**Curriculum Vitae**

**MARIUS BIRLEA, MD, FAHS**

**PERSONAL INFORMATION**

Work address: **University of Colorado School of Medicine**

**Anschutz Medical Campus**

**12469 East 17th Place**

**Aurora, CO 80045**

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**CURRENT ACADEMIC POSITION**

2013-Present Associate Professor of Neurology Clinical Practice

Director – Headache/Pain Program, Neurology Department

University of Colorado SOM

2015-Present Fellowship Director – Headache Medicine, University of Colorado SOM

2020-Present Wellness co-champion, Neurology Department, Univ. of Colorado SOM

**EDUCATION**

1988-1994 MD Iuliu Hatieganu, University of Medicine and Pharmacy

Cluj Napoca, Romania

1995-1996 Internship Internal Medicine, Iuliu Hatieganu, University of Medicine and Pharmacy

Cluj Napoca, Romania

1996-2000 Residency Neurology, Iuliu Hatieganu, University of Medicine and Pharmacy

Cluj Napoca, Romania

2007-2008 Internship Internal Medicine, Metropolitan Hospital, New York Medical College,

New York, NY

2008-2011 Residency Neurology, University of Colorado School of Medicine

Aurora, CO

2011-2013 Fellowship NeuroVirology research, University of Colorado School of Medicine

Aurora, CO

**CERTIFICATIONS**

1995 Romanian College of Physicians

Practicing physician

2000 Romanian Neurological Board

Neurology Specialist

2002 Romanian Board of Ultrasonography Cerebral Vascular Doppler Ultrasonography

2006 Educational Commission for Foreign Medical Graduates (ECFMG)

Certified (USMLE Step1 - 99/247; USMLE Step2 CK - 99/250)

2011 American Board of Psychiatry and Neurology (ABPN)

Neurology

2014 United Council for Neurological Subspecialties (UCNS)

Headache Medicine

**LICENSURE**

2011-Present Colorado

**HONORS/AWARDS**

1991-1993 Dean’s scholarship (Medical school)

Iuliu Hatieganu University, Cluj Napoca, Romania

2008 Training Award - Excellence in professionalism during residency

Internal Medicine, Metropolitan Hospital, New York, NY

2011 Resident outstanding research award

Neurology Department, University of Colorado SOM

2012 Travel award - ANA annual meeting, Boston, MA

**PROFESSIONAL MEMBERSHIPS**

International Headache Society

American Headache Society

American Neurological Association

American Academy of Neurology

Center for NeuroScience, University of Colorado Denver

Colorado Alphaherpesviruses Latency Society

**RESEARCH PROJECTS/GRANTS**

2015-2017 Cefaly device for Chronic Migraine Prevention, Pilot study

Principal investigator; completed

2016-present MOTS (Medication Overuse Treatment Strategy) multicenter PCORI trial

Local PI; completed enrollment

2016-2019 ENFORCE multicenter trial: CGRP antibodies for prevention of

cluster headache (Episodic and Chronic cluster headache separate protocols, Long

term safety study).

Local PI; stopped

2016- 2017 The role of alphaherpesviruses infection in head and face pain

University of Colorado Neurology intradepartmental grant

Principal investigator

2018-2020: American Registry for Migraine Research

Local PI: stopped

2021 Use of a digital health solution for migraine management

Co-investigator

**QUALITY IMPROVEMENT PROJECTS**

2011 Improved timeliness of Neurology residents’ response to call from consults from the Emergency Department - poster presented at 2012 ANA annual meeting

2013-2014 Improved patients’ access to treatment of severe and prolonged migraine attacks in the Infusion Clinic at the University of Colorado Hospital

2017-2018 Practice transformation program. Leader for the Headache/Pain section

## ADMINISTRATIVE RESPONSIBILITIES AND COMMITTEE MEMBERSHIPS

2013-Present Member - Clinical affairs committee, Neurology Department, University of Colorado

2013-Present Section Chief - Headache/Pain Clinic, Neurology Dept., University of Colorado SOM

2017-2018 Member of task force for UCH specialties Practice Transformation pilot program

