

## **Gerard Riedy, Ph.D., M.D.**

Director National Capital Neuroimaging Consortium  
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### A. Academic Experience

2007-present	Director, National Capital Neuroimaging Consortium
2003-present	Neuroradiology Attending, Walter Reed Hospital, Washington, DC
2004-present	Assistant Professor, Uniformed Services University, Bethesda, MD
2001- 2003	Neuroradiology Fellow, Johns Hopkins University, Baltimore, MD
1998- 2002	Radiology Resident, Bowman Gray-Wake Forest University, Winston-Salem, NC
1997- 1998	Med. Internship, Evanston Northwestern Hospital, Evanston, IL
1993- 1997	M.D., University of Colorado School of Health Sciences Center (UCHSC), Denver, CO
1991- 1993	Assistant Professor of Radiology, UCHSC, Denver, CO
1991- 1993	Assistant Professor of Pediatrics, UCHSC, Denver, CO
1990- 1991	Chief NMR Spectrochemist, Harbor/ UCLA, Los Angeles, CA
1989- 1991	Assistant Professor of Radiology, Harbor/ UCLA, Los Angeles, CA
1989- 1991	Staff Research Scientist, California Institute of Technology, Pasadena, CA
1987- 1989	Post-Doctoral Fellow, Massachusetts Institute of Technology, Cambridge, MA
1987- 1989	Staff Research Scientist, Boston College, Boston, MA
1984- 1987	Ph.D. in Biochemistry, Northern Illinois University, DeKalb, IL
1980- 1984	B.S. in Chemistry (Minors in Physics, Computer Science, and Mathematics), Carroll College, Waukesha, WI

### B. Boards and License

2004	Neuroradiology Certificate of Added Qualification (CAQ)
2002	Radiology Boarded (ABR)
2001- Present	Maryland State MD License
1999- Present	North Carolina State MD License

### C. Professional Experience

2000- 2002	Staff Physician Northern Hospital of Surry County, Mt Airy, NC
1993- Present	President G•NMR, Magnetic Resonance Consulting Company

#### D. Awards

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|---------|--------------------------|--|
| 1. 1999 | Clinical Research Award  | RSNA   |
| 2. 1996 | Outstanding Presentation | Western Regional Meeting of the American Federation of Clinical Research |
| 3. 1996 | Outstanding Research     | UCHSC Student Research Forum   |
| 4. 1995 | Outstanding Abstract     | Western Regional Meeting of the American Federation of Clinical Research |
| 5. 1994 | Research Award           | Society of Magnetic Resonance in Medicine                                |
| 6. 1994 | Outstanding Research     | UCHSC Student Research Forum   |

#### E. Publications

1. Warden, DL. Louis R French, LR. Shupenko, L. Riedy, G. et al., "Case Report of a Soldier with Primary Blast Brain Injury", submitted for publication.
2. Barker, PB. Bonekamp, D. Riedy, G. and Smith, M. "Quantitation of NAA in the brain by magnetic resonance spectroscopy." Adv Exp Med Biol., **576**, 183-97, (2006).
3. Duckworth, JL. Hawley, JS. Riedy, G. and Landau, ME. "MR Restricted Diffusion resolution correlates with clinical improvement and response to treatment in Herpes Simplex Encephalitis." Neurocritical Care, **3(3)**, 251, (2005).
4. Riedy, G. Golay, X. and Melhem, ER. "3-Dimensional High-Resolution Isotropic Contrast-Enhanced MR Angiography of the Carotid Artery using Random Elliptic Centric k-Space Filling and Sensitivity-Encoding (SENSE): Technique Optimization" Neuroradiology, **47(9)**, 668, (2005).
5. Riedy, G. and Melhem, ER. "Acute Infarct of the Corpus Callosum: Appearance on Diffusion-Weighted MR Imaging and MR Spectroscopy" Journal Magnetic Resonance Imaging, **18 (2)**, 255, (2003).
6. Riedy, G. "Rapid Proton Fat- Water Spectroscopy for the Characterization of Non-CNS Lesions *in vivo*" Clinical Imaging, **27(3)**, 145, (2003).
7. Riedy, G. and Adler, L. "Tc-99m Uptake in a Large Non-Toxic Goiter" Clinical Nuclear Medicine, **25 (11)**, 929 (2000).
8. Riedy, G., Gibbons, C., Vollmer, T., and Prenger, E. "Clinical Magnetic Resonance Spectroscopy of Multiple Sclerosis" Journal of Investigative Medicine, **44 (1)**, 115, (1996).
9. Riedy, G., Belov, M., and Froelich, J. "Non-invasive Functional Magnetic Resonance Imaging (fMRI) of the Primary Motor Cortex" Journal of Investigative Medicine, **43 (1)**, 140, (1995).

