.
- Repplinger MD, Pickhardt PJ, Kitchin DR, Robbins JB, Ziemlewicz TJ, Reeder SB. Direct Comparison of Contrast-Enhanced MRI with Contrast-Enhanced CT to Diagnose Appendicitis. Radiological Society of North America Chicago, IL November 2014.
- 121. \*PotretzkeTA (resident), **Ziemlewicz TJ**, Hinshaw JL, Lubner MG, Kitchin DR, Brace CL, Lee FT. Microwave versus radiofrequency ablation for the treatment of HCC: a comparison of efficacy and safety at a single center. Radiological Society of North America Chicago, IL November 2014.
- 122. Hinshaw JL, Loomis SB, Lubner MG, **Ziemlewicz TJ**, Kim DH, Pickhardt PJ, Kitchin DR, Lee FT Jr. Patients with Emphysema: What is the Actual Risk of Pneumothorax-related Complications for these Patients during Percutaneous Lung Biopsies? Radiological Society of North America Chicago, IL November 2014.
- 123. Yang W, Alexander M, Rupert N, Ingle A, Lubner M, Ziemlewicz TJ, Hinshaw JL, Lee FT Jr, Zagzebski JA, Varghese T. Monitoring Microwave Ablation for Liver Tumors with Electrode Displacement Strain Imaging. IEEE International Ultrasonics Symposium (IUS) Chicago, IL September 3-6, 2014.
- 124. Hinshaw JL, **Ziemlewicz TJ**, Lubner MG, Brace CL, Alexander ML, Lee FT. Percutaneous microwave ablation of hepatic metastases with high-powered, gascooled antennas: an update on a 3-year experience. World Congress on



Interventional Oncology. New York, NY, May 2014.

- 125. **Ziemlewicz TJ**, Hinshaw JL, Lubner MG, Brace CL, Alexander ML, Sampson L, Lee FT Jr. Percutaneous Microwave Ablation of Hepatocellular Carcinoma: Clinical Results with 118 Tumors over 3 years. World Congress on Interventional Oncology New York, NY. May 2014.
- 126. Lubner MG, **Ziemlewicz TJ**, Hinshaw JL, Lee FT, Sampson L, Brace CL. Dual Energy CT Improves Delineation of Hepatic Microwave Ablation Zones in a Swine Model. World Congress on Interventional Oncology New York, NY May 2014.
- 127. \*Smolock AR (radiology resident), **Ziemlewicz TJ**, Kitchin DR, Lubner MG, Hinshaw JL, Brace CL, Lee FT. Hepatic Microwave Ablation Adjacent to the Diaphragm: Safety and Efficacy. World Congress on Interventional Oncology New York, NY May 2014.
- 128. \*Cristescu M (radiology resident), **Ziemlewicz TJ**, Kitchin D, Abel EJ, Hedican SP, Lubner MG, Hinshaw JL, Brace CL, Lee FT. Percutaneous Microwave Ablation for the Treatment of Renal Angiomyolipoma: Initial Experience. World Congress on Interventional Oncology New York, NY May 2014.
- 129. **Ziemlewicz TJ**, Brace CL, Willey BJ, Lubner MG, Hinshaw JL, Sampson LA, Warner TF, Lee FT. Ultrasound Predicts Pathologic Zone of Necrosis Better than Non-contrast CT During RF and Microwave Ablation. World Congress on Interventional Oncology New York, NY May 2014.
- 130. \*Potretzke TA (radiology resident), **Ziemlewicz TJ**, Hinshaw JL, Lubner MG, Kitchin DK, Brace CL, Center ML, Lee FT. Microwave Ablation of Hepatic Adenomas: Initial Experience with 10 Adenomas. World Congress on Interventional Oncology New York, NY May 2014.
- 131. Allen H, Abel EJ, Shapiro DD, Shi F, Potretzke A, Jarrard DF, **Ziemlewicz TJ**, Downs TM. Core Muscle Size Predicts 6-month Mortality in Patients Undergoing Radical Cystectomy. AUA, Orlando, FL. May 2014.
- 132. \*Streeper, NM (urology fellow), Ziemlewicz TJ, Best SL. Is the Amount of Radiation Exposure During Follow-up Imaging Safe in Patients Undergoing Ablation of T1 Renal Masses? Engineering and Urology Society Meeting, Orlando, FL. May 17, 2014.
- 133. \*Maciejewski A (undergraduate student), Ziemlewicz T, Binkley N, Brett A, Brown K, Pickhardt P. Effect of IV Contrast Material on Quantitative CT Bone Mineral Density Measurement at the Proximal Femur: Direct Comparison of Unenhanced and Contrast-Enhanced Series and Implications for Opportunistic Osteoporosis Screening. AMERICAN ROENTGEN RAY SOCIETY, San Diego, CA. May 2014.



