

**CURRICULUM VITAE**  
**THOMAS EDWARD RAGOLE**

**Contact Information:**

University of Colorado School of Medicine  
Department of Neurology  
12401 E. 17<sup>th</sup> Ave. Mail Stop 950  
Aurora, CO 80045

**Professional Experience:**

November 2020-present	Assistant Professor of Neurology. Neurohospitalist & Neuromuscular Divisions. University of Colorado.
July 2019-October 2020	Assistant Professor of Neurology. Division of Neuromuscular Medicine. Oregon Health & Science University.

**Education:**

August 2006- December 2009	B.A. with distinction. University of Colorado, Boulder. Biochemistry. •Phi Beta Kappa
August 2010- May 2014	M.D. University of Colorado School of Medicine. •Alpha Omega Alpha

**Training:**

June 2014- June 2015	Intern in Medicine, University of California, San Francisco
July 2015- June 2018	Resident in Neurology, University of California San Francisco. Chief Resident for Education Conferences
July 2018- June 2019	Fellow in Neuromuscular Medicine, BWH/MGH/Boston Children's, Harvard Medical School.

**Clinical Service:**

July 2019-October 2020	•Full time clinician and clinical educator in the OHSU ALS and Neuromuscular Diseases Center with a focus on myasthenia gravis, autoimmune neuromuscular disease and motor neuron diseases. Four weeks yearly on inpatient general neurology and consult Service.
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**Licensure & Board Certification:**

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2020-present	Colorado Medical Board Medical License DR.0064958 Renewal date 04/30/2021
2020-present	Wyoming Board of Medicine Medical License: 13166A Renewal date 06/30/2021
2019-present	Oregon Medical Board Medical License: MD192817 Renewal date December 31, 2021
2015-2019	Medical Board of California Physician & Surgeon. License A139769 Renewal date October 31, 2019 ( <i>inactive</i> )
2018-2020	Massachusetts Board of Registration in Medicine Medical License: 274561 Renewal date October 23, 2020 ( <i>inactive</i> )
2018-present	Board Certification in Neurology, American Board of Psychiatry & Neurology. 61740

### **Professional Society Membership:**

- American Academy of Neurology
- American Association of Neuromuscular & Electrodiagnostic Medicine

### **Honors & Awards:**

University of Colorado School of Medicine:

2013	Alpha Omega Alpha
2012	Bruce Wallace Award for Phase I & II “Outstanding performance by a student”
2012	Harlan I. Firminger Award for Excellence in Pathology
2012	Robert H. Felix Award for Performance in Psychiatry
2011	University of Colorado School of Medicine UPI Merit Scholarship
2011	University of Colorado School of Medicine Citation for Academic Excellence
2008	Medical Scholars Program, University of Colorado School of Medicine •Early admission to the School of Medicine and mentoring program.

University of Colorado, Boulder:

2008	Phi Beta Kappa
2008/2009	The Best Should Teach Silver Award, Graduate Teacher Program, Graduate School, University of Colorado

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2006-2009 Norlin Scholars Program, University of Colorado-Boulder  
2006-2008 Dean's Scholarship, University of Colorado, Boulder  
2006 Presidential Freedom Scholarship  
2006 Zecchi Memorial Scholarship

**Research Experience:**

2019-2020 OHSU Neuromuscular Division: Actively involved in all aspects of the clinical research program in the OHSU Neuromuscular division. I have specific interests in clinical trials in myasthenia gravis and quality improvement in inpatient general neurology. I am also involved in education research regarding clinical reasoning in neurology education and how to most effectively teach to residents/fellows. Exploration of the prevalence and factors associated with unnecessary and costly medical treatments in neurology. Evaluation of the adoption of evidence based medical practices in neurology. See list of active trials below.

2012-2014 CU Department of Neurology. Olga Klepitskaya, MD.  
•Deep Brain Stimulation as disease-modifying treatment in Parkinson's Disease. Meta-analysis of disease progression in DBS patients compared with standard medical therapy.

2011-2014 CU Department of Psychiatry, Donald Rojas, PhD.  
•Attention and auditory processing in Schizophrenia. Novel magnetoencephalographic research into cerebral representation of auditory information during attention tasks in schizophrenia.  
•Psychiatry Scholars Program, Research Track.

2006-2011 Department of Psychology, University of Colorado, Boulder.  
Steven F. Maier, PhD.  
•Neurobiology of stress and anxiety. Major focus on limbic system serotonergic neural networks in producing fear and anxiety response and the effects of these changes on learning and social behavior.

**Grants and Contracts:**

PRIOR/OHSU (12 total):

1. Title: Safety, Tolerability, and Efficacy of Zilucoplan in Subjects With Generalized Myasthenia Gravis (RAISE).  
Sponsor: Ra Pharmaceuticals  
Role: Principal Investigator (Site PI)
2. Title: A Safety and Biomarker Study of ALZT-OP1a in Subjects With Mild-Moderate ALS Disease.  
Sponsor: AZ Therapies

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Role: Principle Investigator (Site PI)

3. Title: A Study to Test Efficacy and Safety of Roazanoloxizumab in Adult Patients with Generalized Myasthenia Gravis.  
Sponsor: UCB Pharmaceuticals  
Role: Principal Investigator (Site PI)
4. Title: A Phase 2 Randomized, Double-Blind, Placebo-Controlled Study of ACE-083 in Patients with Facioscapulohumeral Muscular Dystrophy  
Sponsor: Acceleron Pharma Inc.  
PI: Karam (Site PI)  
Role: Sub-Investigator
5. Title: A Phase 2 Randomized, Double-Blind, Placebo-Controlled Study of ACE-083 in Patients with Charcot-Marie-Tooth Disease Types 1 and X  
Sponsor: Acceleron Pharma Inc.  
PI: Karam (Site PI)  
Role: Sub-Investigator
6. Title: An Open-Label Extension Study to Evaluate the Long-Term Effects of ACE-083 in Patients with Facioscapulohumeral Muscular Dystrophy (FSHD) Previously Enrolled in Study A083-02 and in Patients with Charcot-Marie Tooth (CMT) Disease Types 1 and X Previously Enrolled in Study A083-03  
Sponsor: Acceleron Pharma Inc.  
PI: Karam (Site PI)  
Role: Sub-Investigator
7. Title: A phase 3 randomized, multicenter, multinational, double-blinded study comparing the efficacy and safety of repeated biweekly infusions of neoGAA (GZ402666) and alglucosidase alfa in treatment-naïve patients with late onset Pompe disease  
Sponsor: Genzyme Corporation  
PI: Karam (Site-PI)  
Role: Sub-Investigator
8. Title: A Randomized, Double-Blind, Placebo-Controlled, Multicenter Phase 3 Trial to Evaluate the Efficacy, Safety and Tolerability of ARGX113 in Patients with Myasthenia Gravis Having Generalized Muscle Weakness (ADAPT)  
Sponsor: argenx BVBA  
PI: Karam (Site-PI)  
Role: Sub-Investigator
9. Title: A Long-Term, Single-Arm, Open-Label, Multicenter, Phase 3 Follow-on Trial of ARGX-113-1704 to Evaluate the Safety and Tolerability of ARGX-113 in Patients with Myasthenia Gravis having Generalized Muscle Weakness (ADAPT+)

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Sponsor: argenx BVBA  
PI: Karam (Site-PI)  
Role: Sub-Investigator

10. Title: HELIOS-A: A Phase 3 Global, Randomized, Open-label Study to Evaluate the Efficacy and Safety of ALN-TTRSC02 in Patients with Hereditary Transthyretin Amyloidosis (hATTR Amyloidosis)

Sponsor: Alnylam Pharmaceuticals, Inc.  
PI: Karam (Site PI)  
Role: Sub-Investigator

11. Title: A Phase 1, open-label, dose escalation study of intravenous PRX004 in subjects with amyloid transthyretin (ATTR) amyloidosis

Sponsor: Prothena Biosciences Inc  
PI: Karam (Site PI)  
Role: Sub-Investigator

12. Title: A multi-center, low interventional study with a retrospective component in participants with late-onset Pompe disease

Sponsor: Spark Therapeutics Inc.  
PI: Karam (site-PI)  
Role: Sub-Investigator

**Medical Education Activities/Presentations:**

**Education Activities**

- 2019-2020 OHSU Core member of the Neurology clerkship clinical education team: Work with medical students in 3-4 clinics weekly teaching clinical care and the neurologic examination. Deliver monthly lecture on clinical reasoning and the approach to weakness. See formal teaching portfolio for more information.
- 2018 Volunteer evaluator for HMS Neurology clerkship beside exam
- 2017-2018 Chief Resident for Education/Conferences. UCSF Department of Neurology
- 2017-2018 UCSF Graduate Medical Education Committee.  
•Elected resident representative to the University-wide committee on Graduate Medical Education.

**Invited Lectures or Conference Presentations:**

**International and National**

- 2018 “Siblings with CIDP?” Inherited Neuropathies Consortium Virtual Grand Rounds. December 2018.

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Regional and Local

- 2020 “Myasthenia Gravis in the 21<sup>st</sup> Century: What’s the evidence?” OHSU Neurology Conference. February 27, 2020
- 2018 “Spinal Mischief: 1887 to 2017” Clinical/Pathological Conference for UCSF Neurology Department Grand Rounds. October 2017.

