

## Journal Articles (12)

1. Wright A<sup>1</sup>, Ma R<sup>2</sup>, Hummer T, Francis M, Mehdiyoun N, **Dydak U**, Breier A. SU-F-SPS-07: Magnetic Resonance Spectroscopy Findings in Early-Phase Psychosis. *Med Phys*. 2016 Jun;43(6):3351.
2. Louis ED, Hernandez N, Dyke JP, Ma R, **Dydak U**. [Effect of Primidone on Dentate Nucleus  \$\gamma\$ -Aminobutyric Acid Concentration in Patients With Essential Tremor](#). *Clinical neuropharmacology*. 2016; 39(1):24-8. [PMC4764876](#)
3. Specht A, Weisskopf M, **Nie LH** (2016). XRF-measured Bone Lead (Pb) as a Biomarker for Pb Exposure and Toxicity Among Children Diagnosed with Pb Poisoning. *Biomarkers*. 21(4): 347-352
4. Byrne P, Mostafaei F, Liu Y, Koltick D, Zheng W, **Nie LH** (2016). The Study of In Vivo Quantification of Aluminum (Al) in Human Bone with a Compact DD Generator-based Neutron Activation Analysis (NAA) System. *Physiological Measurements*, 37(5): 649-660
5. Mostafaei F, **Nie LH**. Improvement in an *in vivo* K x-ray fluorescence (KXRF) technique for gadolinium measurements in human bone following gadolinium-based contrast-enhanced MRI. *Journal of Instrumentation*, E-pub Aug.2, 2016, <http://iopscience.iop.org/1748-0221/11/08/T08001>
6. Abel M, Koltick D, **Nie LH**. Associated particle neutron elemental imaging in vivo: a feasibility study, *Medical Physics*, 43(2016)5964-5972
7. Wang Y, Specht A, Liu Y, Finney L, Maxey E, Zheng W, Weisskopf M, **Nie LH**. Micro-distribution of Lead in Human Teeth Using Synchrotron  $\mu$ -XRF. *X-ray Spectrometry*, 46(2017)19-26
8. Hsieh M, Liu Y, Mostafaei F, Poulson J, **Nie LH**. Development of a DD Neutron Generator Based Boron Neutron Capture Therapy System – Feasibility and Methodology. *Medical Physics*, 44(2017)637-643
9. Liu Y, Mostafaei F, Sowers D, Hsieh M, Zheng W, **Nie LH**. Customized Compact Neutron Activation Analysis System to Quantify Manganese (Mn) in Bone In Vivo. *Physiological Measurement*, 38(2017)452-465
10. Verleker A<sup>2</sup>, Shaffer M<sup>2</sup>, Fang Q, Choi MR, Clare S, **Stantz KM**. Optical dosimetry probes to validate Monte Carlo and empirical-methods-based NIR dose planning in the brain. *Applied Optics* 55(34):9875-, 2016 (DOI: 10.1364/AO.55.009875)
11. Lee CW<sup>2</sup> and **Stantz KM**. Development of a mathematical model to estimate intra-tumor oxygen concentrations through multi-parametric imaging. *BioMedical Engineering Online* **15**:114-133, 2016. (DOI: 10.1186/s12938-016-0235-5)
12. Cao N<sup>2</sup>, Song SH, Maleki T, Shaffer M<sup>2</sup>, **Stantz KM**, Cao M, Kao C, Mendonca M, Ziaie B, Ko S-C. Radiosensitizing Pancreatic Cancer Xenografts by an Implantable Micro-Oxygen Generator, *Radiation Research* **185**(4):431-437, 2016.

## Conference Presentations / Abstracts (31)

1. Edmondson DA, Ma R, Yeh CL, Zauber SE, Snyder S, Ward E, **Dydak U**. Reversibility of increased thalamic GABA levels in welders with decreased Mn exposure. *28th*

*International Neurotoxicology Conference – Manganese2016, New York, NY, USA, Sept 25-28, 2016.*

2. Yeh CL, Ward E, Ma R, Snyder S, Schmidt-Wilcke T, **Dydkak U**. Whole-brain R1 mapping of Manganese in Welders - Visualization of Increased Mn Levels in the Brain. *28th International Neurotoxicology Conference – Manganese2016, New York, NY, USA, Sept 25-28, 2016.*
3. Cameron E, Dyke J, Yeh CL, **Dydkak U**. Manganese-induced MRI T1 hyperintensities confound standard segmentation procedures for volumetric analysis of subcortical gray matter. *28th International Neurotoxicology Conference – Manganese2016, New York, NY, USA, Sept 25-28, 2016.*
4. Ma R, Ward E, Yeh CL, Zauber SE, Long Z, Rosenthal F, Snyder S, **Dydkak U**. Thalamic GABA as early marker of manganese-induced neurotoxicity: Association with exposure levels, brain manganese deposition and rigidity. *28th International Neurotoxicology Conference – Manganese2016, New York, NY, USA, Sept 25-28, 2016.*
5. Ward E, Bowler RM, Edmondson D, Yeh CL, Ma R, Nour M, Snyder S, Rosenthal F, **Dydkak U**. Exposure to Mn and other prevalent metals in welding fume have significant effects on neuropsychological functions. *28th International Neurotoxicology Conference – Manganese2016, New York, NY, USA, Sept 25-28, 2016*
6. Ward EJ, Yeh CL, Ma R, Snyder S, Rosenthal F, **Dydkak U**. Occupational Exposure to Manganese and Iron from Welding Fume in a United States Cohort. **Oral Presentation** at *25th EPICOH, Barcelona, Spain, September 4- 8, 2016. (Best Student Poster Award, Honorable Mention)*
7. Yeh CL, Ward E, Ma R, Snyder S, Schmidt-Wilcke T, **Dydkak U**. Whole-brain R1 mapping of Manganese in Welders - Visualization of Increased Mn Levels in the Brain. *25th EPICOH, Barcelona, Spain, September 4- 8, 2016.*
8. Ma R, Bogner W, Andronesi OC, **Dydkak U**. Brain-Region Specific GABA+ Concentrations Obtained from 3D GABA MRSI: Cross-Validation to Single Voxel MEGA-PRESS. *ISMRM Workshop on MR Spectroscopy: From Current Best Practice to Latest Frontiers, Lake Constance, Germany, August 14-17, 2016.*
9. Wright A, Ma R, Hummer T, Francis M, Mehdiyoun N, **Dydkak U**, Breier A. Magnetic Resonance Spectroscopy Findings in Early-Phase Psychosis. *AAPM 58th Annual & Exhibition, Washington D.C., July 31- Aug 4, 2016.*
10. **Dydkak U**, Ma R, Hernandez N, Dyke JP, Louis E. The Effect of Primidone on Gamma-Aminobutyric Acid Concentration in the Dentate Nucleus in Patients with Essential Tremor. *ISMRM 24th Scientific Meeting & Exhibition, Singapore, May 07-13. Proc. Intl. Mag. Reson. Med. 24:4716.*
11. Ma R, Dharmadhikari S, Dyke JP, Hernandez N, Louis ED, **Dydkak U**. Comparison of Thalamic GABA and Glx Levels in Patients with Essential Tremor and Parkinson's Disease. *ISMRM 24th Scientific Meeting & Exhibition, Singapore, May 07-13. Proc. Intl. Mag. Reson. Med. 24:2462.*