- 134. \*Maciejewski A (undergraduate student), Ziemlewicz T, Binkley N, Brett A, Brown K, Pickhardt P. Quantitative CT Bone Mineral Density Measurement at the Proximal Femur Using Routine Contrast-Enhanced Abdominopelvic CT: Comparison with Dual-Energy X-Ray Absorptiometry and Implications for Opportunistic Osteoporosis Screening. AMERICAN ROENTGEN RAY SOCIETY, San Diego, CA. May 2014.
- 135. **Ziemlewicz TJ**, Maciejewski A, Binkley N, Brett A, Brown K, Pickhardt P. Opportunistic Osteoporosis Screening: QCT BMD Measurement at the Proximal Femur using Routine Abdominopelvic CT Compared with DXA. Society of Abdominal Radiology, Boca Raton, FL. March 2014.
- Moreland A, Ziemlewicz TJ, Fischman AM, Hinshaw JL, Abel EJ, Lubner MG et al. Percutaneous Microwave Ablation of Renal Tumors: Multicenter Evaluation of Safety and Efficacy. RADIOLOGICAL SOCIETY OF NORTH AMERICA, December 1-6, 2013.
- 137. **Ziemlewicz TJ**, Hinshaw JL, Lubner MG, Brace CL, Alexander ML, Sampson L, Lee FT Jr. Percutaneous Microwave Ablation of Hepatocellular Carcinoma: Early Clinical Results with 107 Tumors. Radiological Society of North America, Chicago, IL. December 2013.
- 138. Heckman J, Drewry A, Best S, **Ziemlewicz T**, Lubner MG, Downs TM, Jarrard DF, Nakada SY, Huang W, Abel EJ. Quadrant biopsy technique improves diagnostic ability for large renal masses. International Kidney Cancer Symposium, Oct 2013.
- 139. Hinshaw JL, **Ziemlewicz TJ**, Lubner MG, Brace CL, Alexander ML, Sampson L, Lee FT Jr. Percutaneous Microwave Ablation of Hepatic Metastases with a High-Powered, Gas-cooled Antennae: 24 Months Experience in 29 Patients. World Congress on Interventional Oncology New York, NY May 2013.
- 140. Ziemlewicz TJ, Hinshaw JL, Lubner MG, Brace CL, Alexander ML, Sampson L, Lee FT Jr. Percutaneous Microwave Ablation of Hepatocellular Carcinoma with High-Powered, Gas-Cooled Antennas: 24-Month Experience in 63 Patients. World Congress on Interventional Oncology New York, NY May 2013.
- 141. Lubner MG, **Ziemlewicz TJ (presenter)**, Hinshaw JL, Lee FT Jr, Sampson L, Brace CL. A Short Microwave Ablation Zone is Possible: In Vivo Experience with Single and Multiple Modified Triaxial Antennas. World Congress on Interventional Oncology New York, NY May 2013.
- 142. Robbins JB, **Ziemlewicz TJ**, Grayev AM, Romandine A, Kim DH. End-of-Rotation Evaluations: Infrastructure to Assess Achievement of the Educational Milestones. Association of University Radiologists Los Angeles, CA April 2013.
- 143. \*Moreland AJ (medical student), **Ziemlewicz TJ**, Fischman AM, Hinshaw JL, Abel EJ, Lubner MG, Best SL, Center ML, Brace CL, Lee FT Jr. Percutaneous



CURRICULUM VITAE

Microwave Ablation of Renal Tumors: Multicenter Evaluation of Safety and Efficacy. World Congress on Interventional Oncology New York, NY May 2013.

- Dalvie P, Ziemlewicz T, Sonntag P, Gutta N, Cohn A, Ozkan OS, Lee FT Jr. 144. Combination TACE and Microwave Ablation Therapy in Intermediate Sized HCC: Preliminary Results. World Congress on Interventional Oncology New York, NY May 2013.
- 145. Lubner MG, Ziemlewicz TJ, Cohn AR, Center ML, Wells S, Brace CL, Hinshaw JL, Lee FT Jr. Microwave Ablation of Symptomatic Hepatic Cavernous Hemangiomas. World Congress on Interventional Oncology New York, NY May 2013.
- 146. \*Boyum J (radiology resident), Robbins JB, Sadowski E, Sabo L, Ziemlewicz TJ (Presenter). Curriculum Intervention: Utilizing Resident Assessment to Focus Education Resources. Association of University Radiologists Los Angeles, CA April 2013.
- Ziemlewicz TJ, Grayev AM, Robbins JB, Romandine A, Kim DH. Evaluation of 147. an End-of-Rotation Resident Assessment Tool: Strong Correlation with ACR In-Service Results. Association of University Radiologists Los Angeles, CA April 2013.
- Brace CL, Wu P, Hinshaw JL, Lubner MG, Ziemlewicz TJ, Lee FT Jr. Serial CT 148. for Thermal Ablation Monitoring: Radiologic-pathologic Correlation after Dosereducing Reconstruction. Society of Abdominal Radiology, Maui, HI Feb 2013.
- Lubner MG, Ziemlewicz TJ, Hinshaw JL, Lee FT Jr, Brace CL. Dual energy CT 149. Improves Delineation of Hepatic Microwave Ablation Zones in a Swine Model. Society of Abdominal Radiology, Maui, HI Feb 2013.
- 150. Knavel E, Brace CL, Lubner MG, **Ziemlewicz TJ**, Hinshaw JL, Lee FT Jr. CT Appearance of Thermal Ablation Zones in Hepatic Malignancy: Radiofrequency vs Microwave. Society of Abdominal Radiology, Maui, HI Feb 2013.
- Ziemlewicz TJ, Hinshaw JL, Lubner MG, Brace CL, Sampson LA, Center M, Lee 151. FT Jr. Percutaneous Hepatic Microwave Ablation with High-Powered, Gas-cooled antennas: Short term Results in 87 patients. CIO Miami, FL Jan 2013.
- Best SL, Abel JE, Ziemlewicz TJ, Fischman AM, Hinshaw JL, Lee FT Jr, Brace 152. CL, Lubner MG, Center ML, Moreland AJ, Nakada SY. Initial experience with percutaneous microwave ablation of renal tumors: Multicenter evaluation of safety and efficacy. World Congress of Endourology, Istanbul, Turkey; Sep 4-8, 2012.
- **Ziemlewicz TJ**, Hinshaw JL, Lubner MG, Brace CL, Sampson LA, Center MA, 153. Wells, S, Lee, FT Jr. Percutaneous Ablation with a High-Powered, Gas-Cooled Microwave System: Initial Clinical Experience. World Congress on Interventional Oncology Chicago, IL June 2012.