**Presentations**

- 2019 “Neuromuscular disorders for the Internist” OHSU Internal Medicine Noon Conference. December 2019
- 2018 “The Record is Obscured by Artifact” San Francisco General Morbidity & Mortality conference. February 2018
- 2017 Small group leader for Brain Movement & Behavior Course: Taught and facilitated case discussion for eight preclinical medical students throughout their neuroscience curriculum.
- 2017 “Spinal Mischief: 1887 to 2017” Clinical/Pathological Conference for UCSF Neurology Department Grand Rounds. October 2017.
- 2017 “The Altered Mental Status Consult” Neurology Boot Camp for UCSF PGY-2s. August 2017.
- 2017 “An Approach to Weakness” Neurology Boot Camp for UCSF PGY-2s. July 2017
- 2016 “A new and nagging headache: A case of GCA and its treatment.” Live patient presentation for UCSF Neurology Department Grand Rounds. November 2016.
- 2016 “A case-based approach to myelopathy.” A case presentation and review of the diagnosis and management of myelopathy given at the weekly San Francisco VA Neurology Department Rounds. July 2016
- 2016 “Open it up or pop it open: 10-year results from CREST.” Neurovascular Conference journal club presentation. March 2016
- 2015 “SAMUKeppra: Steps forward from a negative trial?” Monthly Neurohospitalist Conference journal club presentation. December 2015
- 2015 “Sleep and the parasomnias.” Didactic lecture presented during the weekly San Francisco VA Neurology Department rounds. October 2015
- 2015 “She doesn’t smile the same: A case of ‘spurious palsy’” A case presentation and review of the history of and the diagnosis and management of myasthenia gravis given at the weekly San Francisco VA Neurology Department rounds. July 2015.

**Invited Workshops:**

- 2010 Informatics for Bio-Inspired Design: Reverse Engineering of the Human Brain. May 23-26, Dubrovnik, Croatia.
- Joint US/European workshop sponsored by the National Science Foundation, US Air Force, and the European Science Foundation.
  - One of 40 American/European neuroscience researchers invited to take part in a four-day workshop to create guidelines for funding novel brain research and promoting transatlantic partnerships.

**Prior Grant, Scholarship & Fellowship Support:**

2011-2014	Research Track, University of Colorado School of Medicine
2010	Summer Education Training Program, CU Department of Psychiatry
2009	University of Colorado Norlin Enrichment Grant
2008/2009	Biological Sciences Initiative Travel Grant
2008	Irene & Eric Simon Brain Research Foundation Fellowship
2007-2009	Howard Hughes Medical Institute Bioscience Research Fellowships
2007	University of Colorado Summer Undergraduate Research Fellowship
2006-2007	University of Colorado Undergraduate Research Apprentice Program

**Volunteer and University Service:**

2017-2018	UCSF Neurology Quality Improvement Project Lead. <ul style="list-style-type: none"><li>•One of three resident leaders of inpatient QI project to increase the use of Physician's Order for Life Sustaining Treatment (POLST) for patients with DNR orders or pursuing palliative or hospice care.</li></ul>
2012	Colorado HealthStory. <ul style="list-style-type: none"><li>•Participated in project to raise awareness statewide about delivering healthcare in rural settings and the experience of CU School of Medicine students working in rural Colorado.</li></ul>
2011-2012	Humanities Club. <ul style="list-style-type: none"><li>•Monthly literature, film, and art discussion surrounding topics both inside and outside of medicine.</li></ul>
2010	Warren Village Clinic. <ul style="list-style-type: none"><li>•Provided well/sick care and vaccinations to child residents at Warren Village, a transitional housing program in Denver.</li></ul>
2010	Volunteer Teaching Assistant for <i>Perspectives in Health and Medicine</i> seminar class taught by Penelope Bennett, CU Boulder.
2009	Chair, Undergraduate Student Funding Committee, Behavioral Neuroscience Laboratory.
2008-2009	Lead Teacher for Special Undergraduate Enrichment Programs, Graduate Teacher Program: Graduate School, University of Colorado, Boulder.