## PREVIOUS PROFESSIONAL POSITIONS AND APPOINTMENTS

2000-2005 Neurohospitalist - Zalau County Hospital, Romania

2000-2006 Neurologist outpatient practice - Outpatient Gallenus Policlinic, Zalau, Romania

2011-2013 Instructor of Neurology, General Neurology Division

2015-2016 Associate Director, Outpatient Services, Neurology Department, University of Colorado SOM

**OTHER EDUCATIONAL ACTIVITIES**

2010-2011 Resident Director for weekly Neurology Residency Core Curriculum Didactics

University of Colorado SOM

2011-2017 Facilitator of learning neurological exam for 2nd year medical students

University of Colorado SOM

2013-present Director of Headache didactics module for Neurology residents

University of Colorado SOM

**PRESENTATIONS**

5/2003 Migraine management

Glaxo-Smithkline symposium

Zalau, Romania

8/2003 Migraine management

Glaxo-Smithkline symposium

Baia Mare, Romania

4/2008 Heart Failure, review

Internal Medicine residency program didactics session

Metropolitan Hospital, New York, NY

9/2010-3/2011 2nd International Classification of Headache Disorders (ICHD 2)

Weekly didactics for Neurology residents and rotating students at University of Colorado SOM

Aurora, CO

5/2011 Alphaherpesviruses and Head Pain

Neurology Grand Rounds, University of Colorado SOM

Aurora, CO

6/2011 Subclinical VZV reactivation in HIV patients

Neurology Department Research Retreat, University of Colorado SOM

Aurora, CO

6/2011 Improved Timeliness of Neurology Consults in the Emergency Department

Neurology Grand Rounds, Quality Improvement Project, University of Colorado SOM

Aurora, CO

8/2011 Headache and dizziness

Weekly didactics for UCD SOM Neurology residents and rotating students

Aurora, CO

1/2013 Insight into molecular pain, trigeminal system activation and alphaherpesviruses

Neurology Grand Rounds, University of Colorado SOM

Aurora, CO

5/2013 Chronic active VZV trigeminal ganglionitis

3rd Annual Colorado Alphaherpesviruses Latency Society Meeting

Vail, CO

7/2013; 7/2014; Headache in the Emergency Department

7/2015 Emergency module didactics for Neurology residents and rotating students at

University of Colorado SOM

Aurora, Colorado, USA

8/2013 Headache Program at the University of Colorado - An Introduction

Neurology Grand Rounds, University of Colorado SOM

Aurora, CO

9/2013 – present Headache overview

Neurology teaching module for 2nd year medical students, University of Colorado

SOM, Headache

Aurora, CO

11/2013 Translational research opportunities in headache

Annual meeting of Colorado Neuroscience Program

Estes Park, CO

12/2013 Headache – Diagnosis and Management

Pain Fellowship Program teaching session, University of Colorado SOM

Aurora, CO

2/2014 Intravenous Treatment of Migraine

Nursing staff - Outpatient Infusion Center, University of Colorado Hospital

Aurora, CO

2/2014 Improving Access of Migraine Patients to Intravenous Treatment in the

Outpatient Infusion Clinic – Quality Improvement Project

Neurology Grand Rounds, University of Colorado SOM

Aurora, CO

3/2014 Headache- Overview on Diagnosis and Management

Teaching session for PM&R residents at University of Colorado SOM

Aurora, CO

2013-present Leading annual Headache didactics

Teaching session for Neurology residents at University of Colorado SOM

Aurora, CO

6/2014 Evaluation of the Patient with Headache, 1st session

Family Medicine Review-Workshop

Estes Park, CO

10/2014/ 12/2015 Patient with Headache-Evaluation and Treatment

Pain symposium for PM&R residents at University of Colorado SOM

Aurora, CO

11/2014 Evaluation of the Patient with Headache, 2nd session

Family Medicine Review-Workshop

Aurora, CO

11/2014 Primary Headaches

Teaching session for Pain Medicine fellows at the University of Colorado SOM

Aurora, CO

12/2014 Headache and Pregnancy

Teaching session for Ob/Gyn fellows and faculty at the University of Colorado

SOM

Aurora, CO

6/2015 Trigeminal System Modulation for Migraine

Annual Neurology Department Research Retreat, University of Colorado SOM

Aurora, CO

9/2016 Chronic Headache: Common and Under Diagnosed, Disabling and Treatable

Neurology Department Grand Rounds, University of Colorado SOM

Aurora, CO

11/2015 Cefaly Device for Prevention of Chronic Migraine: Pilot Study, Preliminary

Results

American Headache Society Annual Symposium

Scottsdale, AZ

3/2016 Headache Module for the Neurology Residents

Teaching session for Neurology residents at University of Colorado SOM

Aurora, CO

5/2016 Headache Overview for Pain Medicine Fellows, Anesthesiology and PM&R

Residents

Aurora, CO

6/2016 Cefaly Device for Prevention of Chronic Migraine: Pilot Study, Preliminary

Results

American Headache Society Annual Scientific Meeting

San Diego, CA

6/2016 Headache and Cerebrovascular System

Overview for UCH Stroke Fellowship Program

Aurora, CO

10/2016 Migraine: What is it and what matters for the patient?

Monthly Behavioral Neurology & Neuropsychiatry Conference

Neurology, University of Colorado SOM

11/2016 Headache and Migraine

Neuroscience Conference for RNs and AAPs

University of Colorado Hospital

12/2016 Alphaherpesviruses and Headache: An Update and Single Center Experience

Neurology Grand Rounds

Aurora, CO

5/2017 Alphaherpesviruses and Headache: single center experience

Colorado Alphaherpesviruses Latency Society annual meeting

Vail, Colorado

1/2018 Headache Module for the Neurology Residents

Teaching session for Neurology residents at University of Colorado SOM

Aurora, CO

5/2018 Headache overview for Rose Family Medicine Residents

Rose hospital, Denver, CO

5/2018 Sinus and headache

Presentation during Rhinology education series for ENT residents

University of Colorado SOM, Aurora, CO

11/2018 Anti CGRP antibodies for Migraine Prevention: overview. Invited presentation for

the Colorado Neurological Society

Denver, CO

2/2019 Alphaherpesviruses reactivation and headache disorders: a single center

Experience

“Pathways of migraine” symposium

Anschutz Medical Center, Aurora, CO

4/2019 Primary headache: overview for Pain fellows and Anesthesiology residents

Aurora, CO

12/2020 Migraine: what is it and what matters for the patient?

“Miles for Migraine” Educational day

**BIBLIOGRAPHY**

**Peer-reviewed articles**

1. Birlea S, **Birlea M**, Cosgarea R, Cimponeriu D, Apostu P, Costin G, Das PK. Autoimmune diseases and vitamin D receptor Apa-I polymorphism are associated with vitiligo in a small inbred Romanian community. Acta Dermato Venereologica, 86(3):209-214, 2006. <https://www.ncbi.nlm.nih.gov/pubmed/16710576>
2. Owens GP, Bennett JL, Lassmann H, O'Connor KC, Ritchie AM, Shearer A, Lam C, Yu X, **Birlea M**, DuPree C, Williamson AR, David A. Hafler DA, Burgoon MP, Gilden D. Antibodies produced by clonally expanded plasma cells in multiple sclerosis CSF. Annals of Neurology. 65(6):639-49, 2009. <https://www.ncbi.nlm.nih.gov/pubmed/19557869>
3. **Birlea** **M**, Arendt G, Orhan E, Schmid DS, Bellini WJ, Schmidt C,, Gilden D, Cohrs RJ. Subclinical reactivation of varicella zoster virus in all stages of HIV infection. Journal of Neurological Sciences. 304(1-2):22-4, 2011. <https://www.ncbi.nlm.nih.gov/pubmed/21419427>
4. **Birlea** **M**, Owens G, Eshleman E, Ritchie A, Traktinskyi I, Bos N, Seitz S, Mahalingam R, Gilden D and Cohrs RJ**.** Human recombinant anti-VZV antibody produced after Zostavax immunization recognizes gH/gL complex and neutralizes virus infection. Journal of Virology. 87(1):415-422, 2013. <https://www.ncbi.nlm.nih.gov/pubmed/23077312>
5. **Birlea** **M**, Nagel MA, Khmeleva N, Choe A, Kleinschmidt-Demasters B, Hevner R, Boyer P, Lear-Kaul KC, Bos N, Wellish M, Cohrs RJ, Gilden D. Varicella-zoster virus trigeminal ganglioneuritis without rash. Neurology. 82(1):90-92, 2014. <https://n.neurology.org/content/82/1/90>
6. **Birlea M**, Cohrs RJ, Bos N, Mehta S, Pierson DL and Gilden D. Search for varicella-zoster virus DNA in saliva of healthy individuals aged 20-59 years. Journal of Medical Virology. 86(2):360–362, 2014. <https://www.ncbi.nlm.nih.gov/pubmed/24338812>
7. **Birlea M,** Sophie Penning, Kyle Callahan, Jean Schoenen. Efficacy and safety of external trigeminal neurostimulation in the prevention of chronic migraine: an open-label trial. Cephalalgia reports.2019 <https://journals.sagepub.com/doi/full/10.1177/2515816319856625>
8. Schwedt TJ, Digre K, Tepper SJ, Spare NM, Ailani J, **Birlea M**, Burish M, Mechtler L, Gottschalk C, Quinn AM, McGillicuddy L, Bance L, Dumkrieger G, Chong CD, Dodick DW. [The American Registry for Migraine Research: Research Methods and Baseline Data for an Initial Patient Cohort.](https://pubmed.ncbi.nlm.nih.gov/31755111/) Headache. 2020 Feb;60(2):337-347. <https://pubmed.ncbi.nlm.nih.gov/31755111/>
9. [Todd J Schwedt](https://pubmed.ncbi.nlm.nih.gov/?term=Schwedt+TJ&cauthor_id=33432635), [Joseph G Hentz](https://pubmed.ncbi.nlm.nih.gov/?term=Hentz+JG&cauthor_id=33432635), [Soma Sahai-Srivastava](https://pubmed.ncbi.nlm.nih.gov/?term=Sahai-Srivastava+S&cauthor_id=33432635), [Nicole M Spare](https://pubmed.ncbi.nlm.nih.gov/?term=Spare+NM&cauthor_id=33432635), [Vincent T Martin](https://pubmed.ncbi.nlm.nih.gov/?term=Martin+VT&cauthor_id=33432635), [Christina Treppendahl](https://pubmed.ncbi.nlm.nih.gov/?term=Treppendahl+C&cauthor_id=33432635), [Kathleen Digre](https://pubmed.ncbi.nlm.nih.gov/?term=Digre+K&cauthor_id=33432635), [Nathan L Bennett](https://pubmed.ncbi.nlm.nih.gov/?term=Bennett+NL&cauthor_id=33432635)**,**[**Marius Birlea**](https://pubmed.ncbi.nlm.nih.gov/?term=Birlea+M&cauthor_id=33432635), [David Watson](https://pubmed.ncbi.nlm.nih.gov/?term=Watson+D&cauthor_id=33432635), [Natalia Murinova](https://pubmed.ncbi.nlm.nih.gov/?term=Murinova+N&cauthor_id=33432635), [Teri Robert](https://pubmed.ncbi.nlm.nih.gov/?term=Robert+T&cauthor_id=33432635), [David W Dodick](https://pubmed.ncbi.nlm.nih.gov/?term=Dodick+DW&cauthor_id=33432635), [MOTS Investigators](https://pubmed.ncbi.nlm.nih.gov/?term=MOTS+Investigators%5BCorporate+Author%5D). Headache characteristics and burden from chronic migraine with medication overuse headache: Cross-sectional observations from the Medication Overuse Treatment Strategy trial. Headache. 2021 Jan 12. Online ahead of print. <https://pubmed.ncbi.nlm.nih.gov/33432635/>
10. [Jill R Schofield](https://pubmed.ncbi.nlm.nih.gov/?term=Schofield+JR&cauthor_id=33402037), [Hannah N Hughes](https://pubmed.ncbi.nlm.nih.gov/?term=Hughes+HN&cauthor_id=33402037), [**Marius Birlea**](https://pubmed.ncbi.nlm.nih.gov/?term=Birlea+M&cauthor_id=33402037), [Kathryn L Hassell](https://pubmed.ncbi.nlm.nih.gov/?term=Hassell+KL&cauthor_id=33402037). A trial of antithrombotic therapy in patients with refractory migraine and antiphospholipid antibodies: A retrospective study of 75 patients. Lupus. 2021 Jan 5. Online ahead of print. <https://pubmed.ncbi.nlm.nih.gov/33402037/>

