

# Dennis R. Mosier, M.D., Ph.D.



## • Associate Professor of Neurology

### Clinical Service Area

Neurology

### Specialty

Muscular Dystrophy  
General Neurology

### Board Certification

American Board of Psychiatry and Neurology, Neurology

### Clinic Appointments

713-798-4227

### Consult

713-798-4227

### Medical School

M.D./Ph.D., University of Florida College of Medicine, Gainesville, Fla.

### Internship

Internal Medicine, Baylor College of Medicine, Houston, Texas

### Residency

Neurology, Baylor College of Medicine, Houston, Texas

### Clinic Location

Baylor Neurology  
Smith Tower  
6550 Fannin, Suite 1801  
Houston, Texas 77030

### Clinical Interests

Neuromuscular disorders such as amyotrophic lateral sclerosis (Lou Gehrig's disease), myasthenia gravis, and muscle diseases, neurodegenerative diseases

### Contact Information

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## Journal Publications

1. Oshima M, Deitiker PR, Glenn Smith R, Mosier D, Zouhair Atassi M. T-cell recognition of acetylcholine receptor provides a reliable means for monitoring autoimmunity to acetylcholine receptor in antibody-negative myasthenia gravis patients. *Autoimmunity*. 2012;45(2):153-60. [[View journal article](#)]
2. Deitiker PR, Oshima M, Smith RG, Mosier D, Atassi MZ. Association with HLA DQ of early onset myasthenia gravis in Southeast Texas region of the United States. *Int J Immunogenet*. 2011;38(1):55-62. [[View journal article](#)]
3. Orengo JP, Chambon P, Metzger D, Mosier DR, Snipes GJ, Cooper TA. Expanded CTG repeats within the DMPK 3' UTR causes severe skeletal muscle wasting in an inducible mouse model for myotonic dystrophy. *Proc Natl Acad Sci U S A*. 2008;105(7):2646-51. [[View journal article](#)]
4. Kawai M, Gundogdu B, Kwan J, Mosier DR. Inflammatory cells invading non-necrotic muscle fibers in myotonic dystrophy type 2. *J Clin Neuromuscular Dis*. 2007;8:212-6. [[View journal article](#)]
5. Deitiker PR, Oshima M, Smith RG, Mosier DR, Atassi MZ. Subtle differences in HLA DQ haplotype-associated presentation of AChR alpha-chain peptides may suffice to mediate myasthenia gravis. *Autoimmunity*. 2006;39(4):277-88. [[View journal article](#)]
6. Jha S, Xu K, Maruta T, Oshima M, Mosier DR, Atassi MZ, et al. Myasthenia gravis induced in mice by immunization with the recombinant extracellular domain of rat muscle-specific kinase (MuSK). *J Neuroimmunol*. 2006;175(1-2):107-17. [[View journal article](#)]
7. Oshima M, Maruta T, Ohtani M, Deitiker PR, Mosier DR, Atassi MZ. Vaccination with a MHC class II peptide in Alum and inactive pertussis strongly ameliorates clinical MG in C57BL/6 mice. *J Neuroimmunol*. 2006;171(1-2):8-16. [[View journal article](#)]
8. Oshima M, Deitiker PR, Mosier DR, Smith RG, Atassi MZ. Responses in vitro of peripheral blood lymphocytes from patients with myasthenia gravis to stimulation with human acetylcholine receptor alpha-chain peptides: analysis in relation to age, thymic abnormality, and ethnicity. *Hum Immunol*. 2005;66(1):32-42. [[View journal article](#)]
9. Oshima M, Ohtani M, Deitiker PR, Smith RG, Mosier DR, Atassi MZ. Suppression by mAbs against DQB1 peptides of in vitro proliferation of AChR-specific T cells from myasthenia gravis patients. *Autoimmunity*. 2005;38(2):161-9. [[View journal article](#)]
10. Wang P, Yang G, Mosier DR, Chang P, Zaidi T, Gong YD, et al. Defective neuromuscular synapses in mice lacking amyloid precursor protein (APP) and APP-Like protein 2. *J Neurosci*. 2005;25(5):1219-25. [[View journal article](#)]
11. Quattrocchi CC, Huang C, Niu S, Sheldon M, Benhayon D, Cartwright J, et al. Retraction. *Science*. 2004;303(5666):1974. [[View journal article](#)]
12. Quattrocchi CC, Huang C, Niu S, Sheldon M, Benhayon D, Cartwright J, et al. Reelin promotes peripheral synapse elimination and maturation. *Science*. 2003;301(5633):649-53. [[View journal article](#)]
13. Mohamed HA, Mosier DR, Zou LL, Siklos L, Alexianu ME, Engelhardt JI, et al. Immunoglobulin Fc gamma receptor promotes immunoglobulin uptake, immunoglobulin-mediated calcium increase, and neurotransmitter release in motor neurons. *J Neurosci Res*. 2002;69(1):110-6. [[View journal article](#)]
14. Simpson EP, Mosier D, Appel SH. Mechanisms of disease pathogenesis in amyotrophic lateral sclerosis. A central role for calcium. *Adv Neurol*. 2002;88:1-19. [[View journal article](#)]
15. Appel SH, Beers D, Siklos L, Engelhardt JI, Mosier DR. Calcium: the Darth Vader of ALS. *Amyotroph Lateral Scler Other Motor Neuron Disord*. 2001;2 Suppl 1:S47-54. [[View journal article](#)]
16. Beers DR, Ho BK, Siklos L, Alexianu ME, Mosier DR, Mohamed AH, et al. Parvalbumin overexpression alters immune-mediated increases in intracellular calcium, and delays disease onset in a transgenic model of familial amyotrophic lateral sclerosis. *J Neurochem*. 2001;79(3):499-509. [[View journal article](#)]
17. Gooch CL, Mosier DR. Stimulated single fiber electromyography in the mouse: techniques and normative data. *Muscle Nerve*. 2001;24(7):941-5. [[View journal article](#)]
18. Mosier DR, Siklos L, Appel SH. Resistance of extraocular motoneuron terminals to effects of amyotrophic lateral sclerosis sera. *Neurology*. 2000;54(1):252-5. [[View journal article](#)]
19. Le W, Conneely OM, Zou L, He Y, Saucedo-Cardenas O, Jankovic J, et al. Selective agenesis of mesencephalic dopaminergic neurons in Nurr1-deficient mice. *Exp Neurol*. 1999;159(2):451-8.