**Language Proficiency:**

Fluent in English and Spanish

**Publications:**

1. Christianson, J. P., **Ragole, T.**, Amat, J., Greenwood, B.N., Strong, P.V., Fleshner, M., Paul, E.D., Watkins, L.R., & Maier, S. F. (2010) 5-hydroxytryptamine 2C receptors in the basolateral amygdala are involved in the expression of anxiety after uncontrollable traumatic stress. *Biological Psychiatry* 67: 339-45
2. Christianson, J.P., Jennings, J.H., **Ragole, T.**, Flyer J.G., Benison, A.M., Barth, D.S., Watkins, L.R., Maier, S.F. (2011). Safety signals mitigate the consequences of uncontrollable stress via a circuit involving the sensory insular cortex and bed nucleus of the stria terminalis. *Biological Psychiatry* 70: 458-64
3. **Ragole T**, Slason E, Teale P, Reite M, Rojas DC (2012). Effects of attention on tonotopy in schizophrenia. *Journal of Investigative Medicine*; 60(1): 161.
4. Vogt B, Chahin N, Wiszniewski W, **Ragole T**, Karam C. (2020) Screening for genetic mutations in pateints with neuropathy without definite etiology is useful. *J Neurology*. Sep;267(9):2648-2654
5. Moshe-Lilie O, Chahin N, Visser A, **Ragole T**, Dimitrova D, Karam C. (2020) Nusinersen in adult SMA patients. *Neurology*. Jul 28;95(4):e413-e416
6. Karam C, Moshe-Lilie O, Chahin N, **Ragole T**, Medvedova E, Silbermann R. (2020). Diagnosis of paraproteinemic neuropathy: room for improvement. *J. Neurol Sci*. Aug 15;415:116902
7. Karam C, **Ragole T**, Moshe-Lilie O, Chahin N. (2020). Unwarranted, long term, alglucosidase alfa enzyme replacement therapy in two non-Pompe disease patients. *Clin Neurol Neurosurg*. 2020 Sep;196:106048
7. **Ragole, T.**, Ganesh, V., Sadjadi R., Schmahmann J. The expanding spectrum MME mutation in Neurologic disease. (in preparation).
8. **Ragole, T.**, Lorance, D., Dubey, D., Guidon, A. Successful use of lacosamide in the treatment of refractory Isaac's syndrome. (in preparation).

**Abstracts & Posters:**

1. **Ragole, T**, Amat J, Paul ED, Watkins LR, Maier SF. (2008) Activation of the ventral medial prefrontal cortex by picrotoxin prevents dorsal raphé activation in response to uncontrollable stress. HHMI Bioscience Poster Session, University of Colorado.
2. **Ragole, T**, Christianson, JP, Amat, J, Paul, ED, Watkins, LR, & Maier, SF (2008)



Uncontrollable stress reduces social exploration via sensitization of the dorsal raphe nucleus. *Proc Soc. Neurosci.*

3. **Ragole, T**, Christianson, JP, Strong, PV, Watkins LR, Maier SF. (2009) Anxiety related behavior is modulated by serotonin 2C receptor activity in the basolateral amygdala. HHMI Bioscience Poster Session, University of Colorado.
4. **Ragole, T**, Christianson, JP, Strong, PV, Greenwood, BN, Amat, J, Fleshner, MR, Watkins, LR, & Maier, SF. (2009) Stress-induced anxiety involves serotonin release in the basolateral amygdala and the 5-HT<sub>2C</sub> receptor. *Proc Soc. Neurosci.*
5. **Ragole, T**, Tregellas, JR, Hunter, SK, Ross RG (2010) Brain structure, white matter & functional differences in neonates at increased risk for schizophrenia. 2010 Conte Center Retreat, University of Colorado School of Medicine.
6. **Ragole, T**, Christianson, JP, Flyer, JN, Watkins, LR, Maier, SF (2010) Bed nucleus of the stria terminalis is required for uncontrollable stress induced anxiety. *Proc Soc. Neurosci*
7. **Ragole, T**, Slason, E, Teale, P, Reite, M, Rojas, DC (2012) Effects of attention on tonotopy in schizophrenia. *Western Student Medical Research Forum (WSMRF) Annual Meeting*, Carmel, CA, January 2012.
8. **Ragole, T**, Michas-Martin, A, Klepitskaya, O. (2013) Review of published outcomes of subthalamic nucleus Deep Brain Stimulation (DBS) in Parkinson's disease supports hypothesis of disease-modifying effect of DBS. *International Congress of Parkinson's Disease and Movement Disorders*. Sydney, Australia, June 20, 2013.
9. **Ragole, T.**, Bhatia, N. (2018). Successful treatment of racemose neurocysticercosis after single course anti-helminthic treatment. *UCSF Fishman Poster Session*. San Francisco, CA
10. Nguyen, I, **Ragole, T**, Kim, A. (2018) Rates and predictors of stroke vs stroke mimics among inpatient code stroke activations. *UCSF Fishman Poster Session*. San Francisco, CA
11. Tanner, J., Conell-Prince, J, **Ragole, T**, Shah, M, Douglas, V. (2018) POLST: Quality improvement initiative to enhance advance care planning and transitions in care. *UCSF Fishman Poster Session*. San Francisco, CA