ANDREW B. WOLF, MD

CONTACT INFORMATION

 12631 E. 17th Avenue
 Phone: (303) 724-4328

 Mail Stop B185
 Fax: (303) 724-0985

Aurora, CO 80045 andrew.wolf@cuanschutz.edu

ACADEMIC APPOINTMENTS

Assistant Professor, Neuroimmunology Section

Associate Program Director, Neuroimmunology Fellowship

Faculty, Rocky Mountain Multiple Sclerosis Center

Faculty, Neuroinfectious Diseases Group

7/2023-Present
7/2023-Present

Department of Neurology, University of Colorado School of Medicine, Aurora, CO

EDUCATION

Bachelor of Science (Physiology & Behavior) 5/2010 Arizona State University, Tempe, AZ

Master of Science (Neuroscience) 4/2016
Doctor of Medicine (Clinical Medicine) 5/2018

University of Colorado School of Medicine, Aurora, CO

CLINICAL TRAINING

Internal Medicine Internship 6/2018-6/2019

Department of Medicine, University of Colorado School of Medicine, Aurora, CO

Neurology Residency 7/2019-6/2022 Chief Residency 7/2021-6/2022 Neuroimmunology Fellowship 7/2022-6/2023

Department of Neurology, University of Colorado School of Medicine, Aurora, CO

MEDICAL LICENSURE

Colorado Medical Board, Physician Training License, #0007057 4/2018-2/2022 Colorado Medical Board, Physician License, #0068220 2/2022-Present

BOARD CERTIFICATION

Neurology, American Board of Psychiatry and Neurology, Certificate 64702 9/2022-Present

CLINICAL PRIVILEGES

Denver Health Medical Center, Denver, CO	7/2022-Present
University of Colorado Hospital, Aurora, CO	7/2022-Present
DAWN Clinic, Aurora, CO	7/2023-Present

- 1.) Valla J*, Yaari R*, **Wolf AB**, Kusne Y, Beach TG, Roher A, Corneveaux JJ, Huentelman MJ, Caselli RJ, Reiman EM (2010). Reduced posterior cingulate mitochondrial activity in expired young adult carriers of the *APOE* ε4 allele, the major late-onset Alzheimer's susceptibility gene. J Alzheimers Dis, 22: 307-313. DOI 10.3233/JAD-2010-100129. *Contributed equally
- 2.) **Wolf AB**, Braden BB, Bimonte-Nelson H, Kusne Y, Young N, Engler-Chiurazzi E, Garcia AN, Walker DG, Moses GSD, Tran H, LaFerla FM, Lue L, Emerson Lombardo N, Valla J (2012). Broad-based nutritional supplementation in 3xTG mice corrects mitochondrial function and indicates sex-specificity in response to Alzheimer's intervention. J Alzheimers Dis, 24: 445-460. DOI 10.3233/JAD-2012-120478.
- 3.) **Wolf AB**, Caselli RJ, Reiman EM, Valla J (2013). *APOE* & neuroenergetics: an emerging paradigm in Alzheimer's disease. Neurobiol Aging, 34: 1007-1017. DOI 10.1016/j.neurobiolaging.2012.10.011.
- 4.) Hardesty DA, **Wolf AB**, Brachman DG, McBride HL, Youssef EF, Nakaji P, Porter RW, Smith KA, Spetzler RF, Sanai N (2013). The impact of adjuvant stereotactic radiosurgery on atypical meningioma recurrence following aggressive microsurgical resection. J Neurosurg, 119: 475-481. DOI 10.3171/2012.12.JNS12414.
- 5.) **Wolf AB**, Valla J, Bu G, Kim J, LaDu MJ, Reiman EM, Caselli RJ (2013). Apolipoprotein E as a β-amyloid independent factor in Alzheimer's disease. Alzheimers Res Ther, 5: 38. DOI 10.1186/alzrt204.
- 6.) Snyder LA, **Wolf AB**, Oppenlander ME, Bina R, Wilson JR, Ashby L, Brachman DG, Coons SW, Spetzler RF, Sanai N (2014). The impact of extent of resection on malignant transformation of pure oligodendrogliomas. J Neurosurg, 120: 309-314. DOI 10.3171/2013.10.JNS13368.
- 7.) Oppenlander ME, **Wolf AB**, Snyder LA, Bina R, Wilson JR, Coons SW, Nakaji P, Porter RW, Smith KA, Spetzler RF, Sanai N (2014). An extent of resection threshold for recurrent glioblastoma and its risk for neurological morbidity. J Neurosurg, 120: 846-853. DOI 10.3171/2013.12.JNS13184.
- 8.) **Wolf AB**, Lintz MJ, Costabile JD, Thompson JA, Stubblefield EA, Felsen G (2015). An integrative role for the superior colliculus in selecting targets for movements. J Neurophysiol,114: 2118-2131. DOI 10.1152/jn.00262.2015.
- 9.) Perkins M, **Wolf AB**, Chavira B, Shonebarger D, Meckel JP, Leung L, Ballina L, Ly S, Jones TB, Vallejo J, Jentarra G, Valla J (2016). Altered energy metabolism pathways in the posterior cingulate in young adult apolipoprotein E ε4 Carriers. J Alzheimers Dis, 53: 95-106. DOI 10.3233/JAD-151205.
- 10.) Kusne Y*, **Wolf AB***, Townley K, Conway M, Peyman GA (2017). Visual system manifestations of Alzheimer's disease. Acta Ophthalmol, 95: 668-676. DOI 10.1111/aos.13319. *Contributed equally

