BIOGRAPHICAL SKETCH

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NAME	POSITION TITLE
Friedman, Seth D.	Medical Physicist
eRA COMMONS USER NAME (credential, e.g., agency login) SETHFR	

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	MM/YY	FIELD OF STUDY
University of Virginia, Charlottesville, VA	BA	1993	Psychology w/Distinction
University of New Mexico, Albuquerque, NM	MS	1995	Behav. Neuroscience
University of New Mexico, Albuquerque, NM	PhD	1997	Behav. Neuroscience
University of Washington, Seattle, WA	Pos Doc	2000	Neuroimaging

A. Personal Statement

Dr. Friedman is currently the PI on an FSHD longitudinal imaging study and heads the analytic lab that will be performing centralized MRI processing. He has experience with data-coordination/multi-site funded trials, and most recently with a complicated treatment intervention in healthy older adults and those with mild-cognitive impairment (R01 AG030484). Dr. Friedman supervises and works closely with Dr. Poliachik/Shaw and Chris Budech, the clinical research associate II, who will facilitate ongoing funded research work in FSHD. This team will head the administrative and data-coordination efforts associated with imaging in Project 2.

B. Positions and Honors

Positions and Employment

2000-2006 Research Assistant Professor, Radiology, University of Washington
2006-2008 Research Associate Professor, Radiology, University of Washington
2008- Medical Physicist, Radiology, Seattle Children's Hospital

Honors

1993 Award for Research Excellence, University of Virginia Research Forum
1996 Graduate Student Teacher of the Year, University of New Mexico
1998 Benjamin Haught Award for Dissertation Research, University of New Mexico

C. Selected Peer-Reviewed Publications (selected from 64)

Most related to the present application:

1. Otto R, Ferguson MR, Marro K, Grinstead JW, Friedman SD. Limitations of using logarithmic transformation and linear fitting to estimate relaxation rates in iron-loaded liver. Pediatr Radiol. 2011 Oct;41(10):1259-65. Epub 2011 May 24. PubMed PMID: 21607600.
2. Friedman SD, Poliachik SL, Carter GT, Budech CB, Bird TD, Shaw DW. The magnetic resonance imaging spectrum of facioscapulohumeral muscular dystrophy. Muscle Nerve. 2012 Apr;45(4):500-6. doi:10.1002/mus.22342. PubMed PMID: 22431082.
3. Otto RK, Ferguson MR, Friedman SD. Cardiac MRI in muscular dystrophy: an overview and future directions. Phys Med Rehabil Clin N Am. 2012 Feb;23(1):123-32, xi-xii. Review. PubMed PMID: 22239879.
4. Poliachik SL, Friedman SD, Carter GT, Parnell SE, Shaw DW. Skeletal muscle edema in muscular dystrophy: clinical and diagnostic implications. Phys Med Rehabil Clin N Am. 2012 Feb;23(1):107-22, xi. Epub 2011 Dec 15. Review. PubMed PMID: 22239878.
5. Ferguson MR, Otto RK, Bender M, Kolokythas O, Friedman SD. Liver and heart relaxometry in ironloading: reproducibility of three methods. JMRI (in press 2012).

Other example publications:

