**CURRICULUM VITAE**

Robynne G. Braun, MD, PhD

Assistant Professor, University of Maryland, Department of Neurology

Director, Inpatient Rehabilitation Medicine Program
University of Maryland Medical Center

**Date**: 03/18/2022

**Contact Information**:

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**Languages** French, SAS, Matlab, R

**Education**

|  |  |
| --- | --- |
| 1988 – 1993 | Columbia College, Chicago (1988 – 1993) B.A. in Choreography |
| 2000 – 2002 | University of Illinois, Chicago (2000 – 2002) M.S. in Kinesiology with a concentration in Motor Control and Learning. Thesis: *The role of task concept in the performance of new interlimb coordination patterns*.  |
| 2001 – 2007 | University of Illinois, Chicago (2002 – 2007) Ph.D. in Movement Sciences with a concentration in Motor Control and Learning. Dissertation: *Visuomotor transformation in movement imitation: examining predictions based on models of apraxia and motor control.* |
| 2007 – 2011 | Loyola University Stritch School of Medicine (2007 – 2011) Doctorate of Medicine with Honors in Research. Research Project: *Kinematic analysis of motor recovery with human adult bone marrow derived somatic cell therapy in a rat model of stroke.* |

**Post-graduate Education and Training**

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| 2011 – 2012 | Loyola University Medical Center (2011 – 2012) Internship in Internal Medicine |
| 2012 – 2015 | University of Washington Medical Center (2012 – 2015). Residency in Physical Medicine and Rehabilitation. Research Project:  *Effects of mechanical stretch on gene transfer for treatment of inherited myopathies.* |
| 2015 – 2016 | Johns Hopkins Bloomberg School of Public Health. Postdoctoral Trainee, Science of Clinical Investigation Training Program |

**Certifications**

Board Certified, American Board of Physical Medicine and Rehabilitation (7/1/18 – 12/31/2028)

Certification in Transcranial Magnetic Stimulation, Medical University of South Carolina (2018)

**Medical Licensures**

Maryland (Active, issued 8/6/15)

Washington (Inactive, issued 7/31/15)

Illinois (Inactive, issued 6/21/12)

**EMPLOYMENT HISTORY**

**Academic Appointments**

|  |  |
| --- | --- |
| 2003 – 2004 | Instructor, Dept. of Science & Mathematics, Columbia College Chicago |
| 2003 – 2004 | Instructor, Dept. of Dance, Columbia College Chicago |
| 2007 – 2011 | Instructor, Dept. of Kinesiology, University of Illinois at Chicago |
| 2016 – Present | Assistant Professor, Dept. of Neurology, University of Maryland |

**Other Employment**

2015 – 2016 Consulting Physician, Integrated Rehab Consultants

**Professional Society Membership**

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| --- | --- |
| 2000 – 2007 | International Association for Dance, Medicine and Science |
| 2001 – 2007 | Performing Arts Medicine Association  |
| 2004 – 2011 | Human Anatomy and Physiology Society  |
| 2009 – 2010 | International Society of Physical and Rehabilitation Medicine |
| 2005 – 2016 | American Congress of Rehabilitation Medicine |
| 2009 – Present | American Academy of Physical Medicine and Rehabilitation  |
| 2012 – Present | Association of Academic Physiatrists |
| 2016 – Present | American Society of Neurorehabilitation |

**Honors and Awards**

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| --- | --- |
| 1991 | Scholarship for Academic Excellence; Columbia College |
| 1992 | Award for Outstanding Achievement; Columbia College |
| 2001, 2002, 2005 | Dean’s List; University of Illinois, Chicago  |
| 2002 | The Honor Society of Phi Kappa Phi |
| 2007  | STAR (Student Training Approaches to Research) Award, Loyola University Stritch School of Medicine |
| 2008, 2009 | Loyola University Stritch School of Medicine, Harrity Scholarship  |
| 2009 | ERF New Investigator Award, Foundation for PM&R, American Academy of Physical Medicine and Rehabilitation  |
| 2011 | Presenter in Neurological Best Research session, American Academy of Physical Medicine and Rehabilitation Annual Assembly  |
| 2019 | Presenter in RMSTP Best Paper Session, Academy of Academic Physiatrists Annual Assembly  |

**CLINICAL ACTIVITIES**

**Clinical Expertise**

Physiatrist with clinical and research focus on neurological rehabilitation and motor control/motor learning

**Clinical Activities**

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| --- | --- |
| 2016 - Present | Attending Physician, University of Maryland Medical Center. Program Director, Inpatient Rehabilitation Medicine program. UMMC PM&R consults 2 days/week. University of Maryland Rehabilitation and Orthopaedic Institute TBI/ SCI/CVA Unit weekend coverage every 5th week and SCI/TBI Unit coverage 2 days/month.  |

**Development of Clinical Programs**

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| 2015 – 2016 | Consulting Physician, Integrated Rehab Consultants. Established a new line of rehabilitation medicine services for post-acute facilities in the Baltimore area. Provided consultations on stroke, spinal cord injury, spasticity, amputee care, and recovery after orthopedic injuries and joint replacements. Provided pain management services including physical modalities, manual therapy, topical agents, behavioral therapies, systemic medications, joint injections and trigger point injections.  |
| 2018 – Present | Director, Inpatient Rehabilitation Medicine Program, University of Maryland Medical Center. Developed and implemented a new rehabilitation medicine program providing consults to the Stroke Neurology and General Neurology services. Worked with Executive Leadership to establish a multi-year plan for scaled expansion. Services expanded in 2019 to include Neurotrauma and Neurosurgery. Built new conservative management pathway for post-stroke dysphagia recovery and “Accelerated Recovery” pathway to expedite patient throughput in the Neurocritical Care, Neurotrauma and Neurosurgical Units.  |

**ADMINISTRATIVE SERVICE**

**Institutional Service**

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| 2007 | Structure of the Human Body Course Review Committee,Stritch School of Medicine |
| 2007 - 2011 | Technology in the Curriculum Committee, Stritch School of Medicine |
| 2010 | Central Curricular Authority, subcommittee on Time/Delivery in the Curriculum, Stritch School of Medicine |
| 2012 - 2014 | Residency Quality Improvement Committee, University of Washington |
| 2016 - Present | Rehabilitation Research Council, University of Maryland Rehabilitation and Orthopedic Institute |
| 2019 - Present | University of Maryland Medical System Stroke Council |
| 2020 - 2021 | 2-in-30 Initiative to improve patient throughput during COVID-19 |
| 2021 - Present | University of Maryland Neurosciences Network, UMMS Committee |
| 2022 - Present | Medical Executive Committee, University of Maryland Rehabilitation and Orthopedic Institute |

**Local, National and International Service:**

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| --- | --- |
| 2013 | Invited Reviewer, Behavioural Brain Research (1x/year) |
| 2019 - Present | Committee Member, International Stroke Genetics Consortium, Global Alliance of Acute and Long-term Outcome Studies Coordinating Committee (1x/month) |
| 2019 - Present | NIH National Institute of Neurological Disorders and Stroke (NINDS) Oversight Committee, Long Term Therapies Working Group  |
| 2019 - Present | Invited Reviewer, Stroke (2-3x/year) |
| 2019 - Present  | Invited Reviewer, Neurology (3-4x/year) |
| 2021 - Present | Invited Reviewer, Neurorehabilitation and Neural Repair (2-3x/year) |
| 2022 - Present | Invited Reviewer, Topics in Stroke Rehabilitation (2-3x/year) |

**TEACHING SERVICE**

**Undergraduate Student Teaching**

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| 1991 | English/writing tutor. The Writing Center of Columbia College |
| 2003 | Teaching Assistant in Human Physiological Anatomy. Univ. of Illinois at Chicago |
| 2004 | Instructor, Kinesiology. Columbia College Chicago |
| 2003 – 2004 | Instructor, Experiential Anatomy. Columbia College Chicago |
| 2004 – 2007 | Laboratory Coordinator/Head Teaching Assistant, Human Physiological Anatomy. University of Illinois at Chicago |
| 2004 – 2007 | Co-instructor, Workshop in Neuroanatomy for Occupational Therapy Students. University of Illinois at Chicago |
| 2007 – 2011 | Instructor, Continuing Education Gross Anatomy Workshop. University of Illinois at Chicago |

**Medical Student Teaching**

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| --- | --- |
| 2013 | Lecturer, University of Washington Chronic Care Clerkship, 15-20 4th year medical students ~ 3 contact hours/year |
| 2016 – 2018 | Clinical instruction, University of Maryland Rehabilitation Medicine rotation, 15 – 18 3rd and 4th year medical students, ~20 contact hours/year |
| 2018 – 2021 | Small Group Coordinator, Stroke Treatment and Rehabilitation session, University of Maryland Pathophysiology and Therapeutics course, 80 – 100 2nd year medical students, ~ 4 contact hours/year |
| 2021 – present | Lecturer, University of Maryland Brain and Behavior course, 155-160 1st yearmedical students ~ 3 contact hours/year |

**Post-Graduate Teaching**

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| 2004 – 2007 | Instructor, Anatomy Intensive for Occupational Therapy Students. University of Illinois at Chicago, 10 - 15 master’s level students – 16 contact hours/year |
| 2006 – 2007 | Instructor, OT 596, Occupational Therapy Human Anatomy Lab. University of Illinois at Chicago, 10 - 15 master’s level students – 80 contact hours/year |
| 2016 – Present | Lecturer, Neurology Resident Didactic Series, University of Maryland. Topics include prevention of secondary complications and neurorehabilitation after stroke. 12 – 15 residents and fellows ~ 6 contact hours/year |
| 2017 – 2021 | Coordinator, Neurology Resident and Stroke Fellow Rehabilitation Rotations. University of Maryland School of medicine. Coordinated TBI, SCI and stroke rotations for 12-resident and 2-fellow programs annually ~ 12 contact hours/year |

**Mentoring**

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| 2016 – 2017 | 1. MD/PhD student Anthony Park, advising for career development in PM&R research
2. Medical Student Conan So, travel grant awarded to present at AAPM&R 2017 on Posterior Circulation Stroke symptoms
3. Undergraduate Student Victoria Chang, advising for development of research skills including use of EMG and TMS for motor control research
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| 2018 - 2019 | 1. PM&R Resident Dr. Anthony Manfredo, advising for career development & research on factors influencing discharge location and outcomes for stroke and TBI patients
2. Medical Student Dominique Gelmann, advising for career development in PM&R
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| 2019 - 2020 | 1. MD/PhD Student Rebecca Lorsung, advising for career development in PM&R
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| 2020 - 2021 | 1. Neurology Resident Dr. Kenneth Han, advising for Graduate Residency Research Project on dysphagia prognosis in stroke
2. PhD Candidate Megan E. Wright, advising for capstone project in Healthcare Administration
3. Medical Student Indira Jetton, advising for career development, Women in Medicine and Science Mentoring Program
 |
| 2021 - 2022 | 1. Neurology Resident Dr. Matthew J. Woodward, advising for Graduate Residency Research Project, *Accelerated Recovery Pathway to Improve Patient Throughput and Access to Rehabilitation Services*
2. PhD Candidate Melissa E. Pauling, advising for StrokeNet Fellowship project *fNIRS Characterization of Cortical Activation Patterns across Rehabilitation Technology Platforms in Stroke Patients and Controls*
3. K12 Applicant Chad M. Aldridge PT, DPT, MS-CR, NCS, advising for NTRAIN K12 preparation. *Discovery of Shared Genetic Factors in Stroke Recovery through Precise Phenotyping*
4. PhD Candidate Shabnam Lateef, MS, DPT, Dept. of Physical Therapy & Rehabilitation Sciences, Graduate School, University of Maryland, Baltimore. *Reactive Balance Control Following Gait Perturbations in Chronic Stroke vs. Healthy Participants.*
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**FUNDING**

**Awarded Active Grants and Contracts**

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| 2021 - 2023 | Sub-Award PI, Pilot Grant Awardee, 10% Effort*Neural Mechanisms of Motor Recovery with Technology Assisted Training for Post-stroke Hemiparesis*NIH/NIA P30AG02874 Claude D. Pepper Center (mPI: Magaziner/Katzel/Ryan)Total Sub-Award Direct Costs: $49,136 |
| 2021 - 2026 | Site PI, 2.5% Effort*Validation of Early Prognostic Data for Recovery Outcomes after Stroke for Future, Higher Yield Trials (VERIFY)* NIH U01 NS120910 (mPI Khatri/Cramer/Vagal/Stinear)Total Direct Costs: $3,411,931 |

**Completed Grants**

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| 2009 – 2010 | PI, Donated time*Kinematic analysis of motor recovery with human adult bone marrow derived somatic cell therapy in a rat model of stroke*Foundation for PM&R, American Academy of Physical Medicine and RehabilitationTotal Direct Costs: $10,000 |
| 2012 – 2016 | Co-I, Donated time*Immunotherapy to improve functional outcome after chronic stroke in the aged*. VA Office of Research and Development. Rehabilitation R&D Grant (PI Kartje)Total Amount: $1,101,500.00 |

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| 2014 – 2015 | PI, Donated time*Effects of Mechanical Stretch on AAV-Mediated Gene Transfer in Cultured Skeletal Muscle*Stolov Foundation Grant, University of Washington Medical CenterTotal Direct Costs: $5,000 |
| 2016 – 2020 | Co-I, 5% Effort*Passive-Active Arm Motor and Sensory Rehabilitation Post Stroke*NIDILRR Disability and Rehabilitation Research Project (H133A140065)Total Costs: $1,499,227 |
| 2018 – 2020 | Sub-Award PI, 75% Effort*Predicting Rehabilitation Potential for the Upper Extremity after Stroke.*Neurorehabilitation and Restorative Neuroscience Training Network, National Center for Medical Rehabilitation Research, NIH/NICHD (K12HD093427) Total Direct Costs: $3,861,000 |

**Submitted Grants**

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| 2022 - 2027 | Co-I, 8% Effort *Robot-Aided Diagnosis, Passive-Active Arm Motor and Sensory Rehabilitation Post Stroke*DOD (FOA# W81XWH-21-TBIPHRP-TRA)Total Direct Costs: $3,921,084 |

**Unfunded Grants**

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| --- | --- |
| 2021 – 2025 | PI, 75% Effort*Gene Expression Profiling of Motor System Recovery after Stroke*. NIH/NINDS (K23)Total Direct Costs: $701,326Impact Score 44 |
| 2022 – 2026 | PI, 75% Effort*Gene Expression Profiling of Motor System Recovery in Ischemic Stroke*.NIH/NINDS (K23)Total Direct Costs: $707,033Impact Score 48 (Revision in process for February 2023) |
| 2022 - 2027 | Co-I, 25% Effort *Clinical and molecular studies to optimize the dose and timing of rehabilitation therapy after stroke*NIH/NINDS (R01)Total Direct Costs: $3,921,084Impact Score 46, Percentile 47 (Revision in process for February 2023) |

**PUBLICATIONS** **(note maiden name Gravenhorst)**

**Peer-Reviewed Journal Articles**

1. Giuffrida, C, Newton, L, O’Neil, K, Posse, C, Kim, SB, **Gravenhorst**, RM, Heilman, KM, & Cauraugh, J (2005). *Stroke Consequences on Movement Control of the “Unaffected” Upper Limb*. Neurorehabilitation and Neural Repair, 2005;19(4), E22.
2. **Gravenhorst** RM, Bareither ML (2006). *A method for teaching the osteology of irregular bones.* HAPS Educator, Spring 2006: 15 - 16.
3. Giuffrida, C., Kavois, M., LaGrant, M., & **Gravenhorst,** RM. (2006). *The Effects of a Pharmacologic Intervention (Botulinum Toxin Type A) and Occupational Therapy on Tone and Upper-Limb Function in Adults with Stroke: A Systematic Review*. Neurorehabilitation and Neural Repair, 2006;20(4), E22.
4. **Gravenhorst** RM & Walter, CB (2007). *Apraxia and motor control: linking theory and methods across two complementary research domains*. Motor Control, 11(4): 374-405.
5. **Gravenhorst** RM (2007). *Student learning styles and academic performance in a non-traditional anatomy course*. Journal of Dance Education, 7(2): 38-46.
6. Golomer EM, **Gravenhorst** RM, Toussaint Y (2009). *Influence of vision and motor imagery styles on equilibrium control during whole-body rotations*. Somatosensory and Motor Research. 26 (4): 105-110.
7. **Gravenhorst** RM & Walter, CB (2009). *Visuomotor transformation in movement imitation: examining predictions based on models of apraxia and motor control*. Brain and Cognition Nov;71(2):118-28.
8. **Braun**, RG, Andrews, EM, Kartje GL (2012). *Kinematic analysis of motor recovery with human adult bone marrow-derived somatic cell therapy in a rat model of stroke*. Neurorehabilitation and Neural Repair. Sept; 26: 898-906.
9. **Braun** RG, Wang Z, Mack DL, Childers MK (2014). *Gene therapy for inherited muscle diseases: where genetics meets rehabilitation medicine*. American Journal of Physical Medicine and Rehabilitation. 2014 Nov; 93 (11 Suppl 3): S97-107
10. **Braun**, RG., Kittner, SJ, Ryan, K. A., & Cole, J. W. (2020). *Effects of the BDNF Val66Met polymorphism on functional status and disability in young stroke patients*. PloS one, 15(12), e0237033. https://doi.org/10.1371/journal.pone.0237033
11. de Havenon, A., Tirschwell, DL, Heitsch, L, Cramer, SC, **Braun,** RG, Cole, JW, Reddy, V, Majersik, JJ, Lindgren, AG, Worrall, BB (2020). *Variability of the modified Rankin scale score between day 90 and 1 year after ischemic stroke*. Neurology: Clinical Practice.
12. **Braun** RG, Wittenberg GF (2021). *Motor Recovery: How Rehabilitation Techniques and Technologies Can Enhance Recovery and Neuroplasticity* (2021). Semin Neurol. 2021 Apr;41(2):167-176.
13. Lindgren AG, **Braun** RG, Juhl Majersik J, Clatworthy P, Mainali S, Derdeyn CP, Maguire J, Jern C, et al. on behalf of the International Stroke Genetics Consortium (2021). *International Stroke Genetics Consortium Recommendations for Studies of Genetics of Stroke Outcome and Recovery*. Int J Stroke. 2021 Apr 26:17474930211007288. doi: 10.1177/17474930211007288. PMID: 33739214.
14. **Braun** RG, Heitsch L, Cole JW, Lindgren AG, de Havenon A, Dude JA, Lohse KR, Cramer SC, Worrall BB; GPAS Collaboration, Phenotyping Core (2021). *Domain-Specific Outcomes for Stroke Clinical Trials: What the Modified Rankin Isn't Ranking*. Neurology. 2021 Aug 24;97(8):367-377.
15. Zhang C, Huang MZ, Kehs GJ, **Braun** RG, Cole JW, Zhang LQ. *Intensive In-Bed Sensorimotor Rehabilitation of Early Subacute Stroke Survivors with Severe Hemiplegia Using a Wearable Robot.* IEEE Transactions on Neural Systems and Rehabilitation Engineering, vol. 29, pp. 2252-2259, 2021, doi: 10.1109/TNSRE.2021.3121204.
16. Krishnagopal S, Lohse KR, **Braun,** RG\* (2022) *Stroke recovery phenotyping through network trajectory approaches and graph neural networks*. Brain Informatics 9, 13 (2022). PMCID: 9206968
\* indicates senior author status
17. de Havenon A, Heitsch L, Sunmonu A, **Braun** RG, Lohse KR, Cole JW, Mistry E, Lindgren A, Worrall BB, Cramer SC (2021). *Accurate Prediction of Persistent Upper Extremity Impairment in Patients with Ischemic Stroke*. Arch Phys Med Rehabil. 2021 Nov 20: S0003-9993(21)01574-4. doi: 10.1016/j.apmr.2021.10.023. PMID: 34813742.
18. **Braun**, RG, Lai, T, Wright, MA. (2022). *Best-practices in poststroke rehabilitation from team-based care to prognostication.* Practical Neurology. 2022 Jan: 45-53.
19. de Havenon A, Bangad A, Skolaris L, Aldridge C, **Braun** RG, Cole JW, Cramer SC, Lindgren A, Sunmonu A, Worrall BB, Lohse KR. (2022). Understanding Patterns of Missingness in Acute Ischemic Stroke trials: An Analysis of Pooled Participant Follow-up Data. Stroke (accepted).
20. **Braun**, RG ; Lohse KR, Krishnagopal, S, Aldridge, C, DeHavenon, A, Lindgren AL, Cramer SC, Worrall BB. *Genome-Wide Association Study of Motor Recovery During the First Two Years Post-stroke.* (Submitted, in review for *Neurology* as of 12/12/2022).

**Proffered Communications**

**Local:**

1. **Gravenhorst**, RM (2003). *Lateral dissection of the left hemisphere and basal ganglia*. Human Anatomy and Physiology Society Regional Meeting; Chicago, IL.
2. **Gravenhorst**, RM (2004). *Behavioral and biological influences in cortical plasticity*. University of Illinois at Chicago Laboratory of Integrative Neuroscience; Chicago, IL.
3. **Gravenhorst**, RM (2008). *Cognitive mechanisms of visuomotor transformation in movement imitation: examining predictions based on models of apraxia and motor control*. Rush University Medical Center, Department of Occupational Therapy Lecture Series; Chicago, IL.
4. **Braun,** RG (2017). *What Predicts Rehabilitation Potential*. University of Maryland Department of Neurology Grand Rounds; Baltimore, MD.
5. **Braun,** RG (2020).*Principles of CNS Plasticity for Neurorehabilitation.*University of Maryland Department of Neurology Annual Town & Gown; Baltimore, MD.
6. **Braun**, RG (2020). *Gene Expression Profiling to Align Human and Animal Recovery Timelines After Stroke*. Georgetown University Neuroplasticity Seminar Series; Washington, DC.
7. **Braun**, RG (2022). *Intensive Early Rehabilitation for Stroke Recovery – When, Why, and for Whom?* University of Maryland Department of Physical Therapy Continuing Education Program; Baltimore, MD.

**National:**

1. Giuffrida C, Newton L, O’Neil K., Posse C, Kim SB, **Gravenhorst** RM, Heilman K and Cauraugh J. (2005). *Stroke consequences on movement control of the “unaffected” upper limb.* American Congress of Rehabilitation Medicine/American Society of Neurorehabilitation Joint Conference; Chicago, IL.
2. Kavois M, La Grant M, Giuffrida CG, **Gravenhorst**, RM (2006). *Effects of botulinum toxin A and occupational therapy on tone and arm function in adults with stroke: A systematic review.* American Congress of Rehabilitation Medicine Conference; Boston, MA.
3. Giuffrida C, Newton L, O’Neil K, Posse C, Kim SB, **Gravenhorst** RM, Heilman K. and Cauraugh J. (2006). *Stroke consequences on movement planning and control of the “unaffected” upper limb.* North American Society of Physical, Sport, and Psychological Activity Conference; Denver, CO.
4. Bareither, ML & **Gravenhorst**, RM (2007). *Improving visual display of anatomical structures in the human gross anatomy laboratory.* Human Anatomy and Physiology Society Regional Meeting; San Diego, CA.
5. **Gravenhorst,** RM and Giuffrida, CG (2009). *Cognitive mechanisms of visuomotor transformation in movement imitation following right hemisphere stroke*.American Congress of Rehabilitation Medicine/American Society of Neurorehabilitation Joint Conference; Seattle, WA.
6. **Braun,** RG, Andrews, EM, Kartje GL (2011).*Kinematic analysis of motor recovery with human adult bone marrow derived somatic cell therapy in a rat model of stroke.* American Academy of Physical Medicine & Rehabilitation Annual Assembly; Orlando, FL.
7. **Braun,** RG, Mack, DL, Ware H, Hauschka S, Childers, MK (2014). *Examining the Effects of Stretch on AAV-Mediated Gene Therapy in Cultured Human Skeletal Muscle*. 3rd Annual Symposium on Regenerative Rehabilitation; San Francisco, CA.
8. So, C, **Braun,** RG (2017). *Concurrent Symptoms of Benign Paroxysmal Positional Vertigo and Cerebellar Infarct: A Case Report*. American Academy of Physical Medicine and Rehabilitation, Denver, CO.
9. **Braun** RG; Byblow WD; Smith MC, Barber PA; Stinear, CM (2018). *Does the relationship of impairment to function differ in stroke patients with excellent vs. limited upper-extremity motor outcomes?* Progress in Motor Control, State College, PA.
10. **Braun,** RG (2018).*Predicting Rehabilitation Potential after Stroke*. American Society for Neurorehabilitation; San Diego, CA.
11. Manfredo A, **Braun** RG (2019).*Effects of a new Physical Medicine and Rehabilitation (PM&R) Consult Service.* American Congress of Rehabilitation Medicine, Chicago, IL.
12. **Braun**, RG; Lohse, KR; de Havenon A; Dude, JA; Cole, JW; Lindgren, AL; Cramer, SC; Worrall, BB. (2022) *Differential Effects of Visual Field Deficits and Hemineglect in Stroke Recovery.* American Academy of Physical Medicine and Rehabilitation, New Orleans, LA.

**International:**

1. **Gravenhorst**, RM (2002). *The role of task concept in the performance of new interlimb coordination patterns*. Laboratory Lecture Series, Université Paris V La Sorbonne; Paris, France.
2. Giuffrida CG, Posse C, Kim SB, **Gravenhorst** RM, Cauraugh, J (2006). *Optimizing performance with aging*. World Federation of Occupational Therapists 14th World Congress; Sydney, Australia.
3. **Gravenhorst**, RM, Andrews, EM, Kartje GL (2009). *Kinematic analysis of motor recovery with human adult bone marrow derived stem cell treatment in a rodent model of stroke*. 2009 Symposium, International Society for Physical Rehabilitation Medicine; Istanbul, Turkey.
4. **Braun,** RG & Giuffrida, CG (2010). *Effects of Vision and Task Complexity on Motor Performance of the Ipsilesional Arm in a Left Hemisphere Stroke Patient versus Controls*. American Congress of Rehabilitation Medicine/American Society of Neurorehabilitation Joint Conference; Montreal, Canada.
5. **Braun,** RG (2019)**.** *Predicting Post-stroke Rehabilitation Potential for the Upper Extremity*. Association of Academic Physiatrists; San Juan, Puerto Rico.
6. **Braun** RG, Kittner SJ, Ryan KA, Cole JW (2019). *Effects of the BDNF Val66Met Polymorphism on Acute Stage Measures of Function in Young Stroke Patients.* International Stroke Genetics Consortium; St. Louis, MO.
7. **Braun** RG, Edwardson MA, Xu H (2021). *Gene Expression Profiling to Define Recovery Timelines After Stroke*. International Stroke Genetics Consortium; Lund, Sweden (Virtual Format)
8. De Havenon A, **Braun** RG, Worrall BB, Sunmonu A, Lindgren A, Cole JW, Lohse KR, Broderick J, Cramer SC (2022). *Quality of Life Trajectories in The Year After Large Vessel Occlusion Stroke and Their Association With 90-day Functional Outcome.* International Stroke Conference, New Orleans, LA.
9. **Braun** RG, Heitsch L, Sunmonu A, Cole JW, Lindgren A, de Havenon, A, Lohse K, Cramer SC, Worrall, BB.(2022)**.** *Enhancing Stroke Trial Efficiency Using NIHSS Scores to Predict Persistence of Treatable Deficits*. International Stroke Conference, New Orleans, LA.
10. Aldridge, CA, **Braun**, RG (2022). *A New Approach to Stoke Recovery Phenotyping for GWAS with Trajectory Profile Clustering*. International Stroke Genetics Consortium; Bordeaux, France.
11. **Braun**, RG. *Update from the GPAS Phenotyping Core (2022).* International Stroke Genetics Consortium; Bordeaux, France.