- CURRICULUM VITAE
- 154. Best SL, **Ziemlewicz TJ**, Fischman AM, Abel JE, Hinshaw JL, Lee FT Jr, Brace CL, Lubner MG, Nakada SY, Center ML, Moreland AJ. Initial experience with percutaneous microwave ablation of renal tumors: Multicenter evaluation of safety and efficacy. Engineering and Urology, Atlanta, GA; May 19, 2012.
- 155. Wells S, Pickhardt P, Patel, S, Ruma J, King S, Lubner M, **Ziemlewicz T,** Nakada S. Manual Linear Size vs Automated Volumetric Assessment of Urolithiasis at Unenhanced CT Surveillance. American Roentgen Ray Society. Vancouver, Canada May 2012.
- 156. Grayev A, Ziemlewicz T, Kim D, Romandine A, Robbins J. Residents' Perception of a Novel End-of-Rotation Evaluation Method. Association of University Radiologists San Antonio, TX March 2012.
- 157. Lubner M, **Ziemlewicz T**, Hinshaw J, Sampson L, Lee F, Brace C. A Short Microwave Ablation Zone Is Possible: In Vivo Experience with a Modified Triaxial Antenna. Radiological Society of North America Chicago, IL November 2011.
- 158. **Ziemlewicz T**, Lubner M, Hinshaw J, Brace C, Sampson L, Lee F. Radiologic-Pathologic Correlation of RF and Microwave Ablations: Post-Ablation Ultrasound Predicts Ablation Zone Dimensions as well as Biphasic CT in Normal Swine Liver. Radiological Society of North America Chicago, IL November 2011.
- 159. **Ziemlewicz T**, Hinshaw J, Lubner M, Brace C, Sampson L, Lee F. Percutaneous Ablation with a High-Powered, Gas-Cooled Microwave System: Initial Clinical Experience. World Congress on Interventional Oncology New York, New York June 2011.
- 160. Marin D, Bashir M, Ringe K, Ziemlewicz T, Boll D, Merkle E. Characterization of Adrenal Lesions: Comparison of a 2-Point Dixon Fat Only Imaging and Standard Dual Gradient Echo In-Phase and Opposed-Phase MR Imaging at 3T. Radiological Society of North America Chicago, IL November 2010. Fellowship
- 161. Bashir M, Husarik D, Ziemlewicz T, Gupta R, Boll D, Merkle E. Liver MR Imaging in the Hepatocyte Phase with Gadolinium- EOB- DTPA (Eovist): Does Increasing the Flip Angle Improve Conspicuity and Detection of Hypointense Lesions? Radiological Society of North America Chicago, IL November 2010. Fellowship
- 162. Ziemlewicz T, Bashir M, Moshiri S, Jaffe T. Evaluation of Response Criteria in Solid Tumors (RECIST) 1.1: Do New Guidelines Change Disease Status in Patients with Renal Cell Carcinoma. AMERICAN ROENTGEN RAY SOCIETY San Diego, CA May 2010. Fellowship
- 163. **Ziemlewicz** T, Shah M. Interpretation Accuracy Following Six and Twelve Months of Training in a Diagnostic Radiology Residency. Radiological Society of North America Chicago, IL November 2007. **Residency**



## **CURRICULUM VITAE**

Ziemlewicz T, Fitzgerald D, Magalhaes A, Green C, Smith W, Phan KL. 164. Functional Magnetic Resonance Imaging of the Brain during Deception. Association of University Radiologists San Francisco, CA April 2004. 1st Place Trainee Scientific Presentation. Medical School

#### **Educational Activities & Presentations**

#### **Classroom Teaching**

Course Name:	Patient, Doctor, Society (PDS)
Lecture:	Small group leader
Years:	2015, 2016
To Whom (#):	2 <sup>nd</sup> year Medical Students (4)
Course Name:	Radiology Clerkship
Lecture:	Abdominal Imaging Seminar
Years:	2012-present (once per month)
To Whom (#):	3 <sup>rd</sup> /4 <sup>th</sup> year Medical Students (5-9)
Course Name:	Fellows Conference
Lecture:	Biliary Tract Imaging
Years:	2013-Present (once per year)
To Whom (#):	Abdominal Imaging Fellows (5)
Course Name:	Fellows Conference
Lecture:	Introduction to 3D imaging
Years:	2012-Present (once per year)
To Whom (#):	Abdominal Imaging Fellows (5)
Course Name:	Oral Boards Review
Lecture:	Genitourinary cases
Years:	2010-Present (once per year)
To Whom (#):	4 <sup>th</sup> year Radiology Residents (8)
Course Name:	Oral Boards Review
Lecture:	Gastrointestinal cases
Years:	2010-2014 (once per year)
To Whom (#):	4 <sup>th</sup> year Radiology Residents (8)
Course Name:	Radiology Resident Didactic Lecture Series
Lecture:	Abdominal Imaging Boot Camp: Trauma
Years:	2015
To Whom (#):	Radiology Residents (32)
Course Name:	Radiology Resident Didactic Lecture Series
Lecture:	Ureters, Bladder, Urethra
Years:	2010-present (every other year)



# CURRICULUM VITAE

To Whom (#): Radiology Residents (32)

Course Name:Radiology Resident Didactic Lecture SeriesLecture:Gastrointestinal case conferenceYears:2010-present (every other year)To Whom (#):Radiology Residents (32)

Course Name:Radiology Resident Didactic Lecture SeriesLecture:Abdominal CasesYears:2011-present (every other year)To Whom (#):Radiology Residents (32)

### **CME** Presentations

F= Faculty U= Undergraduates M= Medical Students R/F= Residents or Fellows P=Public

### National/International

- 1. **Clinical Experiences with Histotripsy**. Detecting, Mapping, and Quantifying Bubble Activity in Therapeutic Ultrasound Workshop. October 22, 2021. Online.
- 2. THERESA Study First in Human experience with Histotripsy in the treatment of solid liver lesions. Histosonics Webinar. October 7, 2020. Online.
- 3. Can This Be Biopsied? How to Manage the Difficult Requests. SAR 2018. Scottsdale, AZ. March 8, 2018.
- 4. Update: The Role of Ultrasound in Screening Patients with Chronic Liver Disease. American College of Radiology. Washington, DC. May 21, 2015 (F, R/F)
- 5. Case of the Week: Selected Cases. WCIO. New York, NY. May 8, 2015.
- Ultrasound in Interventional Radiology. American College of Veterinary Radiology Annual Meeting (Veterinary Ultrasound Society Keynote Speaker). St. Louis, MO. October 24, 2014 (F)
- 7. End-of-Rotation Evaluations: Program Development and Application to Milestones. APDR Teaching Certificate Program. Association of University Radiologists Los Angeles, CA. April 12, 2013. (F)



SCHOOL OF MEDICINE AND PUBLIC HEALTH

### JRRICULUM VITAE

8. Percutaneous Microwave Ablation of Hepatic Malignancies. NeuWave Dinner Symposium. Miami, FL. Jan 18, 2013. (F)

### State & Regional

- 1. The Incidentaloma: What Do I Do With This? 2015 UW Primary Care Conference. Madison, WI. November 5, 2015. (F)
- 2. Hepatic Tumor Ablation: Indications and Current Evidence. Technology Assessment 2012. Madison, WI. Sep 26, 2012. (P)
- 3. Characterizing and Localizing Hepatic Masses. South Central Wisconsin Ultrasound Society (SCWUS). Madison, WI. April 9, 2012. (F)

### Departmental/Institutional

- 1. Focused Ultrasound Histotripsy: The evolution of local tumor ablation. University of Wisconsin-Madison Medical Physics Grand Rounds. Madison, WI, February 7, 2022.
- 2. Abdominal Wall Free Perforator Flaps: Imaging Approach to Surgical Planning. University of Wisonsin-Madison Plastic Surgery Grand Rounds. Madison, WI, December 16, 2020.
- 3. Fusion Imaging. South Central Wisconsin Ultrasound Society. Madison, WI, March 9, 2020.
- 4. Robotically Assisted Sonic Therapy (RAST) For Non-Invasive Hepatic Ablation in a Porcine Model: Mitigation of Body Wall Damage With a Modified Pulse Sequence. Zachary Clark Radiology Research Symposium. Madison WI, May 5, 2018.
- 5. Uroradiology Cases and Ultrasound Contrast. Urology Weekly Conference. August 31, 2016. (F, R/F, M)
- 6. \*Masana J (OB/Gyn resident), Ziemlewicz TJ. Acute Pelvic Pain in Women of Reproductive Age: Clinical and Imaging Review of Gynecological Causes. Combined Departments of Radiology, OB/Gyn, and Emergency Medicine Grand Rounds. November 13, 2014. (F, R/F, M)
- 7. An Introduction to Clinical Microwave. Neuwave Visiting Physician Animal Laboratory. Madison, WI. Nov 5, 2013. (F)
- 8. Locoregional Therapy Follow-up. VIR Didactic Lecture Series. March 4, 2013(F, R/F)
- 9. Ziemlewicz TJ, Robbins JB, Grayev AG. Tracking End-of-Rotation objective assessment data: Utility for the Clinical Competency Committee and



### **CURRICULUM VITAE**

**Curriculum Improvement**. Program Director's Retreat; Madison, WI. January 28, 2014. (F)

 Robbins JB, Ziemlewicz TJ, Grayev AG. Developing a GME database to track trainee outcomes. Program Director's Retreat; Madison, WI. September 24, 2012. (F)

#### Visiting Professorship/Invited Grand Rounds

Site: University of Chicago, Chicago, IL Topic(s): Histotripsy: The evolution of local tumor ablation Date: 5/4/2022

Site: Spectrum Health Radiology, Grand Rapids, MI Topic(s): Liver Transplantation: Role of Radiology Date: 4/26/2019

#### Posters

- Posielski N, Bui A, Wells S, Best S, Mankowski Gettle L, Ziemlewicz T, Lubner M, Hinshaw L, Lee F Jr, Allen G, Nakada S, Abel J. "The Impact of Institutional and Individual Experience on Complications and Non-Diagnostic Rates Following Core Renal Mass Biopsy." 19<sup>th</sup> Annual Meeting of Society of Urologic Oncology. Phoenix, AZ. November, 28 2018.
- Khemees Ta, Bui A, Shapiro D, Best SL, Wells SA, Ziemlewicz T, Lubner M, Hinshaw J, Lee F Jr., Jarrard DF, Richards KA, Downs TM, Nakada S, Abel EJ. Survey of renal mass biopsy utilization among urologic oncologists. 19<sup>th</sup> Annual Meeting of Society of Urologic Oncology. Pheonix, AZ. November 28, 2018.
- 3. Agarwal PD, Haftoglou B, **Ziemlewicz T**, and Said A. The prevalence of psychosocial barriers and their impact on receipt of HCC-specific care in US veterans: Role of multidisciplinary tumor board model of care. The Liver Meeting 2018. San Francisco, CA. Nov 9, 2018.
- Knott EA, Swietlik J, Longo K, Watson R, Green C, Abel EJ, Lubner MG, Hinshaw LJ, Smolock A, Lee FT, Xu Z, Ziemlewicz TJ. Robotically Assisted Sonic Therapy (RAST) for Renal Ablation in a Porcine Model: Initial Preclinical Results. WCIO. Boston, MA. June 7-10, 2018.
- 5. Swietlik J, Longo K, Knott EA, Lee FT, Hinshaw JL, Wells SA, Lubner MG, Brace C, **Ziemlewicz TJ**. Safety of Percutaneous Microwave Tumor Ablation in Patients with Implanted Cardiac Devices: A Single Center Retrospective Review. WCIO. Boston, MA. June 7-10, 2018.