10. Riedy, G. and Chan, L. "Detection of Human Kidney Organic Osmolytes and their Response to Dehydration using *in vivo* Proton NMR Spectroscopy" Journal of Investigative Medicine, **43 (1)**, 121, (1995).
11. Zanconato, S., Riedy, G., and Cooper, D.M. "Calf Muscle Cross Sectional Area and Peak Oxygen Uptake in Children and Adults" American Journal of Physiology, **267 (3)**, 720, (1994).
12. Schlosser, P.M., Riedy, G., and Bailey, J.E. "Ethanol Production in Bakers' Yeast: Application of Experimental Perturbation Techniques for Model Development and Resultant Changes in Flux Control Analysis" Biotechnology Progress, **10 (2)**, 141, (1994).
13. Riedy, G. and Chan, L. "*In vivo* Magnetic Resonance Spectroscopy (MRS) of the Human Kidney" Clinical Research, **42 (1)**, 94, (1994).
14. Pendse, G.J., Riedy, G., and Bailey, J.E. "<sup>31</sup>P NMR Spectroscopy of Recombinant Chinese Hamster Ovary (CHO) Cells in a Packed Bed Reactor" Biotechnology Techniques, **5 (3)**, 193, (1991).
15. Yamagata, N.T., Miller, B.L., McBride, D., Riedy, G., and Chang, F. "*In-Vivo* Proton NMR Spectroscopy for Differentiating Intracranial Abscesses from Tumor in AIDS" Neurology, **41 (3)**, 316 (1991).
16. Zanconato, S., Riedy, G., Tabrisky, J., and Cooper, D. M. "Magnetic Resonance Imaging and Phosphorus-31 Spectroscopy of Leg Muscles in Children and Adults" Pediatric Research, **29 (4)**, 56, (1991).
17. Riedy, G. and Miller, B.L. "Evaluation of the Contribution of Phosphatidylcholine to the Choline Peak Observed with Proton *in vivo* Spectroscopy" Bulletin of Clinical Neurosciences, **55**, 107, (1990).
18. Miller, B.L., McBride, D., Riedy, G., Caron, M., Lipcamon, J., and O'Brien, D. "Changes in Brain Choline in Tumors with <sup>1</sup>H NMR Spectroscopy" Bulletin of Clinical Neurosciences, **55**, 115, (1990).
19. Eum, K.M., Riedy, G., Langley, K.H., and Roberts, M.F. "Reversible Temperature-Induced Fusion of Small Unilamellar Vesicles Formed from Saturated Long-Chain Lecithins and Diheptanoyl-Phosphatidylcholine" Biochemistry, **28**, 8206, (1989).
20. Riedy, G., Gabriel, N.E., and Roberts, M.F. "Short-Chain Lecithin/ Long-Chain Phospholipid Unilamellar Vesicles: *In vivo* and *in vivo* Stability Studies" Biophysical Journal, **53 (2)**, 498, (1988).

21. Riedy, G. "Phospholipase Action: A Study of Physical Interactions by Kinetics and Nuclear Magnetic Resonance Spectroscopy" Ph.D. Thesis, Northern Illinois University, (1987).
22. Riedy, G. and Snyder, W.R. "The Stereoselectivity of the *Clostridium perfringens* Phospholipase C: Hydrolysis of Thiophosphate Analogs of Phosphatidylcholine" Archives of Biochemistry, **258**, 504, (1987).
23. Antholine, W.E., Riedy, G., Hyde, J.S., Basoci, R., and Petering, D. "Electron Spin Resonance (ESR) Parameters for Cupric Bleomycin in the Mobilized State" Journal of Biomolecular Structure and Dynamics, **2(2)**, 469, (1984).

F. Presentations

1. American Society of Neuroradiology (ASNR) 2003, "Minimization of Frontal Lobe Susceptibility Artifacts in Single-Shot Echo-Planar Imaging at 3T" Gerard Riedy and Peter Barker.
2. ASNR 2003, "Quantitative Proton MR Spectroscopy of Untreated Human Brain Tumors: A Pilot Study" Gerard Riedy and Peter Barker.
3. ASNR 2002, "3-D High-resolution Isotropic Contrast-enhanced MRA of the Carotid Artery Using Random Elliptic Centric K-space Filling and Sensitivity-encoding (SENSE)" Gerard Riedy, Xavier Golay, and Elias R Melhem.
4. Western Regional Meeting of the American Federation of Clinical Research, 1997, "Non-Invasive Lateralization of the Brain Language Center with Functional Magnetic Resonance Imaging (fMRI)" Gerard Riedy and Erin Pringer.
5. Western Regional Meeting of the American Federation of Clinical Research, 1996, "Evaluation of Multiple Sclerosis Lesions with Magnetic Resonance Spectroscopy" Gerard Riedy, Micheal Belov, and Erin Pringer.
6. Western Regional Meeting of the American Federation of Clinical Research, 1995, "Magnetic Resonance Spectroscopy of the Kidney with Dehydration and Rehydration" Gerard Riedy and Larry Chan.
7. Western Regional Meeting of the American Federation of Clinical Research, 1995, "Functional Magnetic Resonance Imaging of the Motor Strip" Gerard Riedy and Jerry Froelich.
8. Society of Magnetic Resonance in Medicine, 1994, "Functional Magnetic Resonance Spectroscopy of the Human Kidney" Gerard Riedy and Larry Chan.

