

DIVISION OF BIOKINESIOLOGY & PHYSICAL THERAPY  
UNIVERSITY OF SOUTHERN CALIFORNIA

CURRICULUM VITAE

*Carolee J. Winstein, Ph.D., P.T. FAPTA, FAHA, FNAK, FASNR*

## I. Professional Information

### University address

Division of Biokinesiology and Physical Therapy  
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### Education

- 1989 Postdoctoral Fellow, Behavioral Neuroscience  
University of Wisconsin, Madison, WI
- 1988 Ph.D., Kinesiology  
University of California, Los Angeles, CA
- 1984 M.S., Physical Therapy  
University of Southern California, Los Angeles, CA
- 1972 B.A., Physical Education/Psychology  
University of California, Los Angeles, CA
- 1973 B.S., Cert., Physical Therapy  
University of California, San Francisco, CA

## II. Academic Appointments & Administrative Positions

- 2015-2019 Member of the NIH Musculoskeletal Rehabilitation (MRS) Study Section
- 2017-present Joint Appointment, Professor, Department of Neurology, Keck School of Medicine, University of Southern California
- 2016-2020 Chair, Research Advancement Committee, Division of Biokinesiology and Physical Therapy, USC
- 2014-2016 Sir Walter Murdoch Distinguished Collaborator-Adjunct Professor  
Murdoch University's School of Psychology and Exercise Science, Perth,  
Western Australia
- 2007-2011 Director of Research  
Division of Biokinesiology and Physical Therapy, USC

2005- Present	Professor, Biokinesiology and Physical Therapy University of Southern California, Los Angeles, CA
2006	Visiting Scholar, Department of Neurology University of California, Irvine, CA; (Sponsor: Steve Cramer)
2001-2017	Joint Appointment, Associate Professor Department of Neurology, Keck School of Medicine, University of Southern California, Los Angeles, CA
1998	Visiting Scholar, Department of Psychology, University of Birmingham, UK (Sponsor: Alan Wing)
1998-2020	Member, Interdisciplinary Neuroscience Graduate Program (NGP) University of Southern California, Los Angeles, CA
1996-2004	Associate Professor, Biokinesiology and Physical Therapy
1990-1996	Assistant Professor, Biokinesiology and Physical Therapy University of Southern California, Los Angeles, CA
1990-present	Director, Motor Behavior and Neurorehabilitation Laboratory University of Southern California, Los Angeles, CA
1991-2000	Joint Appointment, Assistant Professor of Exercise Science University of Southern California, Los Angeles, CA

### **Other Previous Employment**

1988-1990	Postdoctoral Fellow Waisman Center, Speech and Motor Control Laboratories University of Wisconsin, Madison, WI
1985-1987	Postgraduate Research Associate Department of Kinesiology University of California, Los Angeles, CA
1983-1985	Postgraduate Teaching Assistant Department of Kinesiology University of California, Los Angeles, CA
1983-1985	Private Physical Therapy Practitioner and Consultant (Part-time) Greater Los Angeles Basin, CA
1983	Staff Physical Therapist Westside Home Health Services Los Angeles, CA
1980-1982	Staff Physical Therapist (Part-time) Mercy Medical Center, Santa Ana, CA

1981	Adjunct Instructor Physical Therapy Department University of California, Irvine, CA
1982	Adjunct Instructor Department of Physical Therapy University of Southern California, Los Angeles, CA
1978-1982	Physical Therapy Clinical Instructor Rancho Los Amigos Medical Center, Downey, CA
1976-1977	Basic Grade Physiotherapist Kings College Hospital, London, UK
1973-1976	Staff Physical Therapist Rancho Los Amigos Medical Center, Downey, CA

### **Honors, Awards & Fellowships**

2018	Elected Fellow of the American Society of Neurorehabilitation, FASNR
2018	2018 John P. Maley Award for outstanding leadership in research over a sustained period of time from the Section on Research, APTA. Feb 23 <sup>rd</sup> , 2018, Combined Sections Meeting, New Orleans, LA.
2017	Elected as an active fellow of the National Academy of Kinesiology, FNAK (official induction, Sept 2018)
2016	Annual University of Nevada, Las Vegas, Department of Physical Therapy Distinguished Lecturer for 2016
2016	Elected Fellow of the American Heart Association, FAHA
2014	Kenneth Viste, Jr., MD Memorial Award, American Society of Neurorehabilitation
2014	New Horizon's Lecturer and Commencement Address, Arcadia University, Glenside, PA
2012	Inaugural Robert Lamb Distinguished Lecture, Physical Therapy, Virginia Commonwealth University, Richmond VA. (Sept 21)
2012	Second Anne Shumway-Cook Lectureship: Translating Neurorehabilitation Research into Practice Combined Sections Meeting, Chicago, Ill (February 9)
2009	40 <sup>th</sup> Mary McMillan Lecture Award American Physical Therapy Association (June 11), Baltimore, MD
2008	Irma Ruebling Distinguished Speaker for 2008 The Saint Louis University, Department of Physical Therapy (March 27)

- 2007                    Second Annual Leaders in Physical Therapy Series  
The Ohio State University, School of Allied Medical Professions (May 2)
- 2006                    Sixth Annual G. Maureen Rodgers Vision for Physical Therapy Lecture  
Rancho Los Amigos National Rehabilitation Center (November 7)
- 2006                    Marian Williams Award for Research in Physical Therapy  
American Physical Therapy Association (June)
- 2006                    Senior Scholar Lecturer  
Motor Control and Learning Program for the North American Society for the  
Psychology of Sport and Physical Activity (NASPSPA) (June 1-3)
- 2006                    John H. P. Maley Lecture award  
American Physical Therapy Association (APTA) (June 23)
- 2006                    Dr. Harry Lyman Hooker Distinguished Visiting Scholar Lecture  
McMaster University, Ontario, Canada (May)
- 2003                    Elected, Catherine Worthingham Fellow of the American Physical Therapy  
Association (FAPTA)
- 1998                    Research Award, Neurology Section  
American Physical Therapy Association (\$1000 donated)
- 1992                    Eugene Michels New Investigator Award  
American Physical Therapy Association (\$1000)
- 1991                    Faculty Publication Award  
California Chapter  
American Physical Therapy Association
- 1986                    Cubberly/Hyde Scholarship Award  
Department of Kinesiology,  
University of California, Los Angeles, CA
- 1985, 1986            Research Conference Travel Award  
Graduate Division  
University of California, Los Angeles, CA
- 1983, 1984            Mabel Wilson Richards Scholarship Award  
Graduate Division  
University of California, Los Angeles, CA
- 1982                    Excellence in Clinical Teaching  
Rancho Los Amigos Medical Center
- 1980                    Educational Scholarship Award  
County of Los Angeles,  
Los Angeles, CA

1980, 1978 Outstanding Clinical Preceptor  
University of Southern California  
Los Angeles, CA

### Licenses and Certification:

Physical Therapist, California registration # 6612

## II. Scholarly Activity

### Grants received or Consultant/Collaborator role

- 2022-2024 DOD OP210027: Enhancing motor function in individuals with lower limb amputation through peer-based balance and fall recovery skill training. (Szu-Ping Lee, PI; Winstein Consultant: serve to review the design and assessment of neurobehavioral outcomes (motor performance, self-efficacy, growth mindset, and EEG).
- 2021-2022 NMR4 Functional Connectivity in the Upper Limb for Individuals Post-Stroke. Mary Ellen Stoykov, PI. Monica Perez, mentor. Winstein role: Consultant, 16 hrs at \$62.50/hr = \$1000 (Sept 15, 2021-June, 2022)
- 2021-2022 NIH/NICHD R41 HD104296 (STTR): MiGo: Wearable sensors that combine actionable data with a behavioral intervention to improve function after stroke. (Rowe, PI, small business, \$256,580; Winstein, PI subcontract \$153,948, 1.20 calendar effort); funding August 1, 2021-July 31, 2022.
- 2021-2026 NIH/NIA K01 AG073467-01: Evaluating cognitive impairment as a moderator of locomotor learning in older adults post-stroke. (Keech, PI; Winstein, Collaborator)
- 2021-2022 NIH/NICHD R03 HD104217: A novel, comprehensive approach to gait rehabilitation post-stroke. (Leech, PI; \$330,000; Winstein, Co-I, 0.24 calendar effort)
- 2021-2022 Foundation for Physical Therapy, Magistro Family Foundation Research Grant: A novel, comprehensive approach to gait rehabilitation post-stroke. (Leech, PI; \$100,00; Winstein Co-I, 0.24 calendar effort)
- 2021-2022 SC CTSI Voucher, Effectiveness of an online mindfulness intervention for stroke survivors and their caregivers: A phase II pragmatic clinical trial (Winstein, PI), \$2990.
- 2020-2022 NIH/NINDS 1R21 NS120274: Fast training promotes recovery of arm movements post-stroke via cerebellar-mediated anticipatory feedforward control. (Schweighofer PI; \$422,417; Winstein Co-I, 0.40 calendar effort)
- 2020-2025 NIH/NINDS/NCMRR 1 R01 NS115845: Effects of global brain health on sensorimotor recovery after stroke (Liew, PI, \$3,875,664; Winstein Co-I, 0.36 calendar effort)
- 2019-2021 SC CTSI Voucher, Monitoring physical activity in community-dwelling stroke survivors: an ecological study (Winstein, PI), \$3000. [NCE due to COVID delays]
- 2019-2022 NINDS R21 N113613: Functional reorganization of reticulospinal drive in hemiparetic stroke (Valero-Cuevas PI \$453,750; Winstein, Co-I, 0.6 calendar effort) NCE

- 2018-2023 NICHD R01 HD059783: Predicting Ipsilesional Deficits in Stroke with Dynamic Dominance (Sainburg, Winstein, Multiple PI, 1.20 calendar effort)
- 2019-2021 Academy of Pediatric Physical Therapy: Understanding selective motor control of infants at high risk for cerebral palsy. (Sargent PI; Winstein Co-I, 0.30 calendar effort) NCE
- 2019-2021 Foundation for Physical Therapy 010918-00001: Quantifying Selective Motor Control of Infants at High Risk for Cerebral Palsy. (Sargent PI; Winstein Co-I, 0.30 calendar effort) NCE
- 2018-2019 R13 NIH/NICHD Conference Grant. American Society of Neurorehabilitation (ASNR): 2018 Annual Scientific Meeting, 10K awarded (Winstein, PI).
- 2017-2019 R56 NS 100528 NIH/NINDS Optimizing Sensorimotor Training Post-Stroke (Schweighofer PI, Winstein, Co-I, 0.50 calendar % effort)
- 2017-2017 Zumberge Small Grant (internal) 10K awarded for *Brain and Behavioral Correlates of Intrinsic Motivation during Skill learning* (Winstein, PI, Beroukhim-Kay, PhD Student)
- 2017-2019 AHA AWRP Summer 2016 Innovative Research Grant. Tesla-Stroke: Transcutaneous Electrical Stimulation for Locomotor Ability after Stroke. (Finley, PI; Winstein, Co-I, 2% effort)
- 2017-2018 R13 NIH/NICHD Conference Grant. American Society of Neurorehabilitation (ASNR): 2017 Annual Scientific Meeting, 10K awarded (Winstein, PI).
- 2016-2017 R13 NIH/NINDS Conference Grant. American Society of Neurorehabilitation (ASNR): 2016 Annual Scientific Meeting, 10K awarded (Winstein, PI).
- 2015–2022 NIH/NIA Effects of Physical Activity on Brain Function and Network Connectivity: A Randomized-Controlled Trial in MCI. (Pa, Judy PI, Award ID: AG46928-01A1, Winstein, Investigator, 4% effort) NCE
- 2015-2016 Coulter Translational Research Partnership Program. Schweighofer PI, Winstein, Clinical PI (\$72,000 including 20% indirect costs). ARM-MOV: A system for retraining arm movements.
- 2014-2016 MedHab: StepRite Evaluation (NCT02270684). Powers PI, Winstein Co-PI (\$161,419)
- 2014-2016 Reach Bionics, Inc. (NCT02358915). Peri-auricular muscles voluntary control training. Baker PI, Winstein Co-I (\$68,972)
- 2012-2013 CTSI Multidisciplinary: Developing Point-of-Care Mobility (PoCM) Monitoring System Technologies. Winstein, PI, Blanco, Co-PI (\$76,140)
- 2013-2014 USC Collaboration Fund: Center for Interactive Media Technologies in Health. Winstein, Gotsis, Blanco, Lasch Co-Directors (\$30,000) renewable for up to 3 years.
- 2011-2017 R01 HD065438 NIH/NICHD, Optimizing Dosage of Rehabilitation After Stroke, Multiple Multiple PIs: Schweighofer N. (Primary)/Winstein C.J. (\$1.7 Million) [NCE]

- 2011-2014 CADF/AZIZ-ZADEH/2012, Charles A. Dana Foundation. Modulating Motor Behavior by Action Observation and Imitation: Implications for Stroke Rehabilitation, Aziz-Zadeh PI, Winstein, Co-I, (\$78,417 annual directs)
- 2010-2011 NIH/NICHHD (R01 HD060630), Functional Adaptation of Neural Circuits After Exercise PI: Holschneider, Co-I: Winstein (\$1.6 million) [subcontract terminated because of budget shortfall in Neurology]
- 2010-2013 American Heart Association, Scientist Development Grant, The Mirror Neuron System (MNS): A Neural Substrate for Methods in Stroke Rehabilitation, PI: Aziz-Zadeh L; Winstein C.J., Co-I, (\$230,000)
- 2010-2012 NIH/NICHHD (R03), The Mirror Neuron System and Action Observation after Stroke Affecting Cortical Motor Regions. PI: Aziz-Zadeh; Winstein C.J. Co-I, (\$162,000)
- 2008-2014 DoE/NIDRR (H133E080024), Optimizing Participation Through Technologies (OPTT) - RERC for Successful Aging with Disability, Winstein C.J. Project Director/PI, Phil Requejo, Co-Director (\$4,750,000)
- 2008-2016 NIH/NINDS/NICHHD, Interdisciplinary Comprehensive Arm Rehab Evaluation (ICARE) Stroke Initiative, a phase III multi-site randomized control trial (U01NS056256), Multiple PIs: Winstein, C.J. (Primary), Wolf, S.W, Dromerick, A., (\$12,274,744).
- 2007-2011 NSF, Human Robot Interaction: Personalized Assistive Human-Robot Interaction: Validation in Socially-Assisted Post-Stroke Rehabilitation (IIS-0713697). Mataric, M. PI, Winstein, C.J. Co-I (\$449,999)
- 2006-2008 Northstar Neuroscience, Inc. Multi-site Safety and Effectiveness of Cortical Stimulation in the Treatment of Upper Extremity Hemiparesis, Winstein, C.J. (site PI), \$500,000/yr
- 2005-2007 NIH/NICHHD, Task Practice Schedules to Enhance Recovery after Stroke (Schweighofer, Winstein, Co-PI) \$50,000
- 2005-2006 NIH STTR Innovative Technologies for Enhancing Function for Rehabilitation, CI Therapy and Novel Virtual Environments, Winstein, C.J. (PI), Tillis, J. (Co-PI) (small business) \$103,000
- 2004-2009 NIH P20 Exploratory Centers for Interdisciplinary Research New Directions for Stroke Rehabilitation, PI: McNeill, Thomas, Winstein, C.J. (Co-PI), \$1,924,156 (includes a no-cost extension)
- 2004-2005 NIH R13 Conference Grant: III STEP, Summer Institute on Translating Evidence Into Practice: Linking Movement Science and Intervention (July 15-21, 2005). Winstein, C.J. (PI). \$13,000
- 2003-2006 Foundation for Physical Therapy (FPT) "PTClinResNet: A Clinical Research Network to Evaluate the Efficacy of Physical Therapist Practice", Winstein, C.J. (PI), \$1,500,000.
- 2002-2007 NIH/NINDS Bioengineering Research Partnership. (Project: Augmentation of Constraint Induced Therapy Following Stroke, Winstein, Co-PI) BION Treatment of Neuromuscular Dysfunction, R01 NS041807-01A1 (Loeb, PI) \$100,000/yr

- 2002-2006 National Institutes of Health (R01-NINDS)-Winstein, C.J. (PI). "Brain and Behavior Correlates of Arm Rehabilitation". \$1,092,733
- 2002-2002 Foundation for Physical Therapy. Planning Grant for proposal to establish a clinical research network in physical therapy. Winstein, C.J (PI) \$5000
- 2000-2003 Co-PI, "The Virtual Trainer", NSF ITR/HCP (\$150,000/year). [Co-PI, Schaal]
- 2000-2006 National Institutes of Health (NICHD-USC subcontract to Emory University-Wolf, SW-PI) USC Subcontract Principal Investigator-Winstein, C.J., "Extremity Constraint-Induced Therapy Evaluation", (subcontract \$854,430)
- 2000-2001 Medical Faculty Women's Association (MFWA) "An investigation of implicit learning capability in adults with unilateral sensorimotor area damage", \$3000
- 1999-2004 State of California—Alzheimer's Research Center of California-Contract (ARCC), Principal Investigator-Winstein, C.J. for Research Project, "Procedural learning and functional decline in AD", \$16,000/yr (with Lon Schneider, USC Psychiatry)
- 1999-2001 National Institutes of Health (R03-NICHD)-Winstein, C.J. (PI) "Recovery and Rehabilitation of Arm Use after Stroke" \$152,115
- 1999-2000 Pfizer Pharmaceutical-Winstein, C.J/Co-PI "Effectiveness of Aricept on Sensorimotor Function in Alzheimer's Disease (AD)" \$97,500 (with Lipson)
- 1998-1999 Interdisciplinary ZRIF Award-Winstein, C.J/Co-PI "Contribution of the upper limbs to dynamic posture control in post-stroke hemiparetic adults". \$10,000 (with Chui, Powers, & Schaal)
- 1993-1995 Research Grant-Winstein, C.J./ Principal Investigator. The Foundation for Physical Therapy. "Deficits in movement-related information processing after stroke: A behavioral and kinematic analysis." \$55,424
- 1992-1993 Zumberge Fellow-Winstein, C.J./Principal Investigator. James H. Zumberge Research Innovation Fund " An examination of hemispheric differences in the control of rapid aiming movements." \$16,000
- 1991-1992 Research Grant-Winstein, C.J./Principal Investigator, Velicki, MR., Co-PI California Chapter, American Physical Therapy Association. "Hemispheric Differences in Motor Response Programming in Post-CVA Subjects." \$2500
- 1991-1992 Equipment Grant-Winstein, C.J./Principal Investigator, Weng, A., Co-PI Baltimore Therapeutic Equipment, \$28,000, MotionSpec Balance Unit "An examination of temporal measures and joint angle responses to platform perturbations during bipedal stance in normal and post-stroke subjects. \$1400
- 1991-1995 Research Grant-Merians, A./Principal Investigator, Winstein, C.J., Co-PI University of Medicine and Dentistry of New Jersey, Foundation "The role of feedback for enhancing motor skill learning in geriatric and neurologically impaired individuals". \$24,940



1990 Start-up Funds, University of Southern California, Department of Physical Therapy.  
\$80,000

### Publications in refereed journals

ORCID <https://orcid.org/0000-0001-9789-4626>

1. Ballester BR, **Winstein CJ**, Schweighofer N. (accepted, 02/22). Virtuous and vicious cycles of arm use and function post-stroke. Perspective, Front. Neurology: Neurorehabilitation.
2. Kim S, Han CE, Kim B, **Winstein CJ**, Schweighofer N. (ePub, 2021). Effort, success, and side of lesion determine arm choice chronic stroke survivors with mild-to-moderate impairment. J. Neurophys. 08 DEC 2021 <https://doi.org/10.1152/jn.00532.2020>
3. Ito KL, Kim B, Liu J, Soekadar SR, **Winstein C**, Yu C, Cramer SC, Schweighofer N, Liew S-L (2021). Corticospinal tract lesion load originating from both ventral premotor and primary motor cortices are associated with post-stroke motor severity. Neurorehabilitation and Neural Repair. <https://doi.org/10.1177/15459683211068441>
4. Liew S-L, ....Thompson PM, on behalf of the ENIGMA Stroke Recovery working Group (2021). Smaller spared subcortical nuclei are associated with worse post-stroke sensorimotor outcomes in 28 cohorts worldwide. Brain communications, <https://doi.org/10.1093/braincomms/fcab254>
5. Cramer SC, See J, Liu B, Edwardson M, Wang X, Radom-Aizik S, Haddad F, Shahbaba B, Wolf L, Dromerick AW, **Winstein CJ**. (2021), Genetic factors, brain atrophy, and response to rehabilitation therapy after stroke. Neurorehabilitation Neural Repair. <https://doi.org/10.1177/15459683211062899>
6. Hooyman A, Gordon J, **Winstein C**. (2021) Unique behavioral strategies in visuomotor learning: Hope for the non-learner. Human Movement Science. 79, 102858. <https://doi.org/10.1016/j.humov.2021.102858>
7. Torriani-Pasin C, Demers M, Polese J, Bishop L, Wade E, Hempel S, **Winstein C**. (2021). mHealth Technologies used to Capture Walking and Arm Use Behavior in Adult Stroke Survivors: A Scoping Review Beyond Measurement Properties. Disability and Rehabilitation. DOI: 10.1080/09638288.2021.1953623. <https://doi.org/10.1080/09638288.2021.1953623> . Protocol registered in OSF (OSF – <https://osf.io/fqs3d/> ).
8. Kim B, Schweighofer N, Haldar J, Leahy R, **Winstein C**. (2021). Corticospinal Tract Microstructure Predicts Arm Motor Improvements in Chronic Stroke. Journal of Neurologic Physical Therapy, 45 (4), pp. 273-281. <https://doi.org/10.1097/NPT.0000000000000363>
9. Maenza C, Wagstaff DA, Varghese R, **Winstein C**, Good DC, Sainburg RL. (2021). Remedial training of the less-impaired arm in chronic stroke survivors with moderate to severe upper-extremity paresis improves functional independence: A Pilot Study. Front. Hum. Neurosci., 15:645714. <https://doi.org/10.3389/fnhum.2021.645714>
10. Sanchez N, **Winstein CJ**. (2021). Lost in translation: Simple steps in experimental design of neurorehabilitation-based research interventions to promote motor recovery post-stroke. Front. Hum. Neurosci., 20 April 2021. <https://doi.org/10.3389/fnhum.2021.644335>
11. Shih H-JS, **Winstein CJ**, Kulig K (2021). Young adults with recurrent low back pain demonstrate

- altered trunk coordination during gait independent of pain status and attentional demands. *Exp Brain Res*, 2021 April 19. doi: <https://doi.org/10.1007/s00221-021-06106-8>
12. Chen Y-A, Demers, M, Lewthwaite R, Schweighofer N, Monterosso JR, Fisher BE, **Winstein C.** (2021). Novel combination of accelerometry and ecological momentary assessment for post-stroke paretic arm/hand use: Feasibility and Validity. *J.Clin. Med.* 10, 1328. <https://doi.org/10.3390/jcm10061328>
  13. Jayasinghe SAL, Good D, Wagstaff DA, **Winstein C**, Sainburg RL. (2020) Motor deficits in the ipsilesional arm of severely paretic stroke survivors correlate with functional independence in left, but not right hemisphere damage. *Front Hum Neurosci*, 09 December; <https://doi.org/10.3389/fnhum.2020.599220>
  14. Demers M, Martinie O, **Winstein C**, Robert MT. (2020). Active video games and low-cost virtual reality: an ideal therapeutic modality for children with physical disabilities during a global pandemic. *Frontiers Neurology, Neurorehabilitation subsection.* <https://doi.org/10.3389/fneur.2020.601898>
  15. Demers M, **Winstein C.** (2020). A perspective on the use of ecological momentary assessment and intervention to promote stroke recovery and rehabilitation. *Topics in Stroke Rehabilitation.* <https://doi.org/10.1080/10749357.2020.1856557>.
  16. Tsay J, **Winstein C** (2020). Five features to look for in early-phase clinical intervention studies. *Point of View/Directions for Research. Neurorehabilitation and Neural Repair.* <https://doi.org/10.1177/1545968320975439>
  17. Mattke S, Cramer SC, Wang M, Bettger JP, Crockroft KM, Feng W, Jaffee M, Oyesanya TO, Puccio AM, Temkin N, **Winstein C**, Wolf SL, Yochelson MR. (2020). Estimating minimal clinically important differences for two scales in patients with chronic traumatic brain injury. *Current Medical Research and Opinion.* Link: <https://doi.org/10.1080/03007995.2020.1841616>
  18. Geed S, Nelsen MA, Lane CJ, **Winstein CJ**, Wolf SL, Dromerick AW. (2020) Rasch Analysis of UE Fugl-Meyer in the ICARE stroke trial: Effects of rescaling on clinical assessment and measurement of recovering motor control. *Arch Phys Med Rehab.* <https://doi.org/10.1016/j.apmr.2020.08.019>
  19. Varghese R, Kutch J.J., Schweighofer N, **Winstein CJ** (2020). The probability of choosing both hands depends on an interaction between motor capacity and limb-specific control in chronic stroke. *Exp Brain Res.* <https://doi.org/10.1007/s00221-020-05909-5>
  20. Martinez C, Bacon H, Rowe V, Russak D, Fitzgerald E, Woodbury, Wolf SL, **Winstein C.** (2020). A Reaching Performance Scale for Two Wolf Motor Function Test Items. *Arch Phys Med Rehab.* <https://doi.org/10.1016/j.apmr.2020.05.003>
  21. Chung Y-C, Lewthwaite R, **Winstein CJ**, Monterosso JR, Fisher BE. (2020). Expectancy and affective response to challenging balance practice conditions in individuals with Parkinson's disease. *European J Neurosci.* 2020;00:1-11. <https://doi.org/10.1111/ejn.14723>
  22. Rowley MK, **Winstein CJ**, Kulig K. (2020). Persons in remission from recurrent low back pain alter trunk coupling under dual-task interference during a dynamic balance task. *Experimental Brain Research.* 238:957-968, DOI: <https://doi.org/10.1007/s00221-020-05772-4>
  23. Wang, C., **Winstein, C.**, D'Argenio, D. Z., & Schweighofer, N. (2020). The efficiency, efficacy, and

- retention of task practice in chronic stroke. *Neurorehabilitation and Neural Repair*, 34(10), 881-890
24. Buxbaum LJ, Varghese R, Stoll H, **Winstein CJ** (2020). Predictors of Arm Nonuse in Chronic Stroke: A Preliminary Investigation. *Neurorehabil Neural Repair*. 34(6):512-522. <https://doi.org/10.1177/1545968320913554>
  25. Makhoul MP, Pinto EB, Mazzini NA, **Winstein C**, Torriani-Pasin C. (2020). Translation and validation of the stroke self-efficacy questionnaire to a Portuguese version in stroke survivors, *Topics in Stroke Rehabilitation*, 27:6, 462-472, DOI: 10.1080/10749357.2020.1713555
  26. Varghese R, **Winstein C.J.** (2020). Relationship between motor capacity of the contralesional and ipsilesional hand depends on the side of stroke in chronic stroke survivors with mild-to-moderate impairment. *Frontiers in Neurology*, 10:1340. <https://doi.org/10.3389/fneur.2019.01340>.
  27. Kwakkel G, van Wegen EEH, Burridge JH, **Winstein CJ**, van Dokkum LEH, Alt Murphy M, Levin MF, Krakauer JW; ADVISORY group (2019). Standardized Measurement of Quality of Upper Limb Movement After Stroke: Consensus-Based Core Recommendations From the Second Stroke Recovery and Rehabilitation Roundtable. *Neurorehabil Neural Repair*. 2019 Nov;33(11):951-958. doi: 10.1177/1545968319886477. Epub 2019 Oct 29.  
Also published in: *Int J Stroke*. 2019 Oct;14(8):783-791. doi: 10.1177/1747493019873519. Epub 2019 Sep 11. PMID: 31510885
  28. Costa PHV, de Jesus TPD, **Winstein C**, Torriani-Pasin C, Polese JC. (2019). An investigation into the validity and reliability of mHealth devices for counting steps in chronic stroke survivors. *Clin Rehabil*. Dec 18:269215519895796. doi:10.1177/0269215519895796
  29. Maenza C, Good DC, **Winstein CJ**, Wagstaff DA, Sainburg RL. (2019). Functional deficits in the less-impaired arm of stroke survivors depend on hemisphere of damage and extent of paretic arm impairment. *Neurorehabil Neural Repair*. 2019 Sep 20:1545968319875951. <https://doi.org/10.1177/1545968319875951> .
  30. **Winstein CJ**, Kim B, Kim S, Martinez C, Schweighofer N. (2019). Dosage matters: A phase IIb randomized controlled trial of motor therapy in the chronic phase after stroke. *Stroke*. Jun 5:STROKEAHA118023603. <https://doi.org/10.1161/STROKEAHA.118.023603> . [Epub ahead of print]
  31. Chanthaphun S, Heck SL, **Winstein CJ**, Baker L. (2019). Development of a training paradigm for voluntary control of the peri-auricular muscles: A feasibility study. *J Neuroeng Rehabil*. 16:75. <https://doi.org/10.1186/s12984-019-0540-x>
  32. Stewart JC, Lewthwaite R, Rocktashel J, **Winstein CJ**. (2019). Self-efficacy and reach performance in individuals with mild motor impairment due to stroke. *Neurorehabil Neural Repair*. 33:319-328. <https://doi.org/10.1177/1545968319836231> .
  33. Edwardson M, Ding Li, Park C, Lane CJ, Nelsen MA, Wolf SL, **Winstein CJ**, Dromerick AW. (2019). Reduced upper limb recovery in subcortical stroke patients with small prior radiographic stroke. *Front Neurol (section neurorehabilitation)*. 10:454. <https://doi.org/10.3389/fneur.2019.00454>
  34. Kim S, Park H, Han CE, **Winstein C**, Schweighofer, N (2018). Measuring habitual arm use post-stroke with a bilateral time-constrained reaching task. *Front Neurol (section, Stroke)* <https://doi.org/10.3389/fneur.2018.00883> .

35. Fietzer AL, **Winstein CJ**, Kulig K. (2018) Changing one's focus of attention alters the structure of movement variability. *Human Movement Science*. 62: 14-24.
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#### **Invited commentaries, expert opinions and perspectives**

1. **Winstein CJ.** Leading Opinion: The ATTEND trial: An alternative explanation with implications for future recovery and rehabilitation clinical trials. 2017, *Int J Stroke*, 0(0): 1-5. DOI: 10.1177/1747493017743061

2. Ask an Expert: BrainFacts.org, a public information initiative of: the Kavli Foundation, Gatsby, and the Society for Neuroscience (published online 2014). <http://www.brainfacts.org/about-neuroscience/ask-an-expert/articles/2014/does-practice-make-perfect>
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4. **Winstein, CJ.** Commentary. Heiss DG, Shields RK, Yack HJ. (2001) Anticipatory control of vertical lifting force and momentum during the squat lift with expected and unexpected loads. *JOSPT*, 31:708-23 (Discussion 724-9)
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6. **Winstein, CJ.** (1994). Commentary. Pai et al., "Alterations in weight-transfer capabilities in adults with hemiparesis", *Physical Therapy*, 74, 657-658.
7. **Winstein, C.J., & Pohl, P.S.** (1993). Commentary. Dickstein et al., "Reaction and movement times in patients with hemiparesis for unilateral and bilateral elbow flexion". *Physical Therapy*, 73, 383-384.
8. **Winstein, C.J.** (1992). Commentary. Wright & Kemp, "The dual-task methodology and assessing the attentional demands of ambulation with walking devices. *Physical Therapy*, 72, 316-318.
9. **Winstein, C.J. & Knecht, H.G.** (1990). Movement science and its relevance to physical therapy. *Physical Therapy*, 70, 759-762.

#### **Manuscripts in preparation, in revision or submitted to refereed journals or edited volumes**

1. Demers M Pagnini F, Phillips D, Chang B, **Winstein C**, Langer E. (review received 2/22, revision in process). Feasibility of an online Langerian mindfulness program for stroke survivors and caregivers.
2. Zavaliangos-Petropulu A., .... Liew S-L (submitted, 11/3/21 to Stroke; Stroke denied the appeal to consider the revision, paper transferred to JAHA as per recommendation from Stroke, submitted to JAHA 12/22/21), Chronic stroke sensorimotor impairment is related to smaller hippocampal volumes: An ENIGMA analysis.
3. Chen Y-A, Lewthwaite R, Schweighofer N, Monterosso JR, Fisher BE, **Winstein CJ.** (near final version formatted for APMR, second round sent out to co-authors, 02/14/22). The essential role of social context and self-efficacy in daily paretic arm/hand use after stroke: An ecological momentary assessment study with Accelerometry. [reworking the text re: statistical model with inclusion of validity checks; revision as per co-author suggestions]
4. Demers M, Varghese R, **Winstein CJ** (submitted to special research topic, Motor Recovery following Central Neurological Disorders in Humans: Mechanisms and Therapeutic Interventions; *Frontiers in Human Neuroscience: Motor Neuroscience*, 02/08/22). Retrospective exploratory analysis of task-specific effects on brain activity after stroke. Posted on MEDRXIV, 02/14/22. MS ID#: MEDRXIV/2021/260371
5. Beroukhim D, Monterosso J, Lewthwaite R, Kutch J, **Winstein C.** (in prep for *Frontiers in Human Neuroscience*, Special topic: Motor recovery following central neurological disorders in humans: Mechanisms and Therapeutic Interventions; *Frontiers in Human Neuroscience: Motor Neuroscience*).

Brain activation during practice predicts behavioral recall performance of a visuospatial tracking task. *Frontiers in Human Neuroscience?* Manuscript in preparation. Sent draft abstract to topic editors: Silvi Frenkel-Toledo and Tamar Weiss (see positive email response, 01/03/22)

<https://www.frontiersin.org/research-topics/26641/motor-recovery-following-central-neurological-disorders-in-humans-mechanisms-and-therapeutic-interve>

6. Hooyman A, Garbin A, Fisher BE, Kutch J., **Winstein CJ**. (Neuroscience Letters, submitted 01/27/22) Paired associative stimulation applied to the Cortex can increase resting-state functional connectivity: A proof of principle study.
7. Rosales M, **Winstein CJ**. (Submitted as target article; 1/7/21 rejected with request for major rewrite). Understanding contingency learning in infancy through a discovery learning lens. *Invited target article* for JMLD (see response from Editor-in Chief, Daniela Corbetta-Oct 2, 2020)-Submitted 10/20/2020.
8. Bishop L, **Winstein C**. Mind the translation gap! Locomotor rehabilitation after stroke. Lauri submitted to Topics in Stroke Rehab on June 30, 2021. Paper rejected. Lauri working on a reformulation and will send to D&R or another Journal.
9. Janaine Cunha Polese, Pollyana Helena Vieira Costa, Thainá Paula Dias de Jesus, **Carolee Winstein**, Camila Torriani-Pasin. (Submitted, June 2020 to D&R). Validity and Reliability of mHealth Technology for Step Count Estimates in Chronic Stroke Survivors. *Disability and Rehabilitation*. (rejected from D&R, on hold, Camila will revisit this in one month (from 2/26/21) and contact Janaine who had twins 2 months ago and is facing lots of challenges.)
10. Charalambous CC, Espinoza-Wade ER, Cesar GM, Gerger M, Lai Y-H, **Winstein CJ**. (next draft expected, 01/21/22). The decision-making processes of sensorimotor control during skilled stepping actions are governed by both habitual and goal-directed systems in neurotypical adults. Target Journal: *Experimental Brain Research*
11. Szu-Ping Lee, Andrew Sawers, Robert Gregor, Carolee Winstein (in preparation, see revised outline 02/25/21; met with Ping March 16<sup>th</sup> and I sent him some papers to use to flesh out the motor learning section of the paper, he will write the section and send it to me for review). Re-thinking Post-Amputation Rehabilitation in the 21<sup>st</sup> Century: Integrating Prosthetic Technology, Behavior, and Motor Learning Sciences. (Google doc at [https://docs.google.com/document/d/1aO7rtpx2QM45kl1DOHwwXC02mUiwmnjxp\\_dJFZ6m-ho/edit?ts=601218ca](https://docs.google.com/document/d/1aO7rtpx2QM45kl1DOHwwXC02mUiwmnjxp_dJFZ6m-ho/edit?ts=601218ca))

### Publications in referred volumes

1. **Winstein CJ**, Kay DB (2015). Translating the science into practice: shaping rehabilitation practice to enhance recovery after brain damage. Chap 16, *Progress in Brain Research*, Vol. 218, <http://dx.doi.org/10.1016/bs.pbr.2015.01.004>, Elsevier BV.
2. **Winstein, C.J.**, Wolf, S.L. Schweighofer, N. (2015). Task-oriented training to promote upper extremity recovery. In: J. Stein, Harvey RL, Winstein CJ, and Zorowitz RD, Wittenberg, GF. Eds: 2nd Ed. *Stroke Recovery and Rehabilitation*, Demos Medical, New York, New York, pp 320-343
3. Wulf G, Lewthwaite R., **Winstein C.J.** Motor learning and fundamental psychological needs: Implications for stroke rehabilitation. In *Rehabilitation after Stroke (Motorisches Lernen)*. Ed. J.



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4. Wolf S, **Winstein C.J.** "Intensive physical therapeutic approaches to stroke recovery." In Brain Repair After Stroke, ed. S.C. Cramer and R.J. Nudo. Published by Cambridge University Press. Cambridge University Press 2010.
5. Maja J Matarić, Adriana Tapus, and **Carolee Winstein**, and Jon Eriksson, "Socially Assistive Robotics for Stroke and Mild TBI Rehabilitation", in Advanced Technologies in Rehabilitation, A. Gaggioli, E. Keshner, P. Weiss, and G. Riva, eds. Vol. 145, 2009, IOS Press, 249-262.
6. Jung Y, Yeh S-C, McLaughlin M, Rizzo A, **Winstein C** (2008). Three-dimensional game environments for recovery from stroke. In: U. Ritterfeld, Cody M, Vorderer P, Eds: Serious Games: Mechanisms and Effects, Routledge, Taylor and Francis, chapter 24.
7. **Winstein, C.J.** & Wolf, S.L. (2008). Task-oriented training to promote upper extremity recovery. In: J. Stein, Harvey RL, Macko RF, Winstein CJ, and Zorowitz RD, Eds: Stroke Recovery and Rehabilitation, Demos Medical, New York, New York, pp 267-90.
8. **Winstein, C.J.** & Stewart, J.C. (2006). Conditions of task practice for individuals with neurologic impairments. In: M. Selzer, S. Clarke, P. Duncan, L. Cohen, & F.H..Gage (Eds). Text Book of Neural Repair and Rehabilitation. Cambridge University Press,
9. **Winstein, C.J.** & Prettyman, C. (2005). Constraint-induced therapy for functional recovery after brain injury: unraveling the key ingredients and mechanisms. In: M. Baudry, X. Bi, S. Schreiber, Eds; Synaptic Plasticity, Marcel Dekker, Inc., New York.
10. **Winstein, C.J.**, Wing, AM, Whittall, J. (2003) Motor control and learning principles for rehabilitation of upper limb movements after brain injury. In: Grafman J, Robertson I, eds. Plasticity and Rehabilitation, Amsterdam: Elsevier Science BV:77-137. (Handbook of Neuropsychology; 2nd Edition, vol. 9.).
11. Abbs, J.H., & **Winstein, C.J.** (1990). Functional contributions of rapid and automatic sensory-based adjustments to motor output. In: Jeannerod, M.(Ed.): Attention and Performance XIII. London: Lawrence Erlbaum Associates, (pp. 627-652).
12. Meenakshi, B, Mitz, A., & **Winstein, C.J.** (1999). Motor I: Lower Centers. In H.Cohen (Ed.) Neuroscience for Rehabilitation, 2nd Edition, Philadelphia, PA: Lippincott Co.
13. **Winstein, C.J.** & Schmidt, R.A. (1989). Sensorimotor feedback. In Holding, D. (Ed.): Human Skills (pp. 17-47). 2nd edition, Chichester, England: Wiley & Sons.
14. **Winstein, C.J.** & Mitz, A. (1993). Motor systems, Part II: higher motor centers. In H.Cohen (Ed.) Neuroscience for Rehabilitation, Philadelphia, PA: Lippincott Co.
15. Mitz, A., & **Winstein, C.J.** (1993). Motor systems, Part I: muscle, spinal cord, and brainstem. In H.Cohen (Ed.) Neuroscience for Rehabilitation, Philadelphia, PA: Lippincott Co.
16. **Winstein, C.J.** (1987). Motor learning considerations in stroke rehabilitation. In Duncan, P.W. & M.B. Badke (Eds.), Stroke Rehabilitation: The Recovery of Motor Control (pp. 109-134). Chicago, IL: Year Book Medical Pub.

### Publications in non-peer reviewed volumes

1. Bischoff, A, Arbib, MA, **Winstein, C.J.** (1997). Modeling the role of the basal ganglia in a reciprocal aiming task. Proceedings of the Fourth Annual Joint Symposium on Neural Computation, 17 May, USC, Vol 7, 20-27.
2. **Winstein, C.J.** (1991). Designing practice for motor learning: Clinical implications. In Lister, M. (Ed): II Step Contemporary Management of Motor Control Problems. Alexandria, Virginia: Foundation for Physical Therapy.
3. **Winstein, C.J.** (1990). Balance retraining: Does it transfer? In: Duncan, P.W. (Ed.), Balance Forum Proceedings, June 13-15, Nashville, TN, 1989. Alexandria, Virginia: American Physical Therapy Assoc, pp.95-103.
4. Schmidt, R.A., Shapiro, D.C., **Winstein, C.J.**, Young, D.E., & Swinnen, S. (1987). Feedback and motor skill training: relative frequency of KR and summary KR (Tech. Rep. Contract No. MDA903-85-K-0225). Alexandria, VA: U.S. Army Research Institute.
5. Montgomery, J., Gillis M.K., **Winstein, C.J.**, & Parker, K. (1983). Physical therapy management of patients with hemiplegia secondary to cerebrovascular accident. Rancho Los Amigos Medical Center Society for the Psychology of Sport and Physical Activity (NASPSPA), June 10-12, Tuscan, AZ, 2010, Downey, CA: Professional Staff Association.

### Research presented or to be presented at scientific meetings (abstracts)

1. M Demers, R Varghese, **C Winstein** (2021). Task-specific effects on brain activity after stroke. 13<sup>th</sup> World Stroke Congress, Oct 28-29, 2021 held virtually.
2. Demers, M., Pagnini, F., Phillips, D., Chang, B., **Winstein, C.** (2021) Beta-testing of an online mindfulness program designed for stroke survivors and their caregivers during a pandemic. ACRM 98th annual conference, Sept 26-29 held virtually.
3. Demers, M., Rowe, J., Bishop, L., Zondervan, D., **Winstein, C.** (2021) Insights gained from activity monitors for upper limb stroke rehabilitation. ACRM 98th annual conference, Sept 26-29, held virtually
4. Torriani-Pasin, C., Demers, M., Polese, J. C., Bishop, L., Wade, E., Hempel, S., **Winstein, C.** (2021) Measurement properties of mHealth technologies to capture functional movement behaviors in stroke survivors: a scoping review. ACRM 98th annual conference, Sept 26-29, held virtually.
5. Rowe, J., Demers, M., Bishop, L., Zondervan, D., **Winstein, C.** (2021) Validity and usability of a wearable, multi-sensor system for monitoring upper and lower limb activity in chronic stroke survivors in a community setting. American Society of NeuroRehabilitation Virtual Annual Meeting. April 5-9, 2021. [Poster Presentation]
6. Demers, M., Bishop, L., Rowe, J., Zondervan, D., **Winstein, C.** (2021) Wearable multi-sensor system for stroke rehabilitation: validity and usability. Ostrow Dentistry Research Day held virtually. May 26, 2021.
7. Zavaliangos-Petropulu A, Banaj N, Barisano G, Borich MR, Brodtmann A, Buetefisch CM, Charalambous CC, Ciullo V, Conforto AB, Cramer SC, Dacosta- Aguayo R, Feng W, Hayward KS, Hordacre B, Kautz SA, Khlif MS, Kim H, Kuceyeski A, Lin JD, Lo B, Lohse KR, Lotze M, MacIntosh BJ, Mataro M, Mohamed FB, Ramos-Murguialday A, Piras F, Robertson AD, Schweighofer N, Seo NJ, Shiroishi MS, Spalletta G, Thielman GT, Ward NS, **Winstein CJ**, Wolf SL, Wong KA, Jahanshad N, Thompson PM, Liew S-L, ENIGMA Stroke Recovery Working Group (2021) Chronic stroke sensorimotor impairment correlates with spared hippocampal

volume: An ENIGMA Analysis. Accepted to the Organization for Human Brain Mapping Virtual Conference, June 21-26.

8. [Withdrawn by first author] Shih HJS\*, **Winstein CJ**, Kulig K. (2021). Individuals with Recurrent Back Pain Demonstrate Altered Trunk Coordination Independent of Pain and Attentional Demands. American Physical Therapy Association Combined Sections Meeting. Online. Poster.
9. Varghese, R\*, Sainburg RL, Gordon, JE, **Winstein, CJ**. (2019) Temporal coupling is preserved after right but not left hemisphere damage. Poster presented at 1 international research conference and 2 internal research symposia
  - a. 2019 XII Progress in Motor Control, Amsterdam, The Netherlands, Jul 7-10.
  - b. 2019 USC Herman Ostrow School of Dentistry Research Day, Los Angeles, CA, Apr 10
  - c. 2019 USC BKN Jacquelin Perry Research Day, Los Angeles, CA, Apr 18.
10. A Hooyman MS, A. Garbin DPT, B. Fisher PhD, J. Kutch PhD & **C. Winstein** PhD. (2018) Paired Associative Stimulation to Modulate Resting-State Intracortical Connectivity: A Pilot Study. Poster Presentation, American Society of Neurorehabilitation, San Diego, Nov.2018.
11. Hooyman A, Fisher B, Kutch J, **Winstein C**. Piloting a paired associative stimulation to modulate resting-state intracortical connectivity. Poster Presentation at Dentistry Research Day, 2018.
12. Rini Varghese, MS, PT1, James Gordon, EdD, PT1, and Carolee Winstein, PhD, PT1,2. Interlimb differences during bimanual aiming after stroke: Effect of target distance. Poster presentation at Society for Neuroscience, Nov 2018 and Progress in Clinical Motor Control at Penn State in July, 2018.
13. Rini Varghese and Carolee Winstein. Interlimb coupling during the early and late phase of bimanual movements: influence of limb dominance. Poster presentation at Neural Control of Movement, April, 2018
14. Rini Varghese and Carolee Winstein. Different means to a single end: Hemispheric asymmetry and bimanual movements. Poster presented at Dentistry Research Day, April, 2018.
15. Ito, K.L., Garrison, K.A, Heydari, P., Sobhani, M., Werner, J., Damasio, H., **Winstein, C.J.**, Aziz-zadeh, L., & Liew, S-L. (June 2017). Decreased interhemispheric functional connectivity during action observation after stroke. Poster to be presented at the Organization for Human Brain Mapping Conference, Vancouver, Canada.
16. \*J. M. Anglin<sup>1</sup>, N. Banks<sup>1</sup>, M. Sondag<sup>1</sup>, K. Ito<sup>1</sup>, H. Kim<sup>1</sup>, J. Chan<sup>1</sup>, J. Ito<sup>1</sup>, C. Jung<sup>1</sup>, S. Lefebvre<sup>1</sup>, W. Nakamura<sup>1</sup>, D. Saldana<sup>1</sup>, A. Schmiesing<sup>1</sup>, C. Tran<sup>1</sup>, D. Vo<sup>1</sup>, P. Heydari<sup>1</sup>, B. Kim<sup>1</sup>, N. Khoshab<sup>2</sup>, L. Aziz-Zadeh<sup>1</sup>, S. C. Cramer<sup>2</sup>, J. Liu<sup>3</sup>, S. Soekadar<sup>4</sup>, L. T. Westlye<sup>5</sup>, J. Wang<sup>3</sup>, **C. J. Winstein<sup>1</sup>**, C. Yu<sup>3</sup>, M. Lakich<sup>6</sup>, A. Pienta<sup>7</sup>, A. Stroud<sup>7</sup>, S.-L. Liew<sup>1</sup>; The Atlas (Anatomical Tracings of Lesions after Stroke) Dataset. Poster, Society for Neuroscience, Wash DC, 2017
17. Schweighofer N., Wang C., **Winstein C**. Trade-off between efficacy and efficiency of motor training post-stroke. Poster at American Society of Neurorehabilitation and Society for Neuroscience, Wash DC, 2017
18. Sargent B, Havens K, Marcione N, **Winstein C**, Fetters L. Increasing selective hip-knee control of infants at high risk for Cerebral Palsy: A feasibility study. Poster at American Society of Neurorehabilitation, Wash DC, 2017
19. Sargent B, Havens K, Marcione N, **Winstein C**, Fetters L. Increasing selective hip-knee control of

- infants at high risk for Cerebral Palsy: A feasibility study. Poster at Society for Neuroscience, Wash DC, 2017
20. Varghese R, Stoll HM, Jax SA, Buxbaum LJ, **Winstein CJ**. The best predictors of non-use in chronic stroke: A preliminary investigation. Poster at American Society of Neurorehabilitation, Wash DC, 2017
  21. Kim B, Choi S, Kay DB, Schweighofer N, Halder J, Leahy RM, Fisher B, **Winstein CJ**. Quantification of corticospinal tract structural characteristics using DTI in chronic stroke survivors. Poster at Society for Neuroscience, Wash DC, 2017
  22. Kim B, Schweighofer N, **Winstein CJ**. Can CST FA symmetry predict motor behavior improvement in chronic stroke survivors with mild-to-moderate motor impairment? Poster at American Society of Neurorehabilitation, Wash DC, 2017.
  23. Varghese R, **Winstein CJ**. Bimanual use in chronic stroke survivors with left or right hemiparesis is differentially influenced by interlimb relationship. Poster at American Society of Neurorehabilitation, Wash DC, 2017
  24. Ito, K.L., Liew, S.L., Garrison, K.A., Heydari, P., Sobhani, M., Werner, J., Damasio, H., **Winstein, C.J.**, Aziz-Zadeh, L. (March 2016). Lateralization of action observation network activity after stroke. Poster presented at the USC Herman Ostrow School of Dentistry Research Day, Los Angeles, CA. Awarded Second Place best poster in Occupational Science and Occupational Therapy.
  25. Ito, K.L., Liew, S.L. Garrison, K.A., Heydari, P., Sobhani, M., Werner, J., Damasio, H., **Winstein, C.J.**, Aziz-Zadeh, L. (June 2016). Laterality in the action observation network after stroke. Poster to be presented at the Organization for Human Brain Mapping Conference, Geneva, Switzerland.
  26. Chung Y-C, Lewthwaite R, **Winstein CJ**, Fisher BE. (2016). Impact of enhanced expectations on self-efficacy and motor learning in individuals with Parkinson's disease. ASNR Annual Meeting, San Diego, CA Nov 10-11, 2016. Poster Also presented at Society for Neuroscience Annual Meeting, San Diego, CA, Sat Nov 12, Poster Board No. J8, 41.16
  27. Chen Y-A, Lewthwaite R, Monterosso JR, Schweighofer N, Fisher BE, **Winstein CJ**. (2016). Mobile phone-based ecological momentary assessment of day-to-day paretic hand use following stroke. ASNR Annual Meeting, San Diego, CA Nov 10-11, 2016.
  28. Beroukhim-Kay D, Monterosso J, Lewthwaite R, Schweighofer N, Kutch J, **Winstein CJ**. (2016) Using neuroimaging to study the impact of motivation on brain activity during motor learning: methodological considerations. ASNR Annual Meeting, Poster, San Diego, CA Nov 10-11, 2016.
  29. Kim B, Kay DB, Schweighofer N, Haldar JP, Leahy RM, Fisher B, **Winstein CJ**. (2016). Changes in corticospinal tract microstructure are associated with motor performance improvement in chronic stroke Society for Neuroscience Annual Meeting, San Diego, CA, Poster, Board No. JJ13, 520.26, Tu Nov 15th
  30. Heydari P, Liew S-L, Damasio H, **Winstein C**, Aziz-Zadeh L. (2016). Functional MRI activity patterns in the action observation network for chronic stroke patients. Society for Neuroscience Annual Meeting, San Diego, CA, Poster Board No. VV24, 437.19, Monday, Nov 14th

31. Liew S-L, Jahanshad N, Anglin J, Khoshab N, Kim B, Nakamura W, Nhoung H, Rondina J, Tran C, Borish M, Boyd L, Cramer S, Mimyan M, Erner E, Lang C, Li J, Nichols T, Roberts P, Sanossian N, Soekadar S, Ward N, Westlye L, **Winstein C**, Wittenberg G, Thompson P (2016). ENIGMA /strije /recivert: Big data neuroimaging to predict stroke recovery. Society for Neuroscience Annual Meeting, San Diego, CA, Poster Board II10, 520.05, Tuesday, Nov 15th
32. Bacon HR, Kim B, Martinez CA, **Winstein CJ**. (2016). Evidence of common structures in the performance of functional tasks in individuals with moderate upper extremity impairment after stroke. ASNR Annual Meeting, San Diego, CA. Poster, Nov 12th
33. B. Kim, Y. OH, R.M. Leahy, J.P. Haldar, N. Schweighofer, **C.J. Winstein**. Is Structural connectivity of Basal Ganglia associated with learned non-use in chronic stroke? Poster, ASNR and SfN, Chicago, Ill, October 2015
34. L. Nocera, H.R. Bacon, J-Y Kao, Y-C Chung, Y-A Chen, L. Spoto, B.E. Fisher, C. Shahabi, **C.J. Winstein**. Towards assessing mobility in Parkinson's Disease Patients using a single 3D sensor. Poster, ASNR, Chicago, Ill, October 2015
35. Bacon H, Chen Y-A, Chung Y-C, Wang R, Kao J-Y, Fisher B.E., Medioni G, Nocera L, Blanco C, **Winstein CJ**. In a Kinect-based Point of Care Mobility System Feasible for Monitoring Motor Behavior in Parkinson's Disease? Poster at the Boston ROC meeting, October 24, 2014, Boston University, Boston, MA
36. Chen Y-A, Chung Y-C, Kim B, **Winstein CJ**. Does task engagement level affect how we move? Poster 9, ASNR Annual Meeting, Washington DC, Nov 13, 2014
37. Kim B, Kay D.B, Yu Y, Lee D, Chaudhry Y, Haldar J.P, Leahy, R.M., **Winstein C.J**. DTI analysis of corticospinal tract using BrainSuite: A potential biomarker of upper extremity therapeutic response to Neurorehabilitation in chronic stroke. Society for Neuroscience, Poster # 717.20/DD24, Washington DC, Convention Center. Nov 16, 2014.
38. Martinez CA, Bacon HR, Finley JM, Schweighofer N, **Winstein CJ**. Can inertial sensors be used to characterize treatment-induced skill acquisition in chronic stroke? Society for Neuroscience, Poster 164.05/76, Washington DC, Convention Center. Nov 16, 2014.
39. Martinez CA, Kuo YL, Dubuc T, **Winstein CJ**, Schweighofer N, Fisher BE. Reliability of ipsilateral silent period to measure interhemispheric inhibition. Poster at USC Ostrow School of Dentistry Research Day, 2014.
40. Yu Y, Kay DB, Lee D, Chaudhry Y, Chong M, Joshi AA, Bhushan C, Shattuck DW, Haldar JP, Leahy RM, **Winstein CJ**. Single Case Report: DTI analysis of corticospinal tract characteristics after stroke rehabilitation using BrainSuite13a. Poster at USC Ostrow School of Dentistry Research Day, 2014
41. Chen Y-A, et al., Effects of self-efficacy enhancement on paretic hand selection in stroke. Poster at USC Ostrow School of Dentistry Research Day, 2014, 2<sup>nd</sup> place in Neuro motor track.
42. Kim B, Wade E, Proffitt R, Lange B, Requejo P, Chen Y-A, Chung Y-C, **Winstein C**. Reaching to virtual or real targets while standing or stepping. Poster at USC Ostrow School of Dentistry Research Day, 2014

43. Kashani FB, Medioni G, Nguyen K, Nocero L, Shahabi C, Wang R, Blanco CE, Chen Y-A, Chung Y-C, Fisher B, Mulroy S, Requejo P, **Winstein C**. Demonstration: Monitoring mobility disorders at home using 3D visual sensors and mobile sensors. WH '13: Proceedings of the 4<sup>th</sup> Conference on Wireless Health, November 2013. Article No.:13, pp 1-2. <https://doi.org/10.1145/2534088.2534097>
44. Mazzone B, Haubert LL, Mulroy S, Requejo P, Gotsis M, Lympouridis V, Lange B, Proffitt R, **Winstein C**. (2013). Intensity of shoulder muscle activation during resistive exercises performed with and without virtual reality games. Virtual Rehabilitation (ICVR), 2013 International Conference on, pp 127-133, IEEE. [Platform]
45. **Winstein CJ**, Wolf SL, Dromerick AW, Blanton S, Nelsen MA, Lane CJ, Lewthwaite R, Scott C, Reiss A, Cen S, Holley R. Interdisciplinary Comprehensive Arm Rehabilitation Evaluation (ICARE): A randomized controlled trial. International Stroke Conference, Ongoing Clinical Trials Session, Feb 6-8, Hawaii Convention Center, Honolulu, Hawaii. [Poster]
46. Wang R, Medioni G, **Winstein CJ**, Blanco C. (2013). Home monitoring musculo-skeletal disorders with a single 3D sensor. Computer Vision and Pattern Recognition Workshops (CVPRW), 2013 IEEE conference on, pp 521-528, IEEE. [Platform]
47. Lee YY, **Winstein CJ**, Gordon J, Petzinger G, Zelinski E, Fisher BE. (2013). The role of the dorsolateral prefrontal cortex in context-dependent learning. J Sport & Exercise Psychology, 35, S36, Human Kinetics Publ, Inc. [Platform]
48. Wang X, Verma S, Qin Y, Sterling J, Zhou A, Zhang J, Martinez C, Casebeer N, Koh H, **Winstein C**, Liu B. (2013). SPIE Medical Imaging. Pp. 86740P-86740P-11. International Society for Optics and Photonics Pub. Proc. SPIE 8674, Medical Imaging 2013: Advanced PACS-based Imaging Informatics and Therapeutic Applications, 86740P (March 29, 2013); doi:10.1117/12.2008585 [Platform]
49. Beroukhim D, Konersman M, Chong M, Joshi A, Bhusan C, Shattuck DW, Haldar JP, Leahy RM, Winstein CJ. (2013) Effects of rehabilitation post-stroke: DTI analysis of corticospinal tract characteristics using BrainSuite13. Society for Neuroscience, 338.11 [Poster]
50. Ko N-K, Lawrence EL, Dayanidhi S, Hu W, Diconti A, Lerner J, **Winstein C**, Fisher B, Requejo P, Valero-Cuevas FJ. (2013) The strength-dexterity test can detect differences in dynamic control of fingertip forces between individuals with Parkinson's disease and non-disabled older adults. Society for Neuroscience, 431.07 [Poster]
51. Lee Y-Y, Winstein CJ, Petzinger GM, Gordon J, Zalinski E, Fisher BE. (2013). Context-dependent motor learning is mediated by the frontostriatal circuit. Society for Neuroscience, 843.01 [Poster]
52. Chen Y-A, Lewthwaite R, Chen S-Y, Feldman R, **Winstein C**. (2013). Effects of social-comparative feedback to enhance self-efficacy of paretic hand selection in chronic stroke: A pilot study. American Society for Neurorehabilitation, #31, San Diego, CA [Poster]
53. Wade E, Proffitt R, Kim B, Lange B, Requejo P, Chen Y-A, Chung Y-C, **Winstein CJ** (2013). Do the elderly use the same strategy to plan/adjust reaching movements for real and virtual targets? Gerontology Society of America, Atlanta, GA. Session 955, # 50 [Poster]
54. Wade E, Chen S-Y, **Winstein C**. (2012) Kinematic performance of the paretic and non-paretic limbs

- after stroke during a goal-directed reaching task. Society for Neuroscience, 186.13 [Poster]
55. Nelsen M, Xiang A, Azen S, **Winstein C**, Dromerick A, Wolf S. Poster Session, May 17th: Design and methods of a stroke clinical trial: ICARE Interdisciplinary Comprehensive Arm Rehabilitation Evaluation (ICARE) Stroke Initiative. Society for Clinical Trials 31st Annual Meeting, Baltimore Marriott Waterfront, May 16-19, 2010. (Nelsen and Dromerick presentors)
  56. **Winstein C**, Wolf SL, Dromerick A, Nelsen M, Lane C. Symposium: Interdisciplinary Comprehensive Arm Rehabilitation Evaluation (ICARE) Stroke Trial: Rationale, Challenges, and Opportunities for a Phase III RCT in Neurorehabilitation. 2010 ACRM-ASNR Joint Educational Conference, Oct 20-23, Montreal, Quebec, Canada.
  57. Charalambous C, Lai Y-H, Wade E., **Winstein CJ**. Poster: What factors are prioritized for planning actions that require goal-directed positioning? 40<sup>th</sup> Annual Meeting Society for Neuroscience, San Diego, CA Nov 10-13, 2010.
  58. Garrison KA, Aziz-Zadeh LS., **Winstein CJ**. Poster: 97.17 Action observation after stroke: the mirror neuron system and the mentalizing system. 40<sup>th</sup> Annual Meeting Society for Neuroscience, San Diego, CA Nov 10-13, 2010.
  59. Chen S, Lewthwaite R, Schweighofer N, **Winstein C**. Poster: Target-specific self-efficacy may predict hand selection for reaching movements in hemiparetic stroke. 40<sup>th</sup> Annual Meeting Society for Neuroscience, San Diego, CA Nov 10-13, 2010.
  60. Stewart J, Lewthwaite R, **Winstein C**. Platform: Self-efficacy for reach actions after stroke: a pilot study. Society for the Psychology of Sport and Physical Activity (NASPSPA), June 10-12, Tuscan, AZ, 2010
  61. Matsubara J, Goh H-T, **Winstein CJ**, Lewthwaite R. Poster: Self-efficacy and the development of automaticity in motor learning. Society for the Psychology of Sport and Physical Activity (NASPSPA), June 10-12, Tuscan, AZ, 2010
  62. Garrison KA, **Winstein CJ**, Aziz-Zadeh L. Poster: The mirror neuron system after stroke: Preliminary single subject data. North American Society for the Psychology of Sport and Physical Activity (NASPSPA), June 10-12, Tuscan, AZ, 2010.
  63. Katak SS, Sullivan KS, Fisher BE, Knowlton BJ, **Winstein CJ**. Poster: Neural substrates for motor memory consolidation depend on practice conditions: A double dissociation of primary motor cortex and dorsolateral prefrontal cortex. Society for the Psychology of Sport and Physical Activity (NASPSPA), June 10-12, Tuscan, AZ, 2010
  64. Charalambous C, Lai Y-H, **Winstein C**. Poster: Novel method for estimating the psychophysical parameters of movement cost for a goal-directed stepping task. Society for the Psychology of Sport and Physical Activity (NASPSPA), June 10-12, Tuscan, AZ, 2010
  65. Goh H-T, **Winstein C.J.**, Gordon J., Sullivan K.J. Poster: Use of a dual-task probe paradigm during skill acquisition influences learning of the primary task. CSM, Feb 19<sup>th</sup>, San Diego, CA., 2010.
  66. Stewart JC, Gordon J, **Winstein CJ**. Poster: Is the scaling of reach kinematics to 3-D virtual targets

preserved after stroke? CSM Feb 19<sup>th</sup>, San Diego, CA. 2010

67. Symposium: PTClinResNet: Translating the results of the clinical research network into practice. [Winstein, Fowler, Kulig, Sullivan, Mulroy, Brown, Poppert, Newsam, Gordon] CSM, Feb 12th, Las Vegas, NV. 2009
68. Stewart J, Gordon J, **Winstein C**: Poster #1157: “Anticipatory scaling of reach kinematics to 3-D virtual targets”. CSM, Las Vegas, NV, Feb 2009
69. Kantak S, Sullivan K, Fisher B, **Winstein C**. Poster #1174: “Role of primary motor cortex in motor memory consolidation: Effects of practice conditions” CSM, Las Vegas, NV, Feb 2009
70. Kantak SS, Sullivan KJ, Fisher BE, and **Winstein CJ**. University of Southern California. Role of Primary motor cortex in motor memory consolidation: Effect of practice conditions, Platform NASPSPA Conference, June 2009, Austin, TX.
71. Stewart JC, Gordon J, **Winstein CJ**. Initial plan and compensatory adjustments of unconstrained reach actions after sensorimotor stroke. Poster 568.13/EE75 40th Annual Meeting Society for Neuroscience, Chicago, Nov 2009
72. Pitsch EA, **Winstein CJ**, Fisher BE. The effect of instructions during motor imagery on corticomotor excitability of the tibialis anterior. Poster 663.16/DD17 40th Annual Meeting Society for Neuroscience, Chicago, Nov 2009
73. **Winstein CJ**, Chen S-Y, Yoon H. The extremity constraint-induced therapy evaluation trial revisited: Feasibility of data mining for task classification. Poster 769.9/DD50 40th Annual Meeting Society for Neuroscience, Chicago, Nov 2009
74. Chen S-Y, Han CE, Lai Y-H, Hidaka Y, Lee J, **Winstein CJ**, Schweighofer N. Poster 769.11/DD52 Objective quantification of paretic arm nonuse for stroke using bilateral arm reaching task. 40th Annual Meeting Society for Neuroscience, Chicago, Nov 2009
75. Hidaka Y, Han CE, Wolf S, **Winstein C**, Schweighofer N. Poster 769.17/DD58 Effects of the intensity of constraint-induced therapy on long-term arm use and function in patients with stroke: Predictions from a computational model. 40th Annual Meeting Society for Neuroscience, Chicago, Nov 2009
76. Goh H-T, Gordon J, **Winstein CJ**, Sullivan KJ. Poster 872.5/DD36 Development of automaticity in a rapid discrete arm movement is associated with increased movement smoothness. 40th Annual Meeting Society for Neuroscience, Chicago, Nov 2009
77. Kantak SS, Fisher FE, Sullivan KJ, **Winstein CJ**. 872.12/DD43 Neural substrates of motor memory consolidation: Effects of practice condition. 40th Annual Meeting Society for Neuroscience, Chicago, Nov 2009
78. Chen, S-Y, Han C.E., Parikh, N., Lee J., Lee JY, Xu, E., **Winstein, CJ**, Schweighofer, N. BART: A novel laboratory-based instrument to quantify preferred limb use in patients after stroke. Poster, Society for Neuroscience, Wash D.C., 2008



79. Han, C.E., Tretriluxana, J., **Winstein, C.J.**, Arbib, MA. Variability in detour trajectory strategies for reach-to-grasp behavior: A computational model of individualized strategies based on the virtual target hypothesis. Poster 466.5/KK12 Society for Neuroscience, Wash D.C., 2008
80. Stewart, J.C., Gordon, J., **Winstein, C.J.** Initial plan and early adjustments of unconstrained reach actions to 3-D virtual targets. Poster 861.24/KK4 Society for Neuroscience, Wash D.C., 2008
81. Kantak, S.S., Sullivan K, Fisher B, **Winstein C.** Effects of practice conditions on the role of primary motor cortex in motor memory consolidation. Poster 588.15/TT15 Society for Neuroscience, Wash D.C., 2008
82. **Winstein, C.J.** Invited Symposium with S. Cramer, S.I. Savitz, and L. Cohen: Clinical approaches to brain repair after stroke. Task-oriented training. International Stroke Conference, New Orleans, LA, 2008.
83. H. Ojha, R. Kern, C-H Lin, **C.J. Winstein**. Effect of age on attention during standing and stair climbing: A dual-task approach in the clinic. Platform presentation at Combined Sections Meeting, Nashville, TN, 2008
84. J C Stewart, H. Yoon, S-C, Yeh, S-Y Chen, M. McLaughlin, A Skip Rizzo, **C.J. Winstein**. Training reach movements in individuals with hemiparesis: Effect of a virtual environment. Platform presentation at Combined Sections Meeting, Nashville, TN, 2008.
85. J. Tretriluxana, H. T. Goh, **C.J. Winstein**, J. Gordon: Is the right hemisphere specialized for rapid adaptation of trajectory and transport-grasp coordination? Program# 82.6. Poster presentation at Society for Neuroscience, 2007 (San Diego, CA, USA)
86. S. L. Wolf, H. Newton, D. Maddy, S. Blanton, Q. Zhang, **C.J. Winstein**, D. M. Morris, K. Light: The EXCITE trial: relationship of intensity of constraint induced movement therapy to improvement in the Wolf Motor Function Test. Program#82.11. Poster presentation at Society for Neuroscience, 2007 (San Diego, CA, USA)
87. S.-Y. Chen, Q. Zhang, **C.J. Winstein**, S. L. Wolf: Objective assessment of spontaneous use of the affected arm after constraint-induced movement therapy: Evidence from the EXCITE trial. Program# 82.10 Poster presentation at Society for Neuroscience, 2007 (San Diego, CA, USA)
88. **C.J. Winstein**, S. Blanton, C. Hahn, C. Kushi, J. Wang, L. Horvath, M. Prettyman, P. A. Thompson, Q. Zhang, D. Nichols-Larsen, S. L. Wolf, S. Rowles: Task-oriented training: an analysis of the components of training from the EXCITE trial. Prpgram#82.10 Poster presentation at Society for Neuroscience, 2007 (San Diego, CA, USA)
89. C. Tan, J. Tretriluxana, E. Pitsch, **C. J. Winstein**: The effect of constraint-induced movement therapy on motor control of grasping actions after stroke: a kinematic and behavior analysis. Program#82.7 Poster presentation at Society for Neuroscience, 2007 (San Diego, CA, USA)
90. K. A. Garrison, **C. J. Winstein**, V. Y. Rao, S. Y. Cen, Y. Dong, B. H. Dobkin: Dynamic interplay of task-specificity, motor control and compensatory behavior: an fMRI study in stroke. Program#82.8 Poster presentation at Society for Neuroscience, 2007 (San Diego, CA, USA)

91. A. D. Wu, C. Deblieck, I. Meister, J. Kaplan, **C. J. Winstein**, M. Iacoboni: Neural correlates of cyclic aiming are dependent on accuracy constraints. Program#618.22 Poster presentation at Society for Neuroscience, 2007 (San Diego, CA, USA)
92. C-H Lin, A.D. Wu, **C.J. Winstein**: Role of the human motor cortex in learning temporal dimension of fast discrete arm tasks is associated with practice condition. Poster presentation at the Combined Sections Meeting of the APTA, 2007 (Boston, MA, USA)
93. Chien-Ho (Janice) Lin, Allan D Wu, James Gordon, **Carolee J Winstein**: Skill development of rapid sequential arm movements: What is the contribution of spatial and temporal parameter learning? Program# 506.14. Platform presentation at Society for Neuroscience, 2006 (Georgia Atlanta, USA).
94. Janice (Chien-Ho) Lin and **Carolee J Winstein**: Neural mechanisms of the contextual interference effect in motor skill learning: a transcranial magnetic stimulation (TMS) study. Platform presentation at North America Society for the Psychology of Sport and Physical Activity, 2006 (Denver, CO, USA). *J Sport Exercise Psychology*, 28: supplement, p107, 2006.
95. Janice (Chien-Ho) Lin and **Carolee J Winstein**: The effect of task practice order in motor skill learning for individual with Parkinson's disease. Poster presentation at Plasticity and Repair in Neurodegenerative Disorders Workshop, May 11-14, 2006 (Lake Arrowhead, CA, USA).
96. Chien-Ho (Janice) Lin, Allan D Wu, Shailesh Kantak, Katherine J Sullivan, **Carolee J Winstein**: The effect of task practice order in motor skill learning for adults with Parkinson's disease. Control ID: 175579. Poster presentation at combined section meeting of American Physical Therapy Association, 2006 (San Diego, USA).
97. Tretriluxana J, **Winstein CJ**, Gordon J. Reach-to-grasp coordination: Hemispheric asymmetry, Poster Presentation, Plasticity and Repair in Neurodegenerative Disorders: a workshop 2006, Lake Arrowhead, CA, May 11-14, 2006.
98. Tretriluxana J, **Winstein CJ**, Gordon J. Aperture scaling to object size during reach-to-grasp with the ipsilesional arm following unilateral brain damage: double dissociation in each cerebral hemisphere, Verbal presentation, *Journal of Sport & Exercise Psychology* 28 (Supplement issue): 183, July 2006. Denver NASPSA 2006.
99. Tretriluxana J, **Winstein CJ**, Gordon J. Hemisphere-specific impairments in grasp pre-shaping and transport-grasp coordination: Effect of object size, Poster presentation, Program No. 147.20 2006 Abstract Viewer/Itinerary Planner. Atlanta: Society for Neuroscience Society for Neuroscience 2006.
100. Han CE, Tretriluxana J, Bonaiuto J, Schweighofer N, **Winstein CJ**, Arbib MA. Difference in cognition and latency may affect variability in strategy for lateralized reach-to-gasp actions, Poster presentation, Program No. 440.18 2006 Abstract Viewer/Itinerary Planner. Atlanta: Society for Neuroscience Society for Neuroscience 2006.
101. Stewart JC, Yeh SC, Jung Y, Yoon H, Whitford M, Chen S, Li L, McLaughlin M, Rizzo A, **Winstein CJ**. (2006). Pilot Trial Results from A Virtual Reality System Designed to Enhance Recovery of Skilled Arm and Hand Movements after Stroke. Proceeding of the 5th International Workshop on Virtual Rehabilitation, New York, pp 11-17. [Platform]

102. Lin, J.C. Wu, A.D **Winstein, C.J.** Using transcranial magnetic stimulation to investigate the mechanism of the contextual interference effect in motor skill learning. Program No. 581.3. 2005 Abstract Viewer/Itinerary Planner. Washington, DC: Society for Neuroscience
103. Tretriluxana, J. **Winstein, C.J.** Gordon, J. Reach - to - grasp coordination: hemispheric asymmetry. Program No. 867.22. 2005 Abstract Viewer/Itinerary Planner. Washington, DC: Society for Neuroscience
104. Wu, A.D. Lin, J.C.H. Schrader, L.M. Iacoboni, M **Winstein, C.J.** Repetitive transcranial magnetic stimulation of left motor cortex affects aiming movement kinematics. Program No. 989.23. 2005 Abstract Viewer/Itinerary Planner. Washington, DC: Society for Neuroscience.
105. Stewart, J.C. Choi, Y Goh, H. Katak, S. **Winstein, C.J** Schweighofer. N. Practice schedules to enhance grasp function following stroke. Program No. 333.9. 2005 Abstract Viewer/Itinerary Planner. Washington, DC: Society for Neuroscience.
106. **Winstein CJ** (2004). Brain-behavior correlates of recovery after stroke. Presentation at the Plasticity and Repair in Neurodegenerative Disorders: A Workshop. Feb 19-22, UCLA Conference Center, Lake Arrowhead, CA.
107. **Winstein CJ, Dong Y.** (2003). Relationship between post-stroke impairment, functional limitations, and hemisphere motor cortical organization. Neurology Report, 27, 168. [Abstract for 2004 Combined Sections Meeting, Feb 4-8, Nashville, TN]
108. Lin CH, Winstein CJ (2003). Serial reaction time task learning after stroke: a methodological examination. Neurology Report, 27: 165-166. [Abstract for 2004 Combined Sections Meeting, Feb 4-8, Nashville, TN]
109. Tretriluxana J, Winstein CJ (2003). Preliminary investigation of coordination and skill during a functional reach-grasp-place action in chronic stroke. Neurology Report, 27: 165. [Abstract for 2004 Combined Sections Meeting, Feb 4-8, Nashville, TN]
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111. Tretriluxana, J., Winstein, C.J. Hand posture selection and temporal control of a complex prehension task after unilateral stroke. Program Number: 389.9. 2003 Abstract Viewer/Itinerary Planner. Washington, DC: Society for Neuroscience.
112. Rose D., Winstein, C.J. The Nature of Bimanual Spatial Coupling Following Stroke. 2003. J. Sport & Exercise Psychology, 25, (Suppl) S112. North American Society for the Psychology of Sport and Physical Activity (NASPSPA). Savannah, GA, June 5-7.
113. Rose, DK, Winstein, C.J. (2002). Inter-limb temporal synchrony following stroke. Neurology Report, 26: 187 [Abstract for 2003 Combined Sections Meeting, Feb 11-15, Tampa, Florida]
114. Winstein CJ (2002). Symposium: Kinesiologic Contributions to Stroke Rehabilitation. Symposium Discussant. J. Sport & Exercise Psychology, 24, (Suppl) S13-14. (NASPSPA, June 6-8, 2002, Hunt Valley, Maryland)

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116. Boyd LA, **Winstein CJ** (2001). Implicit learning of a complex tracking task: the effect of explicit knowledge and focal stroke in the basal ganglia or cerebellum. Society for Neuroscience, Nov 10-15, San Diego, CA [Abstract, 638.10]
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120. Boyd, LA, **Winstein CJ**. (2001). The interaction between explicit knowledge and implicit motor-sequence learning following unilateral stroke. *Neurology Report*, 25: 133 [Abstract for 2002 Combined Sections Meeting, Feb 19-24, Boston, MA]
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140. **Winstein, CJ** (1999) Recent developments in the rehabilitation of motor control: Is basic research in motor control a useful launching pad for rehabilitation practice? Symposium Reactor. J. Sport & Exercise Psychology, 21, (Suppl) S8-9.

141. Boyd, LA and **Winstein, CJ.** (1998). Serial reaction time learning in individuals with unilateral brain damage. Society for Neuroscience, 24, 2116 [Abstract 841.12]
142. Fisher BF, **Winstein CJ**, Velicki MR (1998). Amplitude scaling in rapid aiming movements is impaired after unilateral sensorimotor area damage. Society for Neuroscience, 24, 1663 [Abstract 653.8]
143. Sullivan KJ, **Winstein CJ** (1998). Deficits in motor program acquisition and control but not learning after unilateral sensorimotor system damage. Society for Neuroscience, 24, 1665 [Abstract 653.15]
144. **Winstein, C.J.**, Onla-or, S., & Sullivan, K. (1997). Deficits in movement-related information processing post-stroke: a kinematic analysis. Society for Neuroscience, 23, 2373 [Abstracts]
145. **Winstein, C.J.**, Fisher, B.E., & Onla-or, S. (1997). Response Variability of Goal-Directed Voluntary Arm Movements: Pathology or Flexibility? Journal of Sport and Exercise Psychology, 19 (Suppl), S20 [Abstract]
146. Sullivan KJ, **Winstein CJ** (1997). Neural substrate of motor learning: Evidence from an individual with Alzheimer's Disease. J. Exercise & Sport Psychology, 19, (Suppl) S112.
147. Sullivan, K. & **Winstein, C.J.** (1997). Practice-related improvement during motor skill acquisition post unilateral-brain damage, Society for Neuroscience, 23, 2374, 1997 [Abstract].
148. Sullivan KJ, **Winstein CJ** (1997). Actions speak louder than words: A case study demonstrating declarative but not procedural memory deficits. Neurology Report, 21, 49 [Abstract]
149. Cardinale, C., Green, A., Sauber, C., Wong, L., **Winstein, C.J.**, & Pohl, P.S. (1995). Effectiveness of knowledge of results or concurrent feedback during practice of a partial weight bearing task. [Abstract]. Neurology Report, 19, 22-23.
150. Merians, A., **Winstein, C.J.**, Sullivan, K., & Pohl, P.S. (1995). Effects of feedback for motor skill learning in older healthy subjects and individuals post-stroke". Abstract. Neurology Report, 19, 23-25.
151. **Winstein, C.J.**, Pohl, P.S., & Fisher, B.E. (1995). Predictors of motor performance in the ipsilateral upper extremity in individuals post-right vs left stroke. Abstract. Neurology Report, 19, 21-22.
152. **Winstein, C.J.**, Pohl, P.S., Grafton, S.G. (1995). Functional neuroanatomy of goal-directed hand aiming movements: a PET study. Abstract Society for Neuroscience, 21, 1422.
153. **Winstein CJ**, Pohl PS, Grafton ST. (1995). Task complexity effects on neural activity: An investigation of rapid goal-directed aiming using positron emission tomography (PET). J. Sport & Exercise Psychology, 17, (Suppl) S111.
154. Pohl, P.S., & **Winstein, C.J.** (1994). Effects of practice on the control of reciprocal aiming movements post-stroke. Abstract Society for Neuroscience, 20, 1199.
155. Velicki, M.R., **Winstein, C.J.**, Altman, K., & Pohl, P.S. (1993). Trajectory parameters specification in subjects post stroke. Abstract, Society for Neuroscience, 19, 546.

156. Weng, A. & **Winstein, C.J.** (1993). An examination of reactive response time and sagittal joint angle responses to platform perturbations during bipedal stance in normal and individuals post-stroke. Abstract, Neurology Report, 17, 22.
157. Sullivan, K.J., **Winstein, C.J.**, & Pohl, P.S. (1993). Effects of movement direction in aiming movements in healthy subjects and individuals post-stroke. Abstract, Neurology Report, 17, 25.
158. Pohl, P.S., & **Winstein, C.J.** (1993). Hemispheric differences in the control of rapid aiming movements. Abstract, Society for Neuroscience, 19, 546.
159. **Winstein, C.J.**, & Pohl, P.S. (1993). Frequent on-target experience during practice degrades the learning of target location more than frequent knowledge of results. Abstract, Journal of Sport and Exercise Psychology, 15 (Suppl.), S92.
160. **Winstein, C.J.**, & Pohl, P.S. (1993). An examination of age-related differences in the control strategies of reciprocal aiming movements. Abstract, Journal of Sport and Exercise Psychology, 15 (Suppl.), S92.
161. Pohl, P.S., **Winstein, C.J.**, & Lewthwaite, R. (1992). Processes underlying motor learning: A methodological perspective. Abstract, Physical Therapy, 72, S10.
162. **Winstein, C.J.**, Horak, F.B., & Abbs, J.H. (1989). Effect of load magnitude predictability on automatic compensatory grip force adjustments. Abstract, Society for Neuroscience, 15, 397.
163. **Winstein, C.J.**, & Garfinkel, A. (1985). Spastic locomotion: A dynamic analysis of stroke patients before and after therapy. Abstract, Society for Neuroscience, 11, 1166.
164. **Winstein, C.J.**, Barto, P., Parker, K., & Perry, J. (1985). Change in gait and balance variables in adult hemiplegics. Abstract, Physical Therapy, 65, 726.
165. **Winstein, C.J.**, Jewell, M., Montgomery, J., Perry, J., & Thomas, L. (1984) Short leg casts: An adjunct to gait training hemiplegics. Abstract, Physical Therapy, 64, 713-714.

### Invited presentations

\*Missing 2014-2016

1. **Winstein CJ.** Everything you always wanted to know about clinical trials research in neurorehabilitation but were afraid to ask. World Federation for Neurorehabilitation (WFNR) Education and Research Webinar Series, December 7, 2021.
2. **Winstein CJ.** Translating the Science into Best Practices to Optimize recovery in Neurorehabilitation. Progress in Motor Control XIII, Auckland, New Zealand. 29 Aug – 1 Sept, 2021. Conference held virtually because of the pandemic.
3. **Winstein CJ.** In search of the holy grail: Best practices for optimal recovery in neurorehabilitation. Israeli Physical Medicine and Rehabilitation Society Virtual Conference, December 30, 2020 (invitation from Tamar Weiss, PhD, OT, Professor emeritus, University of Haifa, Haifa, Israel)
4. **Winstein CJ.** AHA Guidelines for Adult Stroke Rehabilitation, December 20, 2017. Invited by Sheng Bi, Honorary President of Hospital—Rehabilitation Hospital affiliated to National Research

Center for Rehabilitation Technical Aids, Beijing, China.

5. **Winstein C.J.** Thoughts about Negative Results of Clinical Trials in Rehabilitative Medicine. 2017 National Academy of Kinesiology Annual Meeting in Wash DC (Sept 15).
6. **Winstein C.J.** and Ward S. Importance of Preclinical Studies / Advances in Rehabilitation Research at the Genetic, Molecular, and Tissue Levels. (Samuel Ward), How Can We Fix the Clinical Trial Enterprise in Rehabilitation? (**Carolee Winstein**). Sunday, Sept 17th CPTA 2017 Annual conference, San Diego, CA.
7. **Winstein C.J.** Advancing Rehabilitation Research in Today's Environment: Focus on Clinical Trials in Rehabilitation. CAPTA Annual Meeting, Sept 15-17, San Diego Convention Center, San Diego, CA.
8. **Winstein C.J.** Measuring Impairments and Quality of Movement: The Importance of Context, Confidence and Engagement for Neurorehabilitation. University of San Paolo, Brazil, Oct 31st., 2017
9. **Winstein C.J.** Past, Present, and Future of Neurologic Physical Therapy, ENAFIN Course, San Paolo, Brazil, Nov 3rd, 2017.
10. **Winstein C.J.** Future of Clinical Trials in Stroke Neurorehabilitation: Rationale, Challenges, and Opportunities for Innovative Approaches. 15<sup>th</sup> Annual Western States Stroke Consortium, October 26-27, 2013, Pasadena, CA. [Invited by Gene Sung, Chief, Division of Neurocritical Care and Stroke, USC]
11. **Winstein C.J.** Learning and Memory Processes: Mechanisms and Application to Neurorehabilitation. Invited Keynote Speaker at the University of Delaware Biomechanics Research Symposium through the Center for Biomedical Engineering Research (CBER). Research day at U. Del, Friday, May 3<sup>rd</sup>, 2013 [Darcy Reisman and John Scholz invited me]
12. **Winstein C.J.** Learning and Memory Processes: Mechanisms and Application to Task-Oriented Practice for Stroke Recovery. Invited session: Stroke Rehabilitation: Incorporating new findings into clinical practice. American Academy of Physical Medicine and Rehabilitation, October 4<sup>th</sup>, Gaylord National Hotel and Convention Center, Wash DC.
13. **Winstein C.J.** A Transformative Subfield in Rehabilitation Science at the Nexus of New Technologies, Aging and Disability. IOM and NRC Workshop on Fostering Independence, Participation, and Healthy Aging Through Technology. Forum on Aging, Disability and Independence, December 19<sup>th</sup>, 2012, Keck Center of the National Academies, Wash DC.[invited by Senior Program Officer, Institute of Medicine, recommended by Margaret Campbell at NIDRR]
14. **Winstein, C.J.** Learning and Memory Processes: Mechanisms and Application to NeuroRehabilitation. Moss Rehabilitation, Elkins Park, PA, April 6th, 2012. [John Whyte and Steve Jax invited me]
15. **Winstein C.J. Challenges to Translating Neurorehabilitation Research into Practice: A Perspective** from One Clinical Scientist. Keynote talk to the Asian Physical Therapy Research Symposium, hosted by Faculty of Physical Therapy, Mahidol University, Thailand, Sept 6, 2012. [Jool Tretriluxana, and the Faculty of Physical Therapy invited me]
16. **Winstein C.J.** Learning and Memory Processes: Mechanisms and Applications to



NeuroRehabilitation. Presented to the Asian Physical Therapy Research Symposium, hosted by Faculty of Physical Therapy, Mahidol University, Thailand, Sept 6, 2012. [Jool Tretriluxana, and the Faculty of Physical Therapy invited me]

17. **Winstein C.J.** Challenges to Translating Neurorehabilitation Research into Practice: A Perspective from one Clinical Scientist. Inaugural Robert L. Lamb Distinguished Lecture, Virginia Commonwealth University, Department of Physical Therapy, Friday, Sept 21<sup>st</sup>, 2012 [Mary Shall, Chair of VCU Dept of PT, invited me].
18. **Winstein C.J.** Enabling Healthy Minds and Bodies through Immersive Technology: Leveraging Interactive Media Technology for Rehabilitation. Sweet Briar College, Engineering Program, Sept 20<sup>th</sup>, 2012, Virginia. [Tim Scott, Adjunct Professor of Engineering at Sweet Brier invited me].
19. **Winstein CJ.** Future of clinical trials in stroke neurorehabilitation: Rationale, challenges and opportunities for innovative approaches. Plenary Session, ACRM-ASNR Annual Conference, Progress in Rehabilitation Research, Atlanta, GA, October 11-15, 2011, Hyatt Regency, Atlanta.
20. **Winstein CJ.** Stroke Rehabilitation: Where we are now and where are we going? Canadian Stroke Congress 2011, Ottawa, Ontario at the Ottawa Convention Centre, October 2-4, 2011.
21. **Winstein CJ.** The future of neurorehabilitation: best practice is theoretically inspired, grounded in science and patient-centered. Keynote speaker, Rehab Week, ETH Zurich, Science City, Zurich, Switzerland, June 27-July 1, 2011.
22. **Winstein CJ.** The Challenges of Timing in Clinical Neurorehabilitation Trials. ASNR Satellite Conference, 40<sup>th</sup> Annual Meeting Society of Neuroscience: The New Science of Brain Repair and Neurorehabilitation, Manchester Grand Hyatt, Randle Ballroom D & E, San Diego, CA, Nov 12<sup>th</sup>, 2010.
23. **Winstein CJ.** Trends and Perspectives in Neurorehabilitation Research: Translating Neuroscience into Practice. 2000-2010 The 10<sup>th</sup> Anniversary of the School of Physiotherapy at the Vita-Salute San Raffaele University, Milan, Italy, May 22, 2010
24. **Winstein CJ.** USC Biokinesiology and Physical Therapy. Overview of the Education/Research/Clinical Vision. 2000-2010 The 10<sup>th</sup> Anniversary of the School of Physiotherapy at the Vita-Salute San Raffaele University, Milan, Italy, May 22, 2010
25. **Winstein CJ.** Task-oriented training: Translating the science into practice in Neurorehabilitation. Neurology Group of the New Zealand Society of Physiotherapists. Half-day Workshop presented in Auckland, NZ, AUT University, Akoranga Campus, North Shore Nov 19, 2009
26. **Winstein CJ.** Task-oriented training: Translating the science into practice in Neurorehabilitation. Southern Physiotherapy Symposium 5 (SPSS). Pre-Conference Course presented in Queenstown, NZ, Millennium Hotel Nov 20, 2009
27. **Winstein CJ.** Leading the way in clinical trials: Research in stroke Neurorehabilitation, Southern Physiotherapy Symposium 5 (SPSS). Key note presentation, Queenstown, NZ, Millennium Hotel Nov 21, 2009.
28. **Winstein CJ.** Innovative approaches to Neurorehabilitation: What is on the horizon? Southern Physiotherapy Symposium 5 (SPSS). Queenstown, NZ, Millennium Hotel Nov 22, 2009

29. **Winstein CJ.** And Thompson L. Rehabilitation therapies in the 21st Century. Rancho Los Amigos National Rehabilitation Center and Rancho Los Amigos Foundation Present The 2009 Neurologic Rehabilitation Conference, Nov 14, 2009 Conference: What's new in Neurologic rehabilitation: Where we are, where we have been, and where we need to go. Downey, CA
30. **Winstein CJ.** Leading the way for clinical trials research in Stroke Neurorehabilitation. Rehab Grand Rounds, Long Beach Memorial Medical Center, Dec 9, 2009
31. **Winstein CJ.** "What research means to me and why?" Featured speaker at the Research Day 2008 Luncheon, School of Dentistry, University of Southern California, February 13, 2008, Los Angeles, CA.
32. **Winstein CJ.** Congresso Internazionale AIFI, AIFI International Congress, 9-10 October, 2008. Physical Therapist Practice in Neurology: Fundamental Principles and Therapeutic Approaches to the Rehabilitation in the Central Nervous System. Naxos Beach Resort, Giardini Naxos, Sicily, Italy. *Social Cognitive Neuroscience: Implications for Neurorehabilitation.*
33. **Winstein CJ.** Innovative Approaches to Neurorehabilitation: What is on the horizon? California Physical Therapy Association (CAPTA), Sept 27<sup>th</sup>, 2008, Oakland, CA.
34. **Winstein CJ.** Leading the way for clinical trials research in stroke Neurorehabilitation. The 1<sup>st</sup> Pacific Rim Rehabilitation Seminar at Tokyo Bay, The Forefront in NeuroRehabilitation, Tokyo, Japan. June 21<sup>st</sup>, 2008.
35. **Winstein CJ.** The Fifteenth Annual Joseph P. Van Der Meulen Symposium in Clinical Neuroscience, Focus on Stroke and Neurocritical Care, University of Southern California, May 17<sup>th</sup>, 2008. *Leading the way in clinical trials research in stroke Neurorehabilitation.*
36. **Winstein CJ.** Irma Ruebling Distinguished Speaker for 2008. Saint Louis University Department of Physical Therapy, St. Louis, MO. *Leading the way for clinical trials in rehabilitation.* April 27-28, 2008.
37. **Winstein CJ.** *Potential for rehabilitation with socially assistive robots.* IAS –ISF Workshop Series, Inaugural Workshop: Innovations in Rehabilitation Interventions, Jerusalem, Israel, Nov 28-Dec 5, 2007.
38. **Winstein CJ.** Reflections on Constraint-Induced Movement Therapy: Implications for Theory and Practice in Neurorehabilitation. Keynote presentation, Annual Conference, Israeli Physical Medicine and Rehabilitation Society, Tel Aviv, Israel, Nov 28<sup>th</sup>, 2007.
39. **Winstein CJ.** Neurology Group Plenary Session: Theory into Practice: Implications for Neurorehabilitation; Sports Group Concurrent Session: Neuroplasticity and Motor Skill Learning: Considerations for Sports Injury Rehabilitation. Australian Physiotherapy Association (APA) Conference, Cairns, Australia, October 4-6, 2007.
40. **Winstein CJ.** Motor Skill Learning: A Behavioral Basis for Neurorehabilitation and Neuroplasticity. Bobath 50, London, UK, Sept 6-7, 2007
41. **Winstein CJ.** Patient-Centered Practice. 2006 G. Maureen Rodgers Vision for Physical Therapy Lecture, Rancho Los Amigos National Rehabilitation Hospital, Downey, CA. November 7, 2006

42. **Winstein CJ.** Strategies for Driving Restorative Neural Plasticity after Stroke\_ From Animal to Human Research. Invited Symposium with Theresa Jones, American Psychological Association Convention, New Orleans, LA, August 13, 2006
43. **Winstein CJ.** Motor learning: Linking theory and basic research to clinical practice in stroke rehabilitation. Senior Scholar Lecturer, Motor Control and Learning Program for the North American Society for the Psychology of Sport and Physical Activity (NASPSPA), Denver, CO. June 3, 2006.
44. **Winstein CJ.** Patient-Centered Practice. 11th John Maley Lecture. Annual Conference and Exposition of the American Physical Therapy Association, Orlando Florida, June 23, 2006
45. **Winstein CJ.** The acquisition of skilled movements: From pre-clinical to clinical trials research in stroke rehabilitation. Harry Hooker Lecture, McMaster University, Hamilton Ont, Canada. May 25, 2006.
46. **Winstein CJ.** Neurorehabilitation Strategies for Stroke: Translating the Science into Practice. *Translational Research Seminar Series*, Dept of Neurology, USC, April 5, 2005.
47. **Winstein, CJ, Rizzo, AS, Stewart, JC.** Virtual Environments and Haptics in Neurorehabilitation. Virtual Reality Symposium, Haifa, Israel, March 2005
48. **Winstein CJ,** Pre-conference Course, Combined Sections Meeting, Tampa Florida, February, 2003: Translating research into clinical practice for patients post-stroke: Where are we? Neurology Report, 26, 226 (2002).
49. **Winstein CJ,** Two-day Symposium for rehabilitation professions: Neurorehabilitation, Embracing the Science behind the Practice, Heiden, Switzerland, August 15-16, 2003
50. **Winstein CJ,** California Chapter, APTA State Meeting, November 1st, 2003: Evidence-based practice for upper extremity recovery after stroke.
51. **Winstein, C.J.** Motor control and learning for neurologic rehabilitation: Embracing the science behind the practice. Association of Chartered Physiotherapists in Neurology (ACPIN), 2002 Congress and Exhibition of the Chartered Society of Physiotherapy, Birmingham, UK (October 11, 2002)
52. **Winstein, C.J.** NDT and the Evidence: Theory and Clinical Practice: Theories, Models, Principles of Normal Motor Control. American Physical Therapy Association, Cincinnati, OH (June 6, 2002, with Fisher, BF, and Campbell, SK)
53. **Winstein, C.J.** Discussant: Symposium: Kinesiologic Contributions to Stroke Rehabilitation. North American Society for the Psychology of Sport and Physical Activity (NASPSPA), (June 8, 2002, Hunt Valley, Maryland)
54. **Winstein, C.J.** with Morris, D.: Current issues in constraint-induced movement therapy for stroke recovery. U.C. Davis Medical Center. (February 8, 2002, Sacramento, CA)
55. **Winstein, C.J.** The application of constraint-induced (CI) movement therapy for patients with stroke: A skill learning perspective from the evidence. Grand Rounds, Rancho Los Amigos National Rehabilitation Center (January 24, 2002, Downey, CA)

56. **Winstein, C.J.** Motor control and learning for neurologic rehabilitation: The science behind the practice (Keynote, Physical Rehabilitation track); The application of constraint-induced (CI) movement therapy for patients with stroke (Clinical practice workshop). 22<sup>nd</sup> Annual Neurorehabilitation Conference on Traumatic Brain Injury, Stroke and Movement Disorders, Healthsouth Braintree Rehabilitation Hospital. (November 3, 2001, Boston, MA)
57. **Winstein, C.J.** Embