



## Katie Cederberg

Postdoctoral Scholar, Psychiatry

### Bio

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#### BIO

Dr. Cederberg is a postdoctoral scholar at Stanford University in the Mignot Lab, where she devotes her time to conducting research leveraging large datasets and machine learning approaches aimed at better understanding the relationship among genetics, proteomics and the presence and severity of symptoms related to sleep disorders. Her research further focuses on studying the effectiveness of exercise for managing symptoms of sleep disorders, primarily restless legs syndrome (RLS) and co-occurring conditions (e.g., periodic limb movements and insomnia). Her current research explores patients' experiences with exercise and RLS, as well as the relationship between exercise and proteomic biomarkers of RLS. She received her PhD in Rehabilitation Science from the University of Alabama at Birmingham, and her dissertation used a series of methodological approaches to comprehensively examine the relationship between physical activity and RLS in adults who have multiple sclerosis. She is using her experience and training to develop a line of research for identifying the mechanism of action for the effect of exercise and informing exercise prescription parameters for managing symptoms of RLS.

#### HONORS AND AWARDS

- RLS Research Grant Program, Restless Legs Syndrome Foundation/American Academy of Sleep Medicine Foundation (2025)
- Wayne Hening Young Investigator Award, International Restless Legs Syndrome Study Group (2025)
- Career Development Award, Sleep Research Society Foundation (2024)
- Focused Projects Grant for Junior Investigators, American Academy of Sleep Medicine Foundation (2024)
- NIH Loan Repayment Program, National Heart, Lung, and Blood Institute (NHLBI) (2024)
- Trailblazing Trainee Award, Stanford University Department of Psychiatry & Behavioral Sciences (2024)
- Trans-Omics for Precision Medicine (TOPMed) Fellowship, National Heart, Lung, and Blood Institute (NHLBI) (2024)
- New Investigator Award, World Sleep Society (2023)
- Trainee Merit Based Award, Sleep Research Society (2023)
- Wayne Hening Young Investigator Award, International Restless Legs Syndrome Study Group (2023)
- Young Investigator Research Forum, American Academy of Sleep Medicine (2023)
- NIH Loan Repayment Program, National Heart, Lung, and Blood Institute (2022)
- Trainee Investigator Award, Honorable Mention, American Academy of Sleep Medicine (2022)
- Trainee Merit Based Award, Sleep Research Society (2021)
- Wayne Hening Young Investigator Award, International Restless Legs Syndrome Study Group (2021)
- Samuel B. Barker Award for Excellence in Graduate Studies, University of Alabama at Birmingham (2020)
- Trainee Merit Based Award, Sleep Research Society (2019)

- Travel Award, Center for Exercise Medicine, University of Alabama at Birmingham (2017)

## BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Board Member, Scientific and Medical Advisory Board, Restless Legs Syndrome Foundation (2025 - present)
- Member, Stanford Center for Sleep & Circadian Sciences (2023 - present)
- Member, International Restless Legs Syndrome Study Group (2021 - present)
- Member, American Academy of Sleep Research (2020 - present)
- Member, Sleep Research Society (2019 - present)
- Member, Restless Legs Syndrome Foundation (2018 - present)

## PROFESSIONAL EDUCATION

- PhD, University of Alabama at Birmingham , Rehabilitation Science (2020)
- MS, Central Washington University , Exercise Science (2013)
- BA, Linfield College , Exercise Science (2011)