**Book chapters**

**Birlea M**, Nagel MA, Cohrs RJ, Mahalingam R, James,S, Gilden D. Varicella-zoster virus. In: Encyclopedia of Neurological Sciences 2E (MJ Aminoff, RD Daroff, eds), Elsevier Inc., San Diego, CA. 2014.

**Birlea M,** Mark Green: Current classification of Chronic Daily Headache. Collecting the history in CDH patients. In Green, Mark W., Cowan, Robert, Freitag, Frederick (Eds.) Chronic Headache – A Comprehensive Guide to Evaluation and Management. Springer 2018

**Posters/Abstracts**

1. **Birlea M**, Bigal M. An assessment of headache prevalence at work place. Poster - The 11th International Headache Society Congress, Rome, Italy, 9/2003.
2. **Birlea M**. The Second International Classification of Cephalalgic Disorders (Jes Olesen). Poster - Annual National Romanian Neurology Conference, Bucharest, Romania, 10/2003.
3. **Birlea M**, Strom L. Basilar type migraine and multiple cavernomas.Accepted for poster presentation at the 14th International Headache Society Congress, Philadelphia, PA, September 2009.
4. **Birlea M**, Schmid S, Arendt G, Christian S,Bennett J,Bautista K, Owens G, Hemmer B, Cepok S, Gilden D, Cohrs RJ. VZV reactivates sub clinically in 21% of HIV positive individuals. Poster - The 10th International Symposium on NeuroVirology, Milan, Italy, 10/2010.
5. **Birlea M**, Owens G, Eshleman E, Ritchie A, Traktinskyi I, Bos N, Seitz S, Yu X, Pointon T, Wellish M, Mahalingam M, Gilden D and Cohrs RJ**.** Human recombinant antibody against varicella-zoster virus (VZV). Poster - Neurology Research Retreat, University of Colorado School of Medicine, Aurora, CO, 05/2012.
6. **Birlea M,** Braun C, Kern D, Jones W, Ringel SP, Kenneth L Tyler KL. Improved Timeliness of Neurology Consults in the Emergency Department**.** Poster - The Annual Meeting of the American Neurological Association. Boston, MA, 10/2012. *Travel award*
7. Laura Weinkle, Stefan Sillau, **Marius Birlea** Alphaherpesviruses and Headache: single center experience

AAN annual Meeting, Boston, 4/2017

1. **Marius Birlea,** Laura Weinkle, Stefan Sillau. Alphaherpesviruses and Headache: single center experience. International Headache Society annual Meeting, Boston, 6/2017
2. Todd J. Schwedt MD, Nicole Spare DO, Vince Martin MD, Christina Treppendahl FNP, Nate Bennett MD, **Marius Birlea** MD, Justin DeLange DO, Joe Hentz, David W. Dodick MD. The Medication Overuse Treatment Strategy (MOTS) Trial: Description of the Patient Cohort at Baseline. Annual AHS Meeting, July 2019, Philadelphia

**REVIEWER Ad-hoc**

* American Family Physician; BMC Infectious Diseases; Frontiers in Neurology; Headache; Pain Medicine; Viruses; Journal of Medical Virology; Medicina; Journal of Neuropsychiatry and Clinical Neurosciences; Vaccines; EC Neurology .

**LANGUAGES SPOKEN**

* Fluent in English and Romanian
* Conversational in Spanish
* Knowledge of French, German, Italian, Hungarian

**INTERESTS/HOBBIES**

* Music (rock, classical, jazz, hip-hop)
* Reading
* Soccer
* Chess

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