9. Western Regional Meeting of the American Federation of Clinical Research, 1994, "*In vivo* Clinical Magnetic Resonance Spectroscopy of the Human Kidney" Gerard Riedy and Larry Chan.
10. Biophysical Society Annual Meeting, 1989, "The Reversible Temperature Induced Fusion of Short-chain Long-chain Unilamellar Vesicles" Gerard Riedy and Mary Roberts.
11. Great Lakes American Chemical Society Regional Meeting, 1987, "The Stereoselectivity of *Clostridium perfringens* Phospholipase C" Gerard Riedy and William Snyder.

G. Abstracts and Posters

1. ISMRM 2002 workshop on diffusion MRI, Saint Malo, France. "Diffusion anisotropy changes in the proximity of tumors in comparison with normal brain: What do we learn from the numbers" Yen Yi-Fen Yen, Naresh Chepuri, Gerard Riedy, Hong Li, Jonhatan Burdette, and Dixon Moody.
2. RSNA 2001, "Single Voxel Proton Spectroscopy for the Characterization of Vertebral Body Lesions *in vivo*" Gerard Riedy and Leon Lenchik.
3. ISMRM 2001, "Rapid Proton Fat- Water Spectroscopy for the Characterization of Non-CNS Lesions *in vivo*" Gerard Riedy.
4. ISMRM 2001, "Diffusion Tensor Imaging of White Matter Changes Adjacent to Intracranial Tumors" Gerard Riedy, Naresh Chepuri, Hong Li, and Yen Yi Fen .
5. ISMRM 2001, "Diffusion Anisotropy in the Corpus Callosum" Naresh Chepuri, Yen Yi Fen, Gerard Riedy, Hong Li, and Dixon Moody.
6. 5th Annual BioThermoKinetics Workshop, September 1992, "Practical Considerations in Metabolic Analysis" Paul M. Schlosser, Tyler Holcomb, Gerard Riedy, and James E. Bailey.
7. Society of Pediatric Research, March 1991, "Magnetic Resonance Imaging and <sup>31</sup>P Spectroscopy of Leg Muscles in Children and Adults" Stefania Zanconato, Gerard Riedy, Joseph Tabrisky, and Dan M. Cooper.

8. American Academy of Neurology, April 1991, "*In vivo* Proton NMR Spectroscopy for Differentiating Intracranial Abscesses from Tumor in AIDS"  
Nelson T. Yamagata, Bruce L. Miller, Duncan McBride, and Gerard Riedy.
9. Society of Magnetic Resonance in Medicine, August 1990, "1D and 2D NMR and Chemical Analysis of Human Brain Surgical Tissue Extracts"  
Gerard Riedy and Bruce L. Miller.
10. Biophysical Society National Meeting, February 1988, "Interactions of SLUVs with Red Blood Cells and Serum Components"  
Gerard Riedy and Mary Roberts.

#### H. Invited Lectures

1. Armed Forces Institute of Pathology Annual Neuroradiology Course 2006, 2007, 2008
2. National Institutes of Health, March 2003, "Advanced MR Applications"
3. Rocky Mountain Imaging Society, April 1993, "Introduction to Clinical Magnetic Resonance Spectroscopy"
4. Metabolism and Nuclear Magnetic Resonance Workshop, April 1992, "Nuclear Magnetic Resonance Applications in Medical Research"
5. Colorado Radiology Grand Rounds, October 1991, "Magnetic Resonance Spectroscopy in the Clinical Environment"
6. Silent Vascular Disease, Dementia, and Spectroscopy Workshop, The French Foundation for Alzheimer Research, August 1990, "What Makes up the Choline Peak Seen with *in vivo* Spectroscopy?"

#### I. Grants

1. 2007, \$4.1 million, Congressional Directed Medical Research, "National Capital Consortium TBI Neuroimaging Core Project"
2. 1993, \$20k, General Electric Foundation, Co-PI, "Advanced Applications of Magnetic Resonance Techniques *in vivo*" Technical Support
3. 1992, \$5K, UCHSC Biotechnology Grant, PI, "Development of Liposomes for the Encapsulation and Delivery of Compounds *in vivo*"