- 11.) **Wolf AB** & Felsen G (2019). How public health policy can be informed by neuroscience. Behav Public Policy, 3: 37-46. DOI 10.1017/bpp.2017.9.
- 12.) **Wolf AB**, Zhovtis Ryerson L, Pandey K, Vollmer T, Corboy JR, Alvarez E (2019). Rituximab-induced serum sickness in multiple sclerosis patients. Mult Scler Relat Disord, 36: 101402. DOI 10.1016/j.msard.2019.101402.
- 13.) **Wolf AB** & Alvarez E (2021). COVID-19 vaccination in patients with multiple sclerosis on disease-modifying therapy. Neurol Clin Pract, 11: 358-361. DOI 10.1212/CPJ.0000000000001088.
- 14.) Shiao JC*, **Wolf AB***, Rabinovitch RA, Smith C, Kleinschmidt-Demasters BK, Ney DE (2022). Long-term control of primary cerebral ALH amyloidoma with focal radiation therapy. Adv Radiat Oncol, 100831. DOI 10.1016/j.adro.2021.100831. *Contributed equally
- 15.) Vollmer BL*, **Wolf AB***, Silau S, Corboy JR, Alvarez E (2022). Evolution of disease modifying therapy benefits and risks: an argument for de-escalation as a treatment paradigm for patients with multiple sclerosis. Front Neurol, 799138. DOI 10.3389/fneur.2021.799138. *Contributed equally
- 16.) **Wolf AB** & Alvarez E (2022). Ublituximab: A novel anti-CD20 therapy for multiple sclerosis. touchREVIEWS in Neurology. 18:117-121. DOI 10.17925/USN.2022.18.2.117.
- 17.) Shah AA*, **Wolf AB***, Declusin A, Coleman K, Kammeyer R, Khan B, Corboy JR (2022). Challenging cases in neuroimmunology. Semin Neurol. 42: 695-707. DOI 10.1055/s-0042-1760100. *Contributed equally
- 18.) **Wolf AB**, Money KM, Chandnani A, Daley CL, Griffith DE, Chauhan L, Coffman N, Piquet AL, Tyler KL, Zimmer S, Montague BT, Mann S, Pastula DM (2023). *Mycobacterium abscessus* meningitis associated with stem cell treatment during medical tourism. Emerg Infect Dis. 29: 23-0317. DOI 10.3201/2908.230317.
- 19.) **Wolf AB**, Palace J, Bennett JL (2023). Emerging Principles for Treating Myelin Oligodendrocyte Glycoprotein Antibody-associated Disease (MOGAD). Curr Treat Options Neuro. 25: 437-453. DOI 10.1007/s11940-023-00776-1.
- 20.) **Wolf AB**, Alvarez E, Corboy JR (2024). Comparative efficacy of disease-modifying treatments for relapsing multiple sclerosis variations in real-world experience. JAMA Neurol. 81: 87, DOI 10.1001/jamaneurol.2023.4395.

CHAPTERS

1.) **Wolf AB** & Shah AA. Clinical trials in multiple sclerosis. MedLink Neurology. Updated 12/2023.

ABSTRACTS & POSTERS

1.) <u>Wolf AB</u>, Kusne Y, Valla J, Yaari R, Beach TG, Roher A, Corneveaux JJ, Huentelman MJ, Caselli RJ, Reiman EM. Reduced posterior cingulate mitochondrial activity in expired young

- adult carriers of the common late-onset Alzheimer's disease susceptibility gene. Arizona Alzheimer's Consortium Annual Conference, Glendale, AZ, 5/2009.
- 2.) <u>Valla J</u>, Braden BB, Lind J, Young N, Engler L, Garcia A, Bowman B, **Wolf AB**, Page K, Kusne Y, Emerson Lombardo N, Bimonte-Nelson H. Comprehensive polynutrient dietary supplementation improves cognition in 3xTG mice. Society for Neuroscience Annual Meeting, Chicago, IL, 10/2009.
- 3.) **Wolf AB**, Kusne Y, Valla J, Yaari R, Beach TG, Roher A, Corneveaux JJ, Huentelman MJ, Caselli RJ, Reiman EM. Reduced posterior cingulate mitochondrial activity in expired young adults with the major Alzheimer's disease susceptibility gene. Society for Neuroscience Annual Meeting, Chicago, IL, 10/2009.
- 4.) <u>Emerson Lombardo N</u>, Valla J, Braden BB, Lind J, Bimonte-Nelson H, Engler L, Garcia A, Young N, Auerbach SH, Bowman B, **Wolf AB**, Page K, Kusne Y, Volicer L. Nutritional supplement combination therapy improves cognition in 3xTG AD mice and will be tested in cognitively normal adults. Alzheimer's Disease International Annual Conference, Thessaloniki, Greece, 3/2010.
- 5.) **Wolf AB**, Valla J, Braden BB, Young N, Engler L, Garcia A, Bowman B, Kusne Y, Hatch M, Emerson Lombardo N, Bimonte-Nelson H. Polynutrient dietary supplementation corrects brain mitochondrial biomarkers and improves cognition in the 3xTG mouse model of Alzheimer's disease. Arizona Alzheimer's Consortium Annual Conference, Glendale, AZ, 5/2010.
- 6.) <u>Valla J</u>, **Wolf AB**, Braden BB, Young N, Engler L, Garcia A, Bowman B, Kusne Y, Hatch M, Emerson Lombardo N, Bimonte-Nelson H. Polynutrient dietary supplementation corrects brain mitochondrial biomarkers and improves cognition in the 3xTG mouse model of Alzheimer's disease. International Academy on Nutrition and Aging Annual Meeting, Santa Ana Pueblo, NM, 7/2010.
- 7.) <u>Snyder LA</u>, **Wolf AB**, Porter RW, Smith KA, Spetzler RF, Sanai N. The impact of the extent of resection on malignant transformation of pure oligodendrogliomas. Arizona Neurosurgical Society Annual Meeting, Marana, AZ, 10/2011.
- 8.) Oppenlander ME, Wolf AB, Porter RW, Nakaji P, Smith KA, Spetzler RF, Sanai N. An extent of resection threshold for recurrent glioblastomas. Society for Neuro-Oncology Annual Scientific Meeting, Garden Grove, CA, 11/2011.
- 9.) **Wolf AB**, Konkowski N, Henderson LB, Allred R, Valla J. Foundations of Alzheimer's bioenergetic vulnerability in APOE ε4 carriers. International Conference on Brain Energy Metabolism: Bioenergetics of Neurological Disease and Aging, Pacific Grove, CA, 4/2012.
- 10.) <u>Snyder LA</u>, **Wolf AB**, Porter RW, Smith KA, Spetzler RF, Sanai N. The impact of the extent of resection on malignant transformation of pure oligodendrogliomas. American Association of Neurological Surgeons Annual Scientific Meeting, Miami, FL, 4/2012.
- 11.) Oppenlander ME, Wolf AB, Porter RW, Nakaji P, Smith KA, Spetzler RF, Sanai N. An extent of resection threshold for recurrent glioblastomas. American Association of Neurological Surgeons Annual Scientific Meeting, Miami, FL, 4/2012.