[\[View journal article\]](#)

20. Colom LV, Alexianu ME, Mosier DR, Smith RG, Appel SH. Amyotrophic lateral sclerosis immunoglobulins increase intracellular calcium in a motoneuron cell line. *Exp Neurol.* 1997;146(2):354-60. [\[View journal article\]](#)
21. Smith RG, Siklos L, Alexianu ME, Engelhardt JJ, Mosier DR, Colom L, et al. Autoimmunity and ALS. *Neurology.* 1996;47(4 Suppl 2):S40-5; discussion S45-6. [\[View journal article\]](#)
22. Mosier DR, Baldelli P, Delbono O, Smith RG, Alexianu ME, Appel SH, et al. Amyotrophic lateral sclerosis immunoglobulins increase Ca<sup>2+</sup> currents in a motoneuron cell line. *Ann Neurol.* 1995;37(1):102-9. [\[View journal article\]](#)
23. Appel SH, Smith RG, Alexianu M, Engelhardt J, Mosier D, Colom L, et al. Neurodegenerative disease: autoimmunity involving calcium channels. *Ann N Y Acad Sci.* 1994;747:183-94. [\[View journal article\]](#)
24. Mosier DR, Zengel JE. Evoked transmitter release at the frog neuromuscular junction in the presence of very low extracellular Ca<sup>2+</sup>. *Neurosci Lett.* 1994;174(1):1-4. [\[View journal article\]](#)
25. Zengel JE, Sosa MA, Poage RE, Mosier DR. Role of intracellular Ca<sup>2+</sup> in stimulation-induced increases in transmitter release at the frog neuromuscular junction. *J Gen Physiol.* 1994;104(2):337-55. [\[View journal article\]](#)
26. Zengel JE, Lee DT, Sosa MA, Mosier DR. Effects of calcium channel blockers on stimulation-induced changes in transmitter release at the frog neuromuscular junction. *Synapse.* 1993;15(4):251-62. [\[View journal article\]](#)

### Poster and Platform Presentations

1. Shanina E, Mosier D, Smith RG. Motor neuropathy in Fascioscapulohumeral Dystrophy (FSHD). *Ann Neurol.* 2009;66 Suppl 1:S23.
- Mosier D, Smith R. Searching for unicorns: The neurologist as diagnostician for rare disorders. *Neurology.* 2009;72(11 Suppl 3):A209.
  - Nord K, Mosier D. Myasthenia mimics. *J Clin Neuromuscular Disease.* 2009;10:156.