### **CURRICULUM VITAE**

- Posielski NY, Bui A, Wells SA, Best SL, Mankowski Gettle L, Ziemlewicz TJ, Lubner MG, Hinshaw JL, Lee Jr FT, Nakada SY, Able EJ. Complications following 1053 percutaneous core renal mass biopsies: Risk Factors and Safety Assessment. American Urological Association, San Francisco, California, May 18-21, 2018.
- Swietlik J, Longo K, Knott E, Lee F, Hinshaw L, Wells S, Lubner M, Brace C, Ziemlewicz T. Safety of Percutaneous Microwave Tumor Ablation in Patients with Implanted Cardiac Devices: A Single Center Retrospective Review. Zachary Clark Radiology Research Symposium. Madison, WI. May 5, 2018.
- 8. Lim AH, Heckman JE, **Ziemlewicz TJ**, Best SL, Wells SA, Lubner MG, Hinshaw JL, Lee FT Jr, Nakada SY, Abel EJ. Role of biopsy in management of large, locally advanced and metastatic renal masses. American Urological Association, May 2017.
- 9. Lim AH, Wells SA, Grimes MD, Wittmann TA, Best SL, Hinshaw JL, Lee FT Jr, Lubner MG, **Ziemlewicz TJ**, Nakada SY, Abel EJ. Should pathologic diagnosis be obtained prior to renal mass ablation? American Urological Association, May 12, 2017.
- 10. Best SL, Johnson B, Wells SA, Lubner MG, **Ziemlewicz TJ**, Hinshaw JL, Lee FT Jr, Nakada SY, Abel EJ. Long-term outcomes of cryoablation for biopsyproven RCC: Size Matters. American Urological Association, May 2017.
- 11. Johnson B, Wells SA, Best SL, Hartung M, **Ziemlewicz TJ**, Lubner MG, Hinshaw JL, Lee FT Jr, Nakada SY, Abel EJ. Percutaneous microwave ablation for clinical T1b renal cell carcinomas. American Urological Association, May 2017.
- 12. Johnson B, Lim AH, Wells SA, Best SL, Hartung M, Lubner MG, **Ziemlewicz TJ**, Hinshaw JL, Lee FT Jr, Huang W, Yang R, Nakada SY, Abel EJ. Does Routine biopsy improve detection of residual RCC post microwave ablation? American Urological Association, May 2017.
- Chen B, Wong V, Ziemlewicz T, Gettle LM. "Hepatic Geography Navigating the Islands and Continents of Diffuse Liver Disease." 117<sup>th</sup> Annual Meeting of the American Roentgen Ray Society. New Orleans, LA April 2017.
- Hinshaw A, Abel E J, Lubner, M, Wells, S, Ziemlewicz TJ, Lee FT Jr., Best S, Hinshaw JL. Comparing outcomes for percutaneous microwave ablation, cryoablation and surgery for treatment of sporadic RCC 4cm. Society of Abdominal Radiology 2017 Annual Scientific Meeting and Educational Course. Hollywood, Florida. March 26 - 31,2017.
- 15. Chen B, Wong V, **Ziemlewicz**, Gettle LM. "Hepatic Geography Navigating the Islands and Continents of Diffuse Liver Disease." 117<sup>th</sup> Annual Meeting of



the American Roentgen Ray Society. Hollywood, FL March 2017. Magna Cum Laude

- Jeanette Comstock; Timothy J. Ziemlewicz; Meghan G. Lubner; Shane A. Wells; Fred T. Lee, Jr; J. Louis Hinshaw. Clinical outcomes of percutaneous microwave ablation for hepatic metastasis with a modern generation system. Society of Abdominal Radiology 2017 Annual Scientific Meeting and Educational Course. Hollywood, Florida. March 26 - 31,2017.
- 17. Wells SA\*, Mankowski Gettle L, **Ziemlewicz TJ**, Mithqal A, Hinshaw JL, Lee FT Jr, Lubner MG. Split-bolus CT Urography after Microwave Ablation of Renal cell carcinoma: Feasibility, image quality and radiation dose reduction. Presented at Radiological Society of North America, Nov, 2016.
- 18. Graffy P, **Ziemlewicz TJ**, Pickhardt PJ. Prevalence of vertebral compression fractures at abdominal CT according to trabecular attenuation. Presented at the 2016 RSNA Scientific Assembly
- Repplinger MD, Kinner S, Pickhardt PJ, Harringa JB, Robbins J, Ziemlewicz T, Kitchin D, Gill K, Riedesel E, Reeder SB. Prospective comparison of contrast-enhanced MRI versus contrast-enhanced CT imaging for suspected appendicitis in children and young adults. Presented at the ASER 2016 Annual Meeting. September 14, 2016.
- Lee FT Jr., Abel E J, Best S L, Nakada S, Hinshaw JL, Lubner M, Ziemlewicz TJ, Wells S, Wittmann, T. Comparing outcomes for percutaneous microwave ablation, cryoablation and surgery for treatment of sporadic RCC 4cm. World Congress on Interventional Oncology. Boston, MA, June 9-12, 2016.
- 21. Wong VK, Wells SA, Hinshaw JL, Best SL, **Ziemlewicz TJ**, Lubner MG, Lee FT Jr. Abel EJ. Thermal ablation of small renal masses: Should biopsy take place prior to or during the ablation procedure? World Congress on Interventional Oncology. Boston, MA, June 9-12, 2016.
- 22. Smolock AR, Cristescu M, Carberry G, Wells SA, **Ziemlewicz TJ**, Lubner MG, Hinshaw JL, Brace CL, Lee FT Jr. Hepatic Microwave Ablation near Critical structures: Should you expect complications on imaging follow up? Presented at World Conference of Interventional Oncology, June 9-12, 2016.
- 23. **Ziemlewicz TJ**, Hinshaw JL, Lubner M, Wells S, Alexander M, Lee FT Jr. Benign abdominal tumors: percutaneous ablation should be the first line. World Congress on Interventional Oncology. Boston, MA, June 9-12, 2016.
- 24. Laeseke P, **Ziemlewicz TJ**, Lubner MG, Hinshaw JL, Wells SA, Lee FT Jr. Clinical outcomes of percutaneous microwave ablation for hepatocellular carcinoma with minimum 1-year follow-up. World Congress on Interventional Oncology Boston, MA. June 9-12, 2016.