- 12.) **Wolf AB**, Konkowski N, Henderson L, Allred R, Valla J. Foundations of Alzheimer's bioenergetic vulnerability in APOE ε4 carriers. Arizona Alzheimer's Consortium Annual Conference, Phoenix, AZ, 5/2012.
- 13.) <u>Henderson LB</u>, Allred R, Wolf AB, Alex M, Konkowski N, Valla J. Foundations of Alzheimer's bioenergetic vulnerability in APOE ε4 carriers. American Osteopathic Association Research Conference, San Diego, CA, 10/2012.
- 14.) <u>Wolf AB</u>, Felsen G. The function of GABAergic neurons in the superior colliculus during decision making. University of Colorado Neuroscience Program Annual Research Conference, Estes Park, CO, 11/2015.
- 15.) Essig J, **Wolf AB**, Felsen G. Functional role of inhibitory superior colliculus neurons in target selection. Society for Neuroscience Annual Meeting, San Diego, CA, 11/2016.
- 16.) <u>Wolf AB</u>, Pratt RW, Crooks K, Borko T, Parra Gonzales J, Vollmer TL, Frazer-Abel A, Alvarez EA. Humoral response to mRNA-based COVID-19 vaccination in patients with multiple sclerosis on anti-CD20 disease modifying therapies. University of Colorado Department of Neurology Annual Research Retreat, Virtual, 6/2021.
- 17.) <u>Wolf AB</u>, Pratt RW, Crooks K, Borko T, Parra Gonzales J, Vollmer TL, Frazer-Abel A, Alvarez EA. Humoral response to mRNA-based COVID-19 vaccination in patients with multiple sclerosis on anti-CD20 disease modifying therapies. American Neurological Association, Virtual, 10/2021.
- 18.) <u>Wolf AB</u>, Pratt RW, Crooks K, Borko T, Parra Gonzales J, Vollmer TL, Frazer-Abel A, Alvarez EA. Humoral response to mRNA-based COVID-19 vaccination in patients with multiple sclerosis on anti-CD20 disease modifying therapies. ECTRIMS, Virtual, 10/2021.

PROFESSIONAL CERTIFICATIONS

Advanced Cardiac Life Support (ACLS), initial 5/2018
Basic Life Support (BLS), renewed 4/2022
CITI Program, renewed 2/2022
DEA Controlled Substance Registration Certificate, initial 6/2022
Expanded Disability Status Scale (EDSS), Level C, initial 4/2023
NIH Stroke Scale, renewed 5/2021

PROFESSIONAL MEMBERSHIPS

American Academy of Neurology American Neurological Association Colorado Society of Clinical Neurology Siegel Rare Neuroimmune Association

JOURNAL REVIEW ACTIVITY

Acta Ophthalmologica Brain and Behavior Cureus JAMA Neurology

Journal of Clinical Pharmacy and Therapeutics

Neuroimmunology Reports

Neurology

Neurology Clinical Practice

Neurology Education

Neurology Neuroimmunology & Neuroinflammation

Neurology and Therapy

GRANT SUPPORT

Project: Integration of multidomain digital biomarkers to detect progression in multiple sclerosis

Role: Co-PI (w/ Enrique Alvarez, MD/PhD)

Funding Source: Rocky Mountain Multiple Sclerosis Center

Dates: 7/2023-7/2024 Total Costs: \$9907

Project: Integration of multidomain digital and blood biomarkers to detect worsening in multiple

sclerosis Role: Pl

Funding Source: Mowry Family Dates: 12/1/2023-2/28/2025

Total Costs: \$61496

CLINICAL TRIALS

NCT03972306. A study to investigate the pharmacokinetics, safety, and tolerability of subcutaneous ocrelizumab administration in participants with multiple sclerosis.