12. Yeh CL, McGlothan JL, Guilarte TR, **Dydak U**. R1 Relaxation Mapping of Manganese Uptake and Wash-out in a Non-Human Primate Model of Chronic Mn Exposure. *ISMRM 24rd Scientific Meeting & Exhibition, Suntec City, Singapore, May9-May13 2016. Proc. Intl. Soc. Mag. Reson. Med. 24: 4456. Magna Cum Laude Merit Award*
13. Yeh CL, Perez-Torres CJ, **Dydak U**. Interaction of Manganese and Iron in R1 mapping in a Low Concentration Setting. *ISMRM 24rd Scientific Meeting & Exhibition, Suntec City, Singapore, May 9-13 2016. Proc. Intl. Soc. Mag. Reson. Med. 24: 2318.*
14. Oare C, Yeh CL, Cameron E, **Dydak U**. Grey Matter Changes and Associations to Motor Impairment in Parkinson's Disease. *Purdue University Undergraduate Research Symposium, West Lafayette, IN, April 12 2016.*
15. Wright A, Ma R, Hummer T, Francis M, Mehdiyoun N, **Dydak U**, Breier A. Magnetic Resonance Spectroscopy Findings in Early-Phase Psychosis. *Purdue University Undergraduate Research Symposium, West Lafayette, IN, April 12, 2016.*
16. Oare C, Yeh CL, Cameron E, **Dydak U**. Grey Matter Changes and Associations to Motor Impairment in Parkinson's Disease. *Indianapolis Chapter of the Society for Neuroscience Annual Conference, Indianapolis, IN, March 25, 2016.*
17. Azizi E, Yeh CL, Ward E, Snyder S, Zauber SE, **Dydak U**. Comparing brain iron content between Parkinson's disease patients and welders. *Indianapolis Chapter of the Society for Neuroscience Annual Conference, Indianapolis, IN, March 25, 2016.*
18. **Dydak, U**; Ma, R; Yeh, C-L; Cameron, E; Edmondson, DA., Zauber, SE; Snyder, S; Ward, E. Reversibility of Effects of Manganese Toxicity: A Longitudinal Neuroimaging study on Welders. *Society of Toxicology 55<sup>th</sup> Annual Meeting, New Orleans, Louisiana March 13-17, 2016. Toxicol Sci suppl. (150)1:2354*
19. Edmondson, DA; Yeh, C-L; Azizi, E; Ma, R; Ward, E; Snyder, S; Zauber, ES; **Dydak, U**. Parkinson's Disease versus Manganese Toxicity: A Neuroimaging Comparison. *Society of Toxicology 55<sup>th</sup> Annual Meeting, New Orleans, Louisiana March 13-17, 2016. Toxicol Sci suppl. (150)1:2355*
20. Ward E., Bowler R., Nour M., Snyder S, Rosenthal F, **Dydak U**. Exposure to Metal Mixtures in Welding Fume: Effects on Neuropsychological Functions. *Society of Toxicology 55<sup>th</sup> Annual Meeting, New Orleans, Louisiana March 13-17, 2016. Toxicol Sci suppl. 145(1):172.*
21. Liu Y, Mostafaei F, Rolle D, Zheng W, Wells E and **Nie LH\*** (2016). Bone manganese as biomarker for manganese exposure – an in vivo pilot study. SOT annual meeting, Mar.13-17. New Orleans, LA. Toxicologist 150(1): Abstract #1552.
22. Specht AJ, Lin Y, Weisskopf MG, Yan CH, Hu H, Xu J, **Nie LH\*** (2016). XRF-measured bone lead (Pb) as a biomarker for Pb exposure and toxicity among children diagnosed with Pb poisoning. SOT annual meeting, Mar.13-17. New Orleans, LA. Toxicologist 150(1): Abstract #1545.
23. Hsieh M, Liu Y, **Nie LH\*** (2016). Design of a beam shaping assembly of a compact DD-based BNCT system. AAPM annual meeting, Jul.31-Aug.4. Washington DC. Medical Physics 43:6, p3503-3504

24. Hsieh M, Liu Y, **Nie LH\*** (2016). A D-D based neutron generator system for boron neutron capture therapy: a feasibility study. 17<sup>th</sup> International Congress on Neutron Capture Therapy (ICNCT-17), Oct.2-7. Columbia, Missouri. Abstract book, page77
25. Rolle D, Liu Y, Mostafaei F, Zheng W, Zhou Y, **Nie LH**, Wells EW. (2016). Bone manganese (BnMn) as a biomarker of cumulative Mn exposure and indicator of neurological deficit: a pilot study. ISEE annual meeting Sep.1-4. Rome, Italy. Abstract #P2-287
26. Rolle D, Liu Y, Mostafaei F, Zhou Y, Zheng W, **Nie LH**, Wells EM (2016). Bone manganese (Mn) as a biomarker of occupational Mn exposure. MANGANESE Conference, Sep.25-28. NYC
27. Liu Y, Mostafaei F, Rolle D, Zheng W, Wells E, **Nie LH\*** (2016). Customized portable neutron activation analysis system to quantify manganese (Mn) in bone in vivo. 24<sup>th</sup> International Conference on the Application of Accelerators in Research and Industry (CARRI), Oct.30-Nov.4. Fort Worth, Texas. Abstract #285
28. Coyne M, Liu Y, Zhang X, **Nie LH\*** (2016). Compact DD generator-based in vivo neutron activation analysis (IVNAA) system to determine sodium and calcium concentrations in human bone. HPS annual meeting. Abstract book, page16
29. Holloway C<sup>2</sup>, Ai H, Dzemidzic M, Mendonca M, Nakshatri H, **Stantz KM\***. Influence of anti-angiogenic therapy on the prevalence of breast cancer stem cells, *Cancer Research* 76(S14):4227, 2016. (DOI: 10.1158/1538-7445.AM2016-4227)
30. Sick J<sup>2</sup>, Rancilio N, Fulkerson C, LaPetina P, Poulson J, Knapp D, **Stantz KM\***. Construction of An Ultrasound Guidance Platform for Image-Guided Radiotherapy with the Intent to Treat Transitional Cell Carcinoma, *Medical Physics* 43(6):3812, 2016, (DOI: 10.1118/1.4957832)
31. Burnett J<sup>1</sup>, Sick J<sup>2</sup>, Cao N<sup>2</sup>, Liu B<sup>2</sup>, Nakshatri H, Mendonca M, **Stantz KM\***. Validating Hemoglobin Saturation and Dissolved Oxygen in Tumors Using Photoacoustic Computed Tomographic Spectroscopic Imaging, *Medical Physics* 43(6):3864, 2016, (DOI: 10.1118/1.4958096)