

PUBLICATIONS (BOOKS, BOOK CHAPTERS & Magazine Articles)

1. Osborne, D. (2005). *Quantification of Neoplasm Activity Concentration in Simple Pulmonary Nodules*. Master's Thesis, University of Tennessee, Physics, Knoxville.
2. Gleason, S., Paulus, M. J., & Osborne, D. (2010). Principles of MicroCT X-ray Computed Tomography. R. Weissleder, Brian D. Ross, Alnawaz Rehemtulla & Sanjiv S. Ghambir, *Molecular Imaging: Principles and Practice* (p. 54-75). Shelton, CT: People's Medical Publishing House.
3. Osborne, D., Arcot, S., (2011). Software Tools Aid Real-time Small-Animal Imaging. *Drug Discovery & Development*.
4. Osborne, Dustin Ryan, "Characterization of a Small Animal SPECT Platform for use in Preclinical Translational Research." PhD diss., University of Tennessee, 2011.
http://trace.tennessee.edu/utk_graddiss/1211

PUBLICATIONS (JOURNALS)

1. Feng, B. M., Chen, M. M., Bai, B. M., Smith, A. M., Austin, D. M., Mintzer, R. M., et al. (2009 (patented)). Modeling of the Point-Spread Function by Numerical Calculations in Single-Pinhole and Multi-Pinhole SPECT Reconstruction. *IEEE Transactions on Nuclear Science*, 57, 173-180.
2. Woodward J, Kennel SJ, Stuckey A, Osborne D, **Wall J**, Rondinone AJ, Standaert RF, Mirzadeh S. [LaPO4 nanoparticles doped with actinium-225 that partially sequester daughter radionuclides](#). *Bioconjug Chem*. 2011 Apr 20;22(4):766-76.
3. Wall JS, Richey T, Williams A, Stuckey A, Osborne D, Martin E, Kennel SJ. [Comparative Analysis of Peptide p5 and Serum Amyloid P Component for Imaging AA Amyloid in Mice Using Dual-Isotope SPECT](#). *Mol Imaging Biol*. 2011 Oct 25. PMID:22042488
4. Bruckbauer, A., Zemel, M. B., Thorpe, T., Akula, M. R., Stuckey, A. C., Osborne, D., Martin, E. B., et al. (2012). Synergistic effects of leucine and resveratrol on insulin sensitivity and fat metabolism in adipocytes and mice. *Nutrition & metabolism*, 9(1), 77. doi:10.1186/1743-7075-9-77
5. Osborne DR, Yan S, Stuckey A, Pryer L, Richey T, et al. (2012) Characterization of X-ray Dose in Murine Animals Using microCT, a New Low-Dose Detector and nanoDot Dosimeters. *PLoS ONE* 7(11): e49936. doi:10.1371/journal.pone.0049936
6. Joshua A Rowe, Federica Morandi, Jonathan S Wall, Murthy Akula, Stephen J Kennel, Dustin Osborne, Emily B Martin, Gina D Galyon, Misty J Long, Alan C Stuckey, Amy K Leblanc . **WHOLE-BODY BIODISTRIBUTION OF 3'-DEOXY-3'-[18 F]FLUOROTHYMININE (18 FLT) IN HEALTHY ADULT CATS**. *Veterinary Radiology & Ultrasound*. 2013 Mar 7. doi: 10.1111/vru.12024

PUBLICATIONS (Innovative Interactive Educational Media and Technologies; e.g., multimedia, CAI, Internet, electronic media)

1. Gleason, Shaun, Kemp, Bradley, Austin, Derek, Yan, Shikui, Pressley, Danny, Newport, Danny, Carothers, Mark, Osborne, Dustin, Kincaid, Stephen, Bailey, David; **A novel PET-CT acquisition and analysis workflow for small animal imaging systems**; J NUCL MED MEETING

ABSTRACTS PRESENTED AND PUBLISHED:

1. Chen, M. M., Osborne, D. M., & Gleason, S. M. (2008). Automated CT-Based Attenuation Correction for Inveon Multimodality PET/CT. *IEEE-Symposium Conference Record*. Dresden: IEEE.
2. Feng, B. M., Chen, M. M., Bai, B. M., Smith, A. M., Austin, D. M., Mintzer, R. M., et al. (2009)(patented 2008: 20100080339). Modeling of the Point-Spread Function by Numerical Calculations in Single-Pinhole and Multi-Pinhole SPECT Reconstruction. *IEEE Transactions on Nuclear Science*, 57, 173-180.
3. Gleason, S., Kemp, B., Austin, D., Yan, S., Pressley, D., Newport, D., et al. (2007). A Novel PET-CT Acquisition and Analysis Workflow for Small Animal Imaging Systems. *Society of Nuclear Medicine Conference Record*. Washington, DC: Society of Nuclear Medicine.
4. Gleason, S., Kemp, B., Austin, D., Yan, S., Pressley, D., Newport, D., et al. (2007). A Novel PET-CT Acquisition and Analysis Workflow for Small Animal Imaging Systems. Providence, RI, USA.
5. Osborne, D. (2009). Optimization of Transmission Imaging Protocols for a Small Animal PET Scanner. *World Molecular Imaging Congress*. Montreal.
6. Osborne, D. R., & Miller, L.F. (2008). Startup and Shutdown Thermal Modeling of a Pressurized Water Reactor Simulator. *Nuclear Science Symposium Conference Record*. Dresden: IEEE.
7. Osborne, D., & Gleason, S. (2008). Study of CT-based Attenuation Correction Factors for microPET using kVp Dependent HU Calibration. *World Molecular Imaging Congress Conference Record*. Nice: World Molecular Imaging Congress.
8. Osborne, D., Hou, J., Graves, G., & Miller, L.F. (2007). Development of a Modern Pressurized Water Reactor Simulator: Instrumentation, Design and Data Acquisition. *Nuclear Science Symposium Conference Record*. Honolulu: IEEE.
9. Osborne, Dustin; Farhoud, Mohammed; Nino, Meerna. (2008). Characterization of μ -values with Varying Activity in the PET FOV. *World Molecular Imaging Congress Conference Record*. Montreal. World Molecular Imaging Congress.
10. Austin, Derek; Osborne, Dustin; Chen, Mu; Deng, Jujun; Feng, Bing; Yan, Shikui. (2009). Feasibility and Performance of Simultaneous SPECT-CT Imaging. *World Molecular Imaging Congress*. Montreal. World Molecular Imaging Congress
11. Osborne, D., Stuckey, A., Wall, J. (2011). Dose Reduction Techniques for Small Animal CT. *Society of Nuclear Medicine Conference Proceedings*. Journal of Nuclear Medicine Vol. 52 (Supplement):1957.