Role: Sub-investigator, 2022-2023

NCT04544449. A study to evaluate the efficacy and safety of fenebrutinib compared with ocrelizumab in adult participants with primary progressive multiple sclerosis (FENtrepid)

Role: Sub-investigator, 2022-2023

TEACHING ACTIVITY

University of Colorado Medical Students:

IDPT 5022 Nervous System

Neuropathology Lab – Neuroimmunology, 3/7/2022 (170 students, 4 hours)

Neuropathology Lab – Neuroimmunology, 3/6/2023 (170 students, 2 hours)

IDPT 7041 Neurologic Care

Problem Based Learning – Acute Stroke, 9/3/2020 (12 students, 2 hours)

IDPT 8037 Advanced Neuroscience

Neuropathology Lab – Neuroimmunology, 11/16/2022 (170 students, 4 hours)

Neuroimmunology Cases, 12/15/2022 (170 students, 1 hour)

Neuroinflammation Cases, 10/25/2023 (170 students, 1 hour) (w/ Kelli Money, MD/PhD)

Team Based Learning – Neuroinflammation (170 students, 2 hours) (w/ Kelli Money, MD/PhD)

IDPT 7006 Foothills Basecamp Transition to Clerkships Oral Presentations, 9/6/2023 (4 students, 2 hours)

IDPT 8060 Alpine basecamp Transition to Advanced Clerkships
Summarizing Evidence in Clinical Presentations, 1/31/2024 (8 students, 2 hours)

University of Colorado Neurology Residents:

Didactic Lectures, ~24 residents, 1 hour

Clinical Anatomy Cases – Spinal Cord, 12/2/2020

Neuroimmunology Board Review, 1/6/2021

Neuroradiology Cases – Neuroimmunology & Neuro-ophthalmology, 1/20/2021

Neuroradiology Cases – Neuroinfectious Disease, 6/16/2021 (w/ Madeline Garza, MD)

Neurological Emergencies in Pregnancy, 8/25/2021 (w/ Sharon Poisson, MD)

Burnout in Neurology: Definitions, Quantification, and Intervention, 9/1/2021

Epilepsy Neuroimaging, 10/27/2021

Epilepsy Clinical Cases, 10/27/2021 (w/ Dave Jeon, MD)

Pediatric Neuroimmunology, 1/12/2022

Neuroimmunology Board Review, 1/19/2022

Neuroradiology Cases – Neurodegenerative Disease, 5/11/2022

Neuro-oncology Board Review, 5/18/2022

Neurological Emergencies in Pregnancy, 8/24/2022 (w/ Sharon Poisson, MD)

Pediatric Neuroimmunology, 11/30/2022

Neurological Emergencies in Pregnancy and the Postpartum Period, 8/23/2023

Neuroradiology: MS, NMOSD, and MOGAD, 11/15/2023 (w/ Justin Honce, MD)

Team-Based Learning, ~24 residents, 2 hours

Neuroimmunology, 12/5/2023

Written Materials

Neurology Survival Guide – Neuroimmunology, 6/2021 (w/ Anthony Declusin, MD) Practical Overview of Multiple Sclerosis Diagnosis & Management, revised 11/2023

CLINICAL SUPERVISION

University of Colorado Medical Students:

University of Colorado Hospital neuroimmunology clinic, ~2 half-days monthly, 7/2023-present DOCS Mentor for MSI Hanna Vanderpool, 2023-2024

<u>University of Colorado Neurology Residents:</u>

Denver Health neuroimmunology clinic, ~6 half-days yearly, 7/2022-present University of Colorado Hospital continuity clinics, ~1 half-day monthly, 7/2023-present University of Colorado Hospital neuroimmunology clinic, ~2 half-days monthly, 7/2023-present DAWN Clinic, ~1 evening monthly, 7/2023-present