- 25. Averill S, Wells SA, Hinshaw JL, Best SL, **Ziemlewicz TJ**, Lubner MG, Lee FT Jr. Abel EJ. Thermal ablation of metastatic renal cell carcinoma: Safety and local oncologic efficacy. World Congress on Interventional Oncology Boston, MA. June 9-12, 2016.
- Smolock A, Cristescu M, Carberry G, Wells S, Ziemlewicz TJ, Lubner M, Hinshaw JL, Brace CL, Lee F. Hepatic microwave ablation near critical structures: microwave goodbye to complications. SAR 2016 Annual Scientific Meeting and Educational Course. Waikoloa, Hawaii. March 13 - 18, 2016.
- 27. Holznecht C, Maddox E, **Ziemlewicz T**. Microsurgical Perforator Flaps: What the Plastic Surgeon Wants to Know. Society of Abdominal Radiology 2016 Annual Scientific Meeting and Educational Course. Waikoloa, Hawaii. March 13 - 18, 2016.
- 28. Lee MH, Lubner MG, Hinshaw JL, **Ziemlewicz TJ**, Wells SA, Brace C, Lee Jr FT. Guilty or Guilt by Association: Percutaneous ablation complications and their mimics. Presented at the 2015 RSNA Scientific Assembly. November 2015.
- Klapperich ME, Wells SA, Best SL, Ziemlewicz TJ, Lubner MG, Nakada SY, Hinshaw JL, Brace CL, Lee FT Jr, Abel EJ. Percutaneous microwave ablation of 100 T1a Renal Cell Carcinomas: Effect of Tumor Complexity and Technique on Efficacy and Complications. Presented at the 13<sup>th</sup> Annual UWSMPH Medical Student Research Forum, November 2015
- 30. Blute M, Princea J, Bultman E, Hinshaw JL, Drewry A, Best S, Lee FT, Ziemlewicz TJ, Lubner M, Shi F, Nakada S, Abel EJ. Predictors of nondiagnostic renal mass biopsy findings. Accepted to the American Urological Association annual meeting. New Orleans, LA, May 15-19, 2015.
- Heckman JE, Ziemlewicz TJ, Best S, Lubner MG, Hinshaw JL, Jarrard DF, Downs T, Huang W, Lee FT, Nakada SY, Abel EJ. Multi-quadrant biopsy technique decreases sampling error in large heterogeneous renal tumors. Accepted to the American Urological Association annual meeting. New Orleans, LA, May 15-19, 2015.
- Bookwalter CA, Repplinger MD, Pickhardt PJ, Robbins JB, Ziemlewicz TJ, Kitchin D, Reeder SB. Prospective evaluation of contrast-enhanced MRI for non-traumatic, non-appendicitis acute abdomen with Direct Comparison to MDCT. Presented at the ISMRM 2015 Annual Meeting
- Smolock A, Cristescu M, Woods M, Pinchot J, Ziemlewicz T, Lubner M, Dalvie P, Brace C, McDermott J, Hinshaw JL, Brunner MC, Ozkan O, Lee jr FT. Treatment of hepatocellular carcinoma with combination TACE+ MW Ablation vs TACE monotherapy: A Lesion-by-Lesion Analysis. Presented at



SCHOOL OF MEDICINE AND PUBLIC HEALTH

### CURRICULUM VITAE

2015 World Congress on Interventional Oncology (awarded Poster of Excellence). May 6, 2015.

- 34. Hinshaw JL, Ziemlewicz T, Lubner M, Wells SA, Brace C, Sampson L, Alexander M, Lee Jr FT. Percutaneous Microwave Ablation of Hepatic Metastases with High-powered, Gas-cooled Antennas: An Update with 20month mean imaging follow up. Presented at 2015 World Congress on Interventional Oncology
- 35. **Ziemlewicz TJ**, Hinshaw JL, Lubner MG, Wells SA, Brace CL, Alexander ML, Agarwal PA, Lee FT Jr. Percutaneous microwave ablation of hepatocellular carcinoma: safety and efficacy for a 4-year experience treating 150 tumors. Accepted to World Congress on Interventional Oncology. New York, NY, May 6-9.2015.
- 36. Hinshaw JL, Loomis SB, Lubner MG, Ziemlewicz TJ, Kim DH, Pickhardt PJ, Kitchin DR, Lee FT. Patients with emphysema: what is the actual risk of pneumothorax-related complications for these patients during percutaneous biopsy? Radiological Society of North America Chicago, IL November 2014.
- 37. \*Young BK (radiology resident), **Ziemlewicz TJ**, Robbins JB, Masana J, Sadowski EA. Acute Pelvic Pain in Women of Reproductive Age: Imaging of Gynecological Causes. Radiological Society of North America Chicago, IL November 2014.
- 38. Repplinger MD, Pickhardt PJ, Kitchin D, Robbins J, Ziemlewicz TJ, Reeder SB. Direct comparison of a magnetic resonance imaging protocol with computed tomography to diagnose appendicitis. UW Department of Medicine Research Day Madison, WI May 2014.
- 39. Potretzke TA, Ziemlewicz TJ, Hinshaw JL, Lubner MG, Kitchin DK, Brace CL, Center ML, Lee FT. Microwave ablation of hepatic adenomas: initial experience with 10 adenomas. World Congress on Interventional Oncology. New York, NY, May 11-14, 2014.
- 40. Moreland AJ, Wells SA, Fischman TJ, Ziemlewicz TJ, Best SL, Shenkman NS, Lippert MC, Hinshaw JL, Lubner MG, Brace CL, Abel EJ, Lee FT. Percutaneous microwave ablation of renal cell carcinoma: multicenter evaluation of feasibility, safety and efficacy. World Congress on Interventional Oncology. New York, NY, May 11-14, 2014.
- 41. Ziemlewicz TJ, Brace CL, Willey BJ, Lubner MG, Hinshaw JL, Sampson LA, Warner TF, Lee FT. Ultrasound predicts pathologic zone of necrosis better than non-contrast CT during RF and microwave ablation. World Congress on Interventional Oncology. New York, NY, May 11-14, 2014.
- 42. Cristescu M, Ziemlewicz TJ, Kitchin D, Abel EJ, Hedican SP, Lubner MG,



### **CURRICULUM VITAE**

Hinshaw JL, Brace CL, Lee FT. Percutaneous microwave ablation for the treatment of renal angiomyolipoma: initial experience. World Congress on Interventional Oncology. New York, NY, May 11-14, 2014.