12. Wall, J.S., Martin, E., Richey, T., Stuckey, A., Osborne, D., Kennel, S. (2011). Stable and rapid binding of ¹²⁴I-labeled peptide p5 to visceral amyloid in vivo as evidenced by dynamic PET imaging. *2011 World Molecular Imaging Congress*, San Diego, CA, September 7th – 10th 2011.
13. Osborne, D., (2012). Feasibility of Dual Energy CT Processing Using the Inveon Research Workplace. *1st British Siemens Inveon User Meeting*. London.
14. Osborne, D. (2012). Advancements in the Inveon Research Workplace: Preclinical Visualization & Analysis Software. *1st British Inveon User Meeting*. London.
15. Austin, D., Osborne, D. (2012). Inveon SPECT Imaging – Best Practices. *1st British Inveon User Meeting*. London.
16. Yan, S., Austin, D., Osborne D., Bruckbauer, T., (2012). Inveon Imaging – New Development. *1st British Inveon User Meeting*. London.
17. Martin, E., Kennel, S., Richey, T., Stuckey, A., Osborne, D., Wall, J.S. (2012). The amyloidophilic peptide p5 binds rapidly and stably to visceral amyloid in vivo - A potential radiotracer for PET/CT imaging. *XIIIth International Symposium on Amyloidosis*, Groningen, Netherlands, May 6th – 10th.
18. Osborne, D., Stuckey, A., Richey, T., Kennel, S., Pryer, L., Wall, J. (2012) First Characterization of X-ray Dose in Murine Animals Using the Inveon CT Platform and nanoDot Dosimeters. *Society of Nuclear Medicine Conference Proceedings. (Poster Award Nominee)*.
19. Osborne, D., Stuckey, A., Kennel, S., Richey, T., Pryer, L., Yan, S., Wall, J. (2012) Dose Reduction in Small Animal Imaging Using a Modified Phosphor Screen. *Society of Nuclear Medicine Conference Proceedings. Oral Presentation*.
20. Wells, K., Wall, J., Kennel, S., Martin, E., Osborne, D., Stuckey, A. (2012) Radioimmunology of Amyloid Deposits in AL Amyloidosis. *Society of Nuclear Medicine Conference Proceedings. Oral Presentation. Miami*.
21. Martin, E., Kennel, S. Richey, T. Stuckey, A., Osborne, D. & Wall, J.S. (2012). The peptide p5 binds rapidly to visceral amyloid in vivo and persists for more than 72 h rendering it suitable for PET/CT imaging using ¹²⁴I. *Society of Nuclear Medicine*.
22. Osborne, D., Stuckey, A., Kennel, S., Richey, T., Austin, D.W., Feng, B., Wall, J. (2012). I-131 Rodent Imaging on the Inveon SPECT Platform Using a Novel Blended Collimator Acquisition Method. *World Molecular Imaging Congress. Dublin*.
23. Osborne, D., Aykac, D., Gleason, S., Kerekes, R., Wall, J., Gregor, J., Paquit, V. (2012). Whole Body Murine Organ Segmentation Using microCT and Advanced 3D Level Set Algorithms. *World Molecular Imaging Congress. Dublin. (Poster Award Nominee)*.
24. Gsell, W., Osborne, D. (2012). Towards Standardized Dual Energy Processing for Preclinical microCT. *World Molecular Imaging Congress. Dublin. (Poster Award Nominee)*.
25. Austin, D.W., Feng, B., Stuckey, A., Osborne, D. (2012). Validation of a depth of interaction model for a small animal SPECT system. *World Molecular Imaging Congress. Dublin*.

26. Martin, E., Kennel, S., Richey, T., Stuckey, A., Williams, A., Osborne, D., Higuchi, K., Wall, J.S. (2012). Ex vivo identification and in vivo validation of a novel visceral amyloid imaging peptide. *World Molecular Imaging Congress. Dublin.*
27. Wall, J., Richey, T., Stuckey, A., Williams, A., Huang, Y., Martin, E., Osborne, D., Macy, S.D., Kennel, S. (2012). Arginine-rich peptide p5R provides enhanced binding to visceral amyloid deposits in vitro and in vivo. *World Molecular Imaging Congress. Dublin.*
28. Lee, S., Gregor, J., Osborne, D., IEEE, Member. (2012). Initial Validation of a Complete GATE Model of the Siemens Inveon Trimodal Imaging System. *IEEE Nuclear Science and Medical Imaging Conference Record. Anaheim.*