## STANFORD ADVISORS

- Emmanuel Mignot, Postdoctoral Faculty Sponsor

## Publications

### PUBLICATIONS

- **Multiple sclerosis is associated with worse body composition across compartments: Results from a systematic review and meta-analysis.** *Multiple sclerosis and related disorders*  
Pilutti, L. A., Silveira, S. L., Herring, M. P., Jeng, B., Edwards, T., Cederberg, K. L., Fournier, K., Motl, R. W.  
2025; 101: 106553
- **The Clinical Impact of Periodic Limb Movements: Under-Recognition in Sleep Disordered Breathing and Associations with Key Outcomes in 493,085 Patients**  
Green, Y., Hanif, U., Cederberg, K., Moore, H., Gimenez, U., Mignot, E.  
OXFORD UNIV PRESS INC.2025: A391
- **Proteomic Profiling in Restless Legs Syndrome**  
Cederberg, K., Rotter, J., Rich, S., Ganz, P., Mignot, E.  
OXFORD UNIV PRESS INC.2025: A396-A397
- **Sedentary behavior, physical activity, and health-related quality of life in adults with multiple sclerosis.** *Disability and rehabilitation*  
Jeng, B., Cederberg, K. L., Sasaki, J. E., Motl, R. W.  
2025: 1-7
- **Randomized Controlled Trial of the Behavioral Intervention for Increasing Physical Activity in Multiple Sclerosis Project: Fidelity Monitoring and Outcomes.** *Behavioral medicine (Washington, D.C.)*  
Silveira, S. L., Kidwell-Chandler, A., Huynh, T. L., Cederberg, K. L., Jeng, B., Sikes, E. M., Motl, R. W.  
2024: 1-8
- **PERCEIVED EXERCISE RESPONSE HETEROGENEITY IN ADULTS WITH RESTLESS LEGS SYNDROME**  
Cederberg, K., Sikes, E., Mejia, G., Mignot, E.  
OXFORD UNIV PRESS INC.2024: A300
- **CIRCADIAN PROTEINS AND CIRCADIAN PHASE ESTIMATION IN HEALTHY ADULTS**  
Specht, A., Saha, P., Cederberg, K., Bueno, F., Arrona-Palacios, A., Pardilla-Delgado, E., Ruiz-Herrera, N., Zitting, K., Kramer, A., Zeitzer, J., Czeisler, C., Duffy, J., Mignot, et al  
OXFORD UNIV PRESS INC.2024
- **Circadian protein expression patterns in healthy young adults.** *Sleep health*

- Specht, A., Kolosov, G., Cederberg, K. L., Bueno, F., Arrona-Palacios, A., Pardiella-Delgado, E., Ruiz-Herrera, N., Zitting, K. M., Kramer, A., Zeitzer, J. M., Czeisler, C. A., Duffy, J. F., Mignot, et al  
2023
- **Stakeholder involvement in the optimization of a patient-centered exercise intervention for people with restless legs syndrome.** *Journal of clinical sleep medicine : JCSM : official publication of the American Academy of Sleep Medicine*  
Cederberg, K. L., Sikes, E. M., Mignot, E.  
2023
  - **Proteomic insights into the pathophysiology of periodic limb movements and restless legs syndrome.** *Sleep health*  
Cederberg, K. L., Peris Sempere, V., Lin, L., Zhang, J., Leary, E. B., Moore, H., Morse, A. M., Blackman, A., Schweitzer, P. K., Kotagal, S., Bogan, R., Kushida, C. A., STAGES cohort investigator group, et al  
2023
  - **Perceptions of exercise and restless legs syndrome: Results from a nationwide survey.** *Journal of sleep research*  
Cederberg, K. L., Sikes, E. M., Mignot, E.  
2023: e13980
  - **Do fatigue and depression have a bivariate association with device-measured physical activity behavior in persons with multiple sclerosis?** *Disability and rehabilitation*  
Jones, C. D., Kidwell-Chandler, A., Cederberg, K. L., Sikes, E. M., Motl, R. W.  
2023: 1-6
  - **PERCEPTIONS OF PEOPLE WITH RESTLESS LEGS SYNDROME ON THE EFFECT OF EXERCISE ON SYMPTOMS: RESULTS OF A NATIONWIDE SURVEY**  
Cederberg, K., Sikes, E., Mignot, E.  
OXFORD UNIV PRESS INC.2023
  - **Vitamin D and Restless Legs Syndrome: A Review of Current Literature.** *Tremor and other hyperkinetic movements (New York, N.Y.)*  
Cederberg, K. L., Silvestri, R., Walters, A. S.  
2023; 13: 12
  - **Does physical activity timing differentially correlate with symptoms of restless legs syndrome in adults with multiple sclerosis?** *Sleep medicine*  
Cederberg, K. L., Jeng, B., Sasaki, J. E., Schuetz, M. L., Mathison, B. G., Motl, R. W.  
2022; 100: 120-127
  - **Proteomic Biomarkers of Kleine-Levin Syndrome.** *Sleep*  
Hedou, J., Cederberg, K. L., Ambati, A., Lin, L., Farber, N., Dauvilliers, Y., Quadri, M., Bourgin, P., Plazzi, G., Andlauer, O., Hong, S. C., Huang, Y., Leu-Semenescu, et al  
2022
  - **Proteomic Biomarkers of the Apnea Hypopnea Index and Obstructive Sleep Apnea: Insights into the Pathophysiology of Presence, Severity, and Treatment Response.** *International journal of molecular sciences*  
Cederberg, K. L., Hanif, U., Peris Sempere, V., Hedou, J., Leary, E. B., Schneider, L. D., Lin, L., Zhang, J., Morse, A. M., Blackman, A., Schweitzer, P. K., Kotagal, S., Bogan, et al  
2022; 23 (14)
  - **Restless Legs Syndrome Severity and Cognitive Function in Adults With Multiple Sclerosis: An Exploratory Pilot Study.** *International journal of MS care*  
Cederberg, K. L., Mathison, B., Schuetz, M. L., Motl, R. W.  
2022; 24 (4): 154-161
  - **Restless legs syndrome severity associated with reduced physical function in adults with multiple sclerosis.** *Gait & posture*  
Cederberg, K. L., Schuetz, M. L., Mathison, B., Motl, R. W.  
2022; 97: 56-61
  - **The Genetic Etiology of Periodic Leg Movement in Sleep.** *Sleep*  
Edelson, J. L., Schneider, L. D., Amar, D., Brink-Kjaer, A., Cederberg, K. L., Kutalik, Z., Hagen, E. W., Peppard, P. E., Tempaku, P. F., Tufik, S., Evans, D. S., Stone, K., Tranah, et al  
2022

- **PROTEOMIC APPROACH FOR UNDERSTANDING THE MECHANISMS OF PERIODIC LIMB MOVEMENTS AND RESTLESS LEGS SYNDROME**

Cederberg, K., Hanif, U., Leary, E., Schneider, L., Morse, A., Blackman, A., Schweitzer, P., Kotagal, S., Bogan, R., Kushida, C., Mignot, E. OXFORD UNIV PRESS INC.2022: A244

- **PROTEOMIC BIOMARKERS OF OBSTRUCTIVE SLEEP APNEA**

Cederberg, K., Hanif, U., Leary, E., Schneider, L., Morse, A., Blackman, A., Schweitzer, P., Kotagal, S., Bogan, R., Kushida, C., Mignot, E. OXFORD UNIV PRESS INC.2022: A326

- **Physical activity and sedentary behavior timing in fatigued and non-fatigued adults with multiple sclerosis.** *Archives of physical medicine and rehabilitation*

Cederberg, K. L., Jeng, B., Sasaki, J. E., Motl, R. W. 1800

- **Social Cognitive Theory variables as correlates of physical activity in fatigued persons with multiple sclerosis.** *Multiple sclerosis and related disorders*

Jeng, B., Cederberg, K. L., Huynh, T. L., Silic, P., Jones, C. D., Feasel, C. D., Sikes, E. M., Baird, J. F., Silveira, S. L., Sasaki, J. E., Motl, R. W. 2022; 57: 103312

- **Demographic, clinical, and symptomatic correlates of subjective sleep quality in adults with multiple sclerosis.** *Multiple sclerosis and related disorders*

Cederberg, K. L., Jeng, B., Sasaki, J. E., Sikes, E. M., Silveira, S. L., Cutter, G., Motl, R. W. 2021; 55: 103204

- **Discrepancies between self-reported and device-measured sleep parameters in adults with multiple sclerosis.** *Journal of clinical sleep medicine : JCSM : official publication of the American Academy of Sleep Medicine*

Cederberg, K. L., Mathison, B. G., Schuetz, M. L., Motl, R. W. 2021

- **Do physical activity and social cognitive theory variable scores differ across symptom cluster severity groups in multiple sclerosis?** *Disability and health journal*

Silveira, S. L., Cederberg, K. L., Jeng, B., Sikes, E. M., Sandroff, B. M., Jones, C. D., Motl, R. W. 2021: 101163

- **Accuracy and precision of wrist-worn actigraphy for measuring steps taken during over-ground and treadmill walking in adults with Parkinson's disease.** *Parkinsonism & related disorders*

Cederberg, K. L., Jeng, B., Sasaki, J. E., Lai, B., Bamman, M., Motl, R. W. 2021; 88: 102-107

- **Validity and reliability of the suggested immobilization test for measurement of restless legs syndrome severity in adults with multiple sclerosis.** *Sleep medicine*

Cederberg, K. L., Walters, A. S., Amara, A. W., Braley, T. J., Schuetz, M. L., Mathison, B. G., Motl, R. W. 2021; 84: 343-351

- **Physical activity and self-reported sleep quality in adults with multiple sclerosis.** *Disability and health journal*

Cederberg, K. L., Jeng, B., Sasaki, J. E., Sikes, E. M., Cutter, G., Motl, R. W. 2021: 101133

- **EFFICACY OF A PHYSICAL ACTIVITY INTERVENTION FOR MANAGING RESTLESS LEGS SYNDROME IN MULTIPLE SCLEROSIS: A PILOT RCT**

Cederberg, K., Motl, R. OXFORD UNIV PRESS INC.2021: A209

- **Feasibility and efficacy of a physical activity intervention for managing restless legs syndrome in multiple sclerosis: Results of a pilot randomized controlled trial.** *Multiple sclerosis and related disorders*

Cederberg, K. L., Motl, R. W. 2021; 50: 102836

- **Wrist-based accelerometer cut-points for quantifying moderate-to-vigorous intensity physical activity in Parkinson's disease.** *Gait & posture*

Jeng, B., Cederberg, K. L., Lai, B., Sasaki, J. E., Bamman, M. M., Motl, R. W.

2021; 91: 235-239

- **Accelerometer output and its association with energy expenditure in persons with mild-to-moderate Parkinson's disease** *PLOS ONE*  
Jeng, B., Cederberg, K. L. J., Lai, B., Sasaki, J. E., Bamman, M. M., Motl, R. W.  
2020; 15 (11): e0242136
- **Symptom clusters and quality of life in persons with multiple sclerosis across the lifespan** *QUALITY OF LIFE RESEARCH*  
Silveira, S. L., Cederberg, K. L. J., Jeng, B., Sikes, E., Sandroff, B. M., Jones, C. D., Motl, R. W.  
2021; 30 (4): 1061-1071
- **Oxygen cost of over-ground walking in persons with mild-to-moderate Parkinson's disease** *GAIT & POSTURE*  
Jeng, B., Cederberg, K. L. J., Lai, B., Sasaki, J. E., Bamman, M. M., Motl, R. W.  
2020; 82: 1-5
- **Restless legs syndrome, sleep quality, and perceived cognitive impairment in adults with multiple sclerosis** *MULTIPLE SCLEROSIS AND RELATED DISORDERS*  
Cederberg, K. L. J., Jeng, B., Sasaki, J. E., Motl, R. W.  
2020; 43: 102176
- **Walking and cognitive performance in adults with multiple sclerosis: Do age and fatigability matter?** *MULTIPLE SCLEROSIS AND RELATED DISORDERS*  
Jones, C., Cederberg, K. L., Sikes, E., Wylie, G. R., Motl, R. W., Sandroff, B. M.  
2020; 42: 102136
- **Restless legs syndrome and health-related quality of life in adults with multiple sclerosis** *JOURNAL OF SLEEP RESEARCH*  
Cederberg, K. L. J., Jeng, B., Sasaki, J. E., Braley, T. J., Walters, A. S., Motl, R. W.  
2020; 29 (3): e12880
- **Is Symptomatic Fatigue Associated With Physical Activity and Sedentary Behaviors Among Persons With Multiple Sclerosis?** *NEUROREHABILITATION AND NEURAL REPAIR*  
Neal, W. N., Cederberg, K. L., Jeng, B., Sasaki, J. E., Motl, R. W.  
2020; 34 (6): 505-511
- **Step-rate threshold for physical activity intensity in Parkinson's disease** *ACTA NEUROLOGICA SCANDINAVICA*  
Jeng, B., Cederberg, K. L., Lai, B., Sasaki, J. E., Bamman, M. M., Motl, R. W.  
2020; 142 (2): 145-150
- **Quantitative Synthesis of Timed 25-Foot Walk Performance in Multiple Sclerosis** *ARCHIVES OF PHYSICAL MEDICINE AND REHABILITATION*  
Sikes, E., Cederberg, K. L., Sandroff, B. M., Bartolucci, A., Motl, R. W.  
2020; 101 (3): 524-534
- **Accuracy and Precision of Three Consumer-Grade Motion Sensors During Overground and Treadmill Walking in People With Parkinson Disease: Cross-Sectional Comparative Study.** *JMIR rehabilitation and assistive technologies*  
Lai, B., Sasaki, J. E., Jeng, B., Cederberg, K. L., Bamman, M. M., Motl, R. W.  
2020; 7 (1): e14059
- **Exercise and multiple sclerosis: Benefits, participation rates, determinants, and opportunities** *The Handbook of Sport Psychology, Fourth Edition*  
Motl, R. W., Cederberg, K. L., Sandroff, B. M.  
John Wiley & Sons, Inc..2020
- **Physical activity, sedentary behavior, and restless legs syndrome in persons with multiple sclerosis** *JOURNAL OF THE NEUROLOGICAL SCIENCES*  
Cederberg, K. L. J., Jeng, B., Sasaki, J. E., Braley, T. J., Walters, A. S., Motl, R. W.  
2019; 407: 116531
- **Validity of Sitting Time Scores From the International Physical Activity Questionnaire-Short Form in Multiple Sclerosis** *REHABILITATION PSYCHOLOGY*  
Motl, R. W., Sasaki, J. E., Cederberg, K. L., Jeng, B.  
2019; 64 (4): 463-468

- **Does restless legs syndrome impact cognitive function via sleep quality in adults with Parkinson's disease?** *INTERNATIONAL JOURNAL OF NEUROSCIENCE*  
Cederberg, K. L., Brinkley, E. B., Belotserkovskaya, N., Memon, R. A., Motl, R. W., Amara, A. W.  
2020; 130 (4): 322-329
- **Self-efficacy and walking performance across the lifespan among adults with multiple sclerosis** *NEURODEGENERATIVE DISEASE MANAGEMENT*  
Sikes, E., Cederberg, K. L., Baird, J. F., Sandroff, B. M., Motl, R. W.  
2019; 9 (5): 267-275
- **Social-cognitive theory variables as correlates of sedentary behavior in multiple sclerosis: Preliminary evidence** *DISABILITY AND HEALTH JOURNAL*  
Motl, R. W., Sasaki, J. E., Cederberg, K. L., Jeng, B.  
2019; 12 (4): 622-627
- **Physical activity and walking performance across the lifespan among adults with multiple sclerosis** *MULTIPLE SCLEROSIS AND RELATED DISORDERS*  
Baird, J. F., Cederberg, K. L. J., Sikes, E., Silveira, S. L., Jeng, B., Sasaki, J. E., Sandroff, B. M., Motl, R. W.  
2019; 35: 36-41
- **Changes in Cognitive Performance With Age in Adults With Multiple Sclerosis** *COGNITIVE AND BEHAVIORAL NEUROLOGY*  
Baird, J. F., Cederberg, K. L. J., Sikes, E., Jeng, B., Sasaki, J. E., Sandroff, B. M., Motl, R. W.  
2019; 32 (3): 201-207
- **Walking endurance in multiple sclerosis: Meta-analysis of six-minute walk test performance** *GAIT & POSTURE*  
Cederberg, K. L. J., Sikes, E., Bartolucci, A. A., Motl, R. W.  
2019; 73: 147-153
- **Use of the Godin leisure-time exercise questionnaire in multiple sclerosis research: a comprehensive narrative review** *DISABILITY AND REHABILITATION*  
Sikes, E., Richardson, E., Cederberg, K. J., Sasaki, J. E., Sandroff, B. M., Motl, R. W.  
2019; 41 (11): 1243-1267
- **Sociodemographic and clinical correlates of device-measured sedentary behaviour in multiple sclerosis** *DISABILITY AND REHABILITATION*  
Jeng, B., Sasaki, J. E., Cederberg, K. L., Motl, R. W.  
2021; 43 (1): 42-48
- **Characteristics of Adults With Neurologic Disability Recruited for Exercise Trials: A Secondary Analysis** *ADAPTED PHYSICAL ACTIVITY QUARTERLY*  
Lai, B., Cederberg, K., Vanderbom, K. A., Bickel, C., Rimmer, J. H., Motl, R. W.  
2018; 35 (4): 476-497
- **Magnitude and duration of acute-exercise intensity effects on symptoms of restless legs syndrome: a pilot study** *SLEEP AND BIOLOGICAL RHYTHMS*  
Cederberg, K. L., Motl, R. W., Burnham, T. R.  
2018; 16 (3): 337-344
- **Self-Regulatory Strategies as Correlates of Physical Activity Behavior in Persons With Multiple Sclerosis** *ARCHIVES OF PHYSICAL MEDICINE AND REHABILITATION*  
Cederberg, K. L., Balto, J. M., Motl, R. W.  
2018; 99 (5): 920-926
- **Physical Activity, Sedentary Behavior, and Physical Function in Older Adults With Multiple Sclerosis** *JOURNAL OF AGING AND PHYSICAL ACTIVITY*  
Cederberg, K. L., Motl, R. W., McAuley, E.  
2018; 26 (2): 177-182
- **Fluid Intake and Sweat Rate During Hot Yoga Participation** *INTERNATIONAL JOURNAL OF EXERCISE SCIENCE*  
Campbell, S., Pritchett, R., Cederberg, K., Burnham, T., Pritchett, K.  
2017; 10 (5): 721-733

- **Restless legs syndrome in multiple sclerosis: A call for better understanding and non-pharmacological management** *CURRENT TRENDS IN NEUROLOGY*  
Cederberg, K. L., Motl, R. W.  
2016; 10: 65-73