

Table of Contents
Submissions for 2nd Surbeck Scholar Competition
April 4, 2008

- Albers, MJ, Bok, R, Chen, AP, Cunningham, CH, Zierhut, ML, Zhang, VY, Kohler, SJ, Tropp, J, Hurd, RE, Yen, Y-F, Nelson, SJ, Vigneron, DB, Kurhanewicz, J. *HYPERPOLARIZED ¹³C LACTATE, PYRUVATE, AND ALANINE – NONINVASIVE BIOMARKERS FOR PROSTATE CANCER DETECTION AND STAGING (A)*

- Albers, MJ, Butler, T, Keshari, K, Swanson, M, Kurhanewicz, J. *EVALUATION OF THE ERETIC METHOD AS AN IMPROVED QUANTITATIVE REFERENCE FOR ¹H HR-MAS SPECTROSCOPY OF PROSTATE TISSUE (B)*

- Blumenfeld, J, Studholme, C, Carballido-Gamio, J, Link, TM, Majumdar, S. *THREE-DIMENSIONAL IMAGE REGISTRATION OF MR PROXIMAL FEMUR IMAGES FOR THE ANALYSIS OF TRABECULAR BONE PARAMETERS*

- Carpenter, RD, Majumdar, S, Ma, B. *MAGNETIC RESONANCE IMAGING ANALYSIS OF 3D IN VIVO TIBIOFEMORAL KINEMATICS IN ACL RECONSTRUCTED KNEES*

- Hammond, KE, Lupo, JM, Xu, D, Metcalf, M, Kelley, DAC, Pelletier, D, Chang, SM, Mukherjee, P, Vigneron, DB, Nelson, SJ. *DEVELOPMENT OF A ROBUST METHOD FOR GENERATING 7.0 T MULTICHANNEL PHASE IMAGES OF THE BRAIN WITH APPLICATION TO NORMAL VOLUNTEERS AND PATIENTS WITH NEUROLOGICAL DISEASES*

- Hu, S, Lustig, M, Chen, AP, Crane, J, Kerr, A, Kelley, DAC, Hurd, R, Kurhanewicz, J, Nelson, SJ, Paly, JM, Viegneron, DB. *COMPRESSED SENSING FOR RESOLUTION ENHANCEMENT OF HYPERPOLARIZED ¹³C FLYBACK*

- Huber, MB, Carballido-Gamio, J, Bauer, JS, Baum, T, Eckstein, F, Lochmuller, EM, Majumdar, S, Link, TM. *AUTOMATED 3D TRABECULAR BONE MINERAL DENSITY ANALYSIS OF PROXIMAL FEMUR SPECIMENS IN MULTIDETECTOR COMPUTED TOMOGRAPHY DATASETS IN RELATION TO BIOMECHANICAL STRENGTH*

- Kazakia, GJ, Hyun, B, Burghardt, AJ, Krug, R, Newitt, DC, de Papp, AE, Link, TM, Majumdar, S. *IN VIVO DETERMINATION OF BONE STRUCTURE IN POSTMENOPAUSAL WOMEN: A COMPARISON OF HR-pQCT AND HIGH-FIELD MR IMAGING*

- Keshari, KR, Lotz, JC, Link, TM, Hu, S, Majumdar, S, Kurhanewicz, J. *LACTIC ACID AND PROTEOGLYCANS AS METABOLIC MARKERS FOR DISCOGENIC BACK PAIN*

- Khayal, I, McKnight, TR, McGue, C, Vandenberg, S, Lamborn, KR, Chang, SM, Cha, S, Nelson, SJ. *APPARENT DIFFUSION COEFFICIENT AND FRACTIONAL ANISOTROPY OF NEWLY DIAGNOSED GRADE H GLIOMAS (A)*

- Khayal, I, Nelson, SJ. *ADC HISTOGRAM DERIVED RGB COLOR-MAPS FOR CHARACTERIZING LOW GRADE GLIOMA SUBTYPES (B)*

- Larson, PEZ, Kerr, AB, Chen, AP, Lustig, MS, Zierhut, ML, Hu, S, Cunningham, CH, Pauly, JM, Kurhanewicz, J, Vigneron, DB. *MULTIBAND EXCITATION PULSES FOR HYPERPOLARIZED ¹³C DYNAMIC CHEMICAL SHIFT IMAGING*

- Li, Y, Chen, AP, Crane, JC, Chang, SM, Vigneron, DB, Nelson, SJ. *THREE-DIMENSIONAL J-RESOLVED H-1 MAGNETIC RESONANCE SPECTROSCOPIC IMAGING OF VOLUNTEERS AND PATIENTS WITH BRAIN TUMORS AT 3T*

Lupo, JM, Banerjee, S, Hammond, KE, Kelley, DAC, Xu, D, Chang, SM, Vigneron, DB, Majumdar, S, Nelson, SJ. *GRAPPA-BASED SUSCEPTIBILITY-WEIGHTED IMAGING OF NORMAL VOLUNTEERS AND PATIENTS WITH BRAIN TUMOR AT 7T*

Osorio, JA, Xu, D, Cunningham, CH, Chen, A, Kerr, AB, Pauly, JM, Vigneron, DB, Nelson, SJ. *DESIGN OF COSINE MODULATED VERY SELECTIVE SUPPRESSION PULSES FOR MAGNETIC RESONANCE SPECTROSCOPIC IMAGING AT 3T*

Park, I, Chen, AP, Zierhut, ML, Crane, JC, Ozturk-Isik, E, Cunningham, CH, Vigneron, DB, Nelson, SJ. *APPLICATION OF 3T LACTATE-EDITED 3D 1H MR SPECTROSCOPIC IMAGING WITH FLYBACK ECHO-PLANAR READOUT GRADIENT TO PATIENTS WITH GLIOMAS*

Saldanha, KJ, Piper, SL, Ainslie, KM, Desai, TA, Kim, HT, Majumdar, S. *MAGNETIC RESONANCE IMAGING OF IRON OXIDE LABELED STEM CELLS: APPLICATIONS TO TISSUE ENGINEERING BASED REGENERATION OF THE INTERVERTEBRAL DISC*

■ von Morze, C, Purcell, DD, Banerjee, S, Xu, D, Mukherjee, P, Kelley, DAC, Majumdar, S, Vigneron, DB. *HIGH RESOLUTION INTRACRANIAL MRA AT 7T USING AUTOCALIBRATING PARALLEL IMAGING: INITIAL EXPERIENCE IN VASCULAR DISEASE PATIENTS*

Wu, B, Wang, C, Banerjee, S, Qu, P, Kelley, DAC, Majumdar, S, Zhang, X. *MULTI-RECEPTION STRATEGY AND EXTENDED GRAPPA FOR IMPROVED PERFORMANCE IN PARALLEL IMAGING*

Zierhut, ML, Ozurk-Isik, E, Chen, AP, Vigneron, DB, Nelson, SJ, Nat, R. *1H SPECTROSCOPIC IMAGING OF HUMAN BRAIN AT 3T: COMPARISON OF FAST 3D-MRSI TECHNIQUES*

Zuo, J, Saadat, E, Lotz, JC, Rodriguez, A, Li, X, Link, TM, Majumdar, S. *ASSESSMENT OF INTERVERTEBRAL DISC DEGENERATION WITH MAGNETIC RESONANCE SINGLE VOXEL SPECTROSCOPY – A FEASIBILITY STUDY*

■ FIRST PLACE

■ SECOND PLACE

■ HONORABLE MENTION