University of Colorado Neuroimmunology Fellows:

University of Colorado Hospital neuroimmunology clinic, ~4 half-days monthly, 7/2023-present

INTRAMURAL PRESENTATIONS

University of Colorado Neurology Grand Rounds:

Clinical Case Review, 4/12/2023 (w/ Anna Shah, MD & Jennifer Simpson, MD) BTK Inhibitors: The Next Wave in MS Treatment, 4/19/2023 (w/ Anthony Declusin, MD)

University of Colorado Neurology Professor Rounds:

"A 61-year-old man with headache" – Isolated infratentorial PRES, 9/27/2019

"A 55-year-old woman with hemiparesis" – Primary cerebral amyloidoma, 11/22/2019

"An 85-year-old man with dyspnea" – Pembrolizumab-associated myasthenia gravis, 7/31/2020

University of Colorado Neuroimmunology Division Conference:

BTK Inhibitors in Multiple Sclerosis, 3/4/2021

Remyelination Therapies: What's Next?, 7/21/2022

Leukodystrophies: Multiple Sclerosis Mimicry and Misdiagnosis, 1/19/2023

Alternative Dosing Strategies for anti-CD20 Disease-modifying Therapies, 3/16/2023

Radiologic Differentiation of Tumefactive Demyelination, 5/18/2023

University of Colorado Neurology Research Retreat:

Arguments for Disease-modifying Therapy De-escalation in Multiple Sclerosis, 6/1/2022

EXTRAMURAL PRESENTATIONS

Acute Management of NMOSD, Horizon Therapeutics Symposium, Denver, CO, 11/2/2023

INTRAMURAL SERVICE

University of Colorado Neurology Residency Program

Chief Resident. 7/2021-6/2022

- Organized weekly didactics sessions (4 hours / week) with subspecialty faculty
- Organized weekly Professor Rounds (departmental case conference) with residents
- Mentored residents on case presentations and other scholarly/research activities
- Led program overview presentations and small group sessions with residency applicants
- Participation on University of Colorado Hospital GME Quality Improvement Committee

Resident Selection Committee, 2022-2023, 2023-2024

Faculty Director, Didactics Neuroimmunology Block, 7/2023-present

Faculty Director, Journal Club, 7/2023-Present

University of Colorado MD Program:

MD Admissions Interviewer, 2023-2024

BA/BS-MD Admissions Interviewer, 2023-2024

EXTRAMURAL SERVICE

ACTRIMS fellowship webinar series, organizing committee, 2022-2023 American Academy of Neurology Annual Meeting, session monitor, Boston, MA, 4/2023

CLINICAL OUTREACH

AHEC health screenings, National Western Stock Show, Denver, CO, volunteer, 1/2016 DAWN Clinic, Aurora, CO, volunteer physician, 5/2022-present (1 evening monthly)

EDUCATIONAL OUTREACH

Brain Awareness Week, Denver Museum of Nature & Science, Denver, CO, volunteer, 3/2016 Alzheimer's disease education session, Rio Grande Inn, La Jara, CO, volunteer, 7/2016 Helmet Heads, Aurora, CO, volunteer, 5/2017

National Multiple Sclerosis Society ECHO MS Mountain Hub, virtual case presentation, 1/2023 Conversations in MS, Rocky Mountain Multiple Sclerosis Center, Pueblo, CO, 10/2023

HONORS, AWARDS, & RECOGNITION

Summa cum laude, Arizona State University, 5/2010
Recognition of excellence on medical student evaluations, University of Colorado SOM, 8/2021
Extra Mile Award, University of Colorado Neurology Residency Program, 6/2022
Resident Research Award, University of Colorado Neurology Residency Program, 6/2022
Recognition for high-performance on clinician listening metric, UCHealth, 7/2023

FINANCIAL DISCLOSURES

I have received funding for research from Genentech, the Rocky Mountain Multiple Sclerosis Center, and the Mowry Family. I have received honoraria from MedLink Neurology and Horizon Therapeutics.

Updated 2/2024