1. Friedman SD, Castañeda E, Hodge GK. Long-term monoamine depletion, differential recovery, and subtle behavioral impairment following methamphetamine-induced neurotoxicity. Pharmacol Biochem Behav. 1998 Sep;61(1):35-44. PubMed PMID: 9715805.
2. Friedman SD, Stidley CA, Brooks WM, Hart BL, Sibbitt WL Jr. Brain injury and neurometabolic abnormalities in systemic lupus erythematosus. Radiology. 1998 Oct;209(1):79-84. PubMed PMID: 9769816.
3. Friedman SD, Brooks WM, Jung RE, Chiulli SJ, Sloan JH, Montoya BT, Hart BL,Yeo RA. Quantitative proton MRS predicts outcome after traumatic brain injury. Neurology. 1999 Apr 22;52(7):1384-91. PubMed PMID: 10227622.
4. Friedman SD, Jensen JE, Frederick BB, Artru AA, Renshaw PF, Dager SR. Brain changes to hypocapnia using rapidly interleaved phosphorus-proton magnetic resonance spectroscopy at 4 T. J Cereb Blood Flow Metab. 2007 Mar;27(3):646-53. Epub 2006 Aug 9. PubMed PMID: 16896347.
5. Friedman SD. Comment on "Magnetic resonance spectroscopy identifies neural progenitor cells in the live human brain". Science. 2008 Aug 1;321(5889):640; author reply 640. PubMed PMID: 18669845; PubMed Central PMCID: PMC2643334.
6. Friedman SD. Taking responsibility for scientific discourse. Science. 2008 Aug 22;321(5892):1039-40. PubMed PMID: 18719265; PubMed Central PMCID: PMC2649802.
7. Marro K, Otto R, Kolokythas O, Shimamura A, Sanders JE, McDonald GB, Friedman SD. A simulationbased comparison of two methods for determining relaxation rates from relaxometry images. Magn Reson Imaging. 2011 May;29(4):497-506. Epub 2011 Feb 18. PubMed PMID: 21333480; PubMed Central PMCID: PMC3078944.
8. Lee MJ, Hatton BA, Villavicencio EH, Khanna PC, Friedman SD, Ditzler S, Pullar B, Robison K, White KF, Tunkey C, LeBlanc M, Randolph-Habecker J, Knoblaugh SE, Hansen S, Richards A, Wainwright BJ, McGovern K, Olson JM. Hedgehog pathway inhibitor saridegib (IPI-926) increases lifespan in a mouse medulloblastoma model. Proc Natl Acad Sci U S A. 2012 May 15;109(20):7859-64. Epub 2012 May 1. PubMed PMID: 22550175; PubMed Central PMCID: PMC3356655.
9. Ishak GE, Poliakov AV, Poliachik SL, Saneto RP, Novotny EJ Jr, McDaniel S, Ojemann JG, Shaw DW, Friedman SD. Tract-Based Spatial Statistical Analysis of Diffusion Tensor Imaging in Pediatric Patients with Mitochondrial Disease: Widespread Reduction in Fractional Anisotropy of White Matter Tracts. AJNR Am J Neuroradiol. 2012 Apr 12. [Epub ahead of print] PubMed PMID: 22499843.
10. Friedman SD, Baker LD, Borson S, Jensen JE, Barsness SM, Craft S, Merriam GR, Otto R, Novotny E, Vitiello MV. Growth hormone-releasing hormone increases brain GABA levels in mild cognitive impairment and healthy aging. JAMA Neurology (in press 2012).

D. Research Support

Active

1 R01 AG030484-01A2 (Friedman PI) 12/01/2008 - 3/30/2014

GHRH: Cellular Integrity in Aging and Mild Cognitive Impairment

The overall objective of this project is to understand neurochemical changes in response to GHRH treated individuals with amnestic mild cognitive impairment (aMCI).

No Grant #: NW Friends of FSHD Research (Friedman PI) 1/01/2012-1/31/2014

Longitudinal Progression of Edema and Fatty Replacement of Lower Extremity Muscles in Facioscapulohumeral Muscular Dystrophy (FSHMD)

The goal of this study is to evaluate the longitudinal progression of STIR+ signal and fatty replacement in thigh and calf in FSHD subjects.

No Grant #: Seattle Children's TRIPP Award (Friedman/Miller Co-PIs) 8/01/2013-9/29/2013

Correlation of MRI findings with molecular changes in FSHD-affected individuals.

The goal of this study is to evaluate STIR positive changes in an expanded range of anatomical locations to molecular features (methylation, SMCHD1) that may underlie severity of disease expression.

Completed
No Grant Number: NW Friends of FSHD Research (Friedman/Shaw Co-PIs) 8/01/2008-8/1/2010
MR Evaluation of the Pattern of Involvement in Skeletal Muscle of Subjects with Facioscapulohumeral Muscular Dystrophy (FSHMD)
Study to evaluate quantitative features in calf musculature in FSHD using MRI