- 43. Lubner MG, **Ziemlewicz TJ**, Hinshaw JL, Lee FT, Brace CL, Center M. Nuts and Bolts of Microwave Ablation. Radiological Society of North America Chicago, IL December, 2013. **Certificate of Merit.**
- 44. Lubner MG, **Ziemlewicz TJ**, Kitchin DR, Hinshaw JL, Lee FT, Brace CL. Making the Undoable Case Doable: Advanced Adjunctive Techniques in Percutaneous Ablation. Radiological Society of North America Chicago, IL December, 2013.
- 45. Lubner MG, Lam V, Kim DH, Hinshaw JL, Robbins JR, **Ziemlewicz TJ**, et al. Computer-aided detection of colorectal polyps at CTC: prospective evaluation of clinical performance and third-party reimbursement. Radiological Society of North America Annual Meeting. Chicago, IL, December 1-6, 2013.
- 46. Lubner M, **Ziemlewicz T**, Cohn A, Center ML, Wells S, Brace CL, Hinshaw JL, Lee FT. Microwave ablation of symptomatic hepatic cavernous hemangiomas. World Congress on Interventional Oncology. New York, NY, May 16-19, 2013.
- 47. Patel-Lippmann K, Boyum J, **Ziemlewicz T**, Robbins J, Sabo L, Sadowski E. Pain and Bleeding in the First Trimester: Ultrasound Evaluation. American Roentgen Ray Society. Washington, DC April 2013. **Silver Medal**
- 48. Knavel EM, Brace CL, Lubner MG, **Ziemlewicz TJ**, Hinshaw JL, Lee FT. CT appearance of thermal ablation zones in hepatic malignancy: Radiofrequency vs. Microwave. Society of Abdominal Radiology Annual Meeting. Maui, Hawaii, Feb 24- March 1, 2013.
- 49. **Ziemlewicz TJ**, Hinshaw JL, Lubner MG, Brace CL, Sampson LA, Center M, Lee FT Jr. Percutaneous hepatic microwave ablation with high-powered, gascooled antennas: Short term Results in 87 patients. CIO. Miami, FL. Jan, 2013.
- 50. Maciejewski A, **Ziemlewicz TJ**, Binkley NC, Brett A, Brown JK, Pickhardt PJ. Comparison of DXA and quantitative CT bone mineral density measurement using contrast enhanced scans at the proximal femur: Implications for opportunistic osteoporosis screening. Presented at the late-breaking poster session, ASBMR 2013 Annual Meeting
- 51. Maciejewski A, **Ziemlewicz TJ**, Binkley NC, Brett A, Brown JK, Pickhardt PJ. Direct comparison of pre- and post-contrast enhanced scans for quantitative CT bone mineral density measurement at the proximal femur: Implications for



### **CURRICULUM VITAE**

opportunistic osteoporosis screening. Presented at the late-breaking poster session, ASBMR 2013 Annual Meeting

- 52. \*Kim D (medical student), Kitchin D, **Ziemlewicz T**. The Portal Venous System: Our Window to the Liver. Radiological Society of North America Chicago, IL November 2012.
- 53. \*Akselrod D (abdominal radiology fellow), Poore S, Afifi A, **Ziemlewicz T**. Inferior Epigastric Artery Perforator Flaps: How to Supply the Plastic Surgeon with the Information They Want. Radiological Society of North America Chicago, IL November 2012. **Certificate of Merit**
- 54. Hinshaw JL, Lubner MG, **Ziemlewicz TJ**, Lee FT Jr, Center M, Brace CL. Choose Your Weapon: RF, Cryo or MW Ablation: What should you choose and Why? Radiological Society of North America Chicago, IL November 2012. **Cum Laude Award**
- 55. **Ziemlewicz T**. Liver Segments: Beyond Couinaud. Association of University Radiologists San Antonio, TX March 2012.
- 56. **Ziemlewicz TJ**, Brace CL, Chiang J, Bedoya M, Lubner MG, Hinshaw JL, Sampson LA, Lee FT Jr. Translational Development of Microwave Tumor Ablation: The University of Wisconsin Story. UW CCC Annual Retreat, Feb 2012
- 57. **Ziemlewicz TJ**, Lubner MG, Hinshaw JL, Brace CL, Sampson LA, Lee FT. Radiologic-pathologic correlation of RF and microwave ablations: postablation ultrasound predicts ablation zone dimensions as well as biphasic CT in normal swine liver. Radiological Society of North America Annual Meeting. Chicago, IL, November 27 – December 2, 2011.
- 58. Hinshaw J, Lubner M, Brace C, **Ziemlewicz T**, Lee F. Image-guided Percutaneous Ablation of Benign Hepatic Masses: Why Operate When You Don't Have To? Radiological Society of North America Chicago, IL November 2011. **Certificate of Merit**.
- 59. Brace C, Lubner M, Hinshaw J, Lee T, **Ziemlewicz T**. Microwave Tumor Ablation: Developmental History, Current Practice, and Future Trends. Radiological Society of North America Chicago, IL November 2011.
- 60. Lubner M, Hinshaw J, Brace C, **Ziemlewicz T**, Lee F. Spectrum of Adjunctive Techniques Used in Percutaneous Ablation. Radiological Society of North America Chicago, IL November 2011.
- 61. **Ziemlewicz TJ**, Hinshaw JL, Lubner MG, Brace CL, Sampson LA, Lee FT. Percutaneous ablation with a high-powered, gas-cooled microwave system: Initial clinical experience. World Congress on Interventional Oncology. New



York, NY, June 9-12, 2011.

### **Clinical Multidisciplinary Conferences**

Hepatobiliary Conference (Physicians, Staff and Residents) -Weekly conference, present 4-5/year; 2010-present UWHC Liver Tumor conference -Weekly conference, present 10-12/year; 2011-present Renal Tumor conference -Monthly conference, present 3-4/year; 2012-present VA Liver Tumor conference -Bi-weekly conference, present 25/year; 2014-present -Radiology director

### Mentoring

Research mentor to students, residents, fellows, and junior faculty, 2011-present

Daehee Kim; medical student (2011-2012), currently Assistant Professor in Interventional Radiology at Brown University

Dmitri Akselrod, MD; Abdominal Radiology Fellow (2011-2012), currently Assistant Professor at University of Vermont

James Boyum MD; Radiology Resident (2011-2013), currently Assistant Professor at Mayo Clinic-Rochester, MN

Bryce Young, MD; Radiology Resident (2012-2014)

Jill Masana, MD; Obstetrics and Gynecology Resident (2014)

Theodora Potretzke, MD; Radiology Resident (2011-2014), currently Assistant Professor at Mayo Clinic- Rochester, MN

Mircea Cristescu, MD; Radiology Resident (2012-2016), currently Assistant Professor at Medical College of Wisconsin

Amanda Smolock, MD; Radiology Resident (2012-2016), currently Assistant Professor at Medical College of Wisconsin

Anna Moreland, Medical Student (2012-2015), Staff Physician, Washington DC VA Medical Center

Alyssa Maciejewski, Undergraduate student (2013-present), currently Radiology Resident at Aurora St. Lukes- Milwaukee, WI

Paul Hickey, Undergraduate student (2014), currently medical student at



Rosalind Franklin University

Justin Dinan, Undergraduate student (2015-2017)

Jeanette Comstock, Medical Student (2016-2017), currently Dermatology resident at University of Wisconsin

CJ Thao, Undergraduate Student (2017-2018)

Emily Knott, Undergraduate Student and then research intern (2017-current), currently medical student at Cleveland Clinic

Katherine Longo, Radiology Resident and Interventional Radiology Fellow (2017current), currently staff physician at ProHealth Waukesha, WI

John Swietlik, Radiology Resident, Interventional Radiology Fellow, Junior Faculty (2018-current), currently Assistant Professor at University of Wisconsin

Annie Zlevor, Research Intern and Medical Student (2018-current), currently medical student at University of Wisconsin

Kaitlyn Jackson, Undergraduate Student (2018-current), currently medical student at Rush University

Scott Mauch, Radiology Resident and Abdominal Imaging and Intervention Fellow (2018-current), currently Abdominal Imaging and Intervention Fellow at University of Wisconsin

Lindsay Stratchko, Junior Faculty (2019-current), currently Assistant Professor of Radiology at University of Wisconsin

Meridith Kisting, Research Intern (2021-current), currently research intern at University of Wisconsin

Lukas Versaggi, Undergraduate student (2021-current), currently undergraduate student at University of Wisconsin

#### PhD Thesis Committee

Wenjun Yang, 2015-2018

#### **Service Activities**

### Departmental

2014-Present

Chair, Clinical Competency Committee University of Wisconsin Department of Radiology Madison, WI



**CURRICULUM VITAE** 

201	2- 2015	Member, Radiology IT Oversight Committee University of Wisconsin Madison, WI
201	1- Present	Member, Resident Selection Committee University of Wisconsin Department of Radiology Madison, WI
201	0-2015 C	o-Creator of and Director, Radiology Resident Testing Program University of Wisconsin Madison, WI
201	0- Present	Member, Resident Education Committee University of Wisconsin Department of Radiology Madison, WI
200	8- 2009	Member, Resident Selection Committee Wayne State University Department of Radiology Detroit, MI
200	7- 2009	Member, Resident Education Committee Wayne State University Department of Radiology Detroit, MI
Medical School/Hospital		
201	4-present	Physician Sponsor, HOPE Program University of Wisconsin Hospital and Clinics Madison, WI
201	3- 2014	Member, Curriculum Redesign Committee, Systems-based Practice Subcommittee University of Wisconsin School of Medicine and Public Health Madison, WI
200	8	Member, Mock Site Visit for Neurology Residency Wayne State University Detroit, MI
Nationa	al/International	
202	2	Co-chair, Organizing Committee for 2022 Histotripsy Symposium
201	9- Present	Planning Committee, Histotripsy Symposium



# CURRICULUM VITAE

	2014- 2017	Moderator, Ablation Forum, io-central.org (World Congress on Interventional Oncology)
	2012- 2015	Gastrointestinal Subcommittee of the Education Exhibits Committee (Radiological Society of North America)
	2011- 2014	Association of Clinical Educators in Radiology Education Committee
	2011-2014	Association of Clinical Educators in Radiology Award Committee
	2009	Association of Academic Chief Residents in Radiology Representative to the American Board of Radiology
	2009	Problem Solving Session host Association of University Radiologists annual meeting
	2009	Member, Program Planning Committee for Association of University Radiologists annual meeting
	2008	Brogdon Panel Host Association of University Radiologists annual meeting
Jou	rnal Activities	
	2019-Present 2019-Present 2018-Present 2018-Present 2018-Present	Ad Hoc Reviewer, Osteoporosis International Ad Hoc Reviewer, Annals of Internal Medicine Ad Hoc Reviewer, European Radiology Ad Hoc Reviewer, Radiology Editorial Board and Section Editor, International Journal of Hyperthermia
	2016-2019	Associate Editor, Abdominal Radiology
	2016-Present	Ad Hoc Reviewer, Journal of Vascular and Interventional Radiology
	2015-2016	Co-Editor, Special Issue on Abdominal Intervention, Abdominal Radiology
	2015-Present	Ad Hoc Reviewer, American Journal of Roentology
	2013-Present	Ad Hoc Reviewer, Abdominal Radiology (formerly Abdominal Imaging)
	2013-Present	Ad Hoc Reviewer, Cardiovascular and Interventional Radiology
	2012-Present	Ad Hoc Reviewer, International Journal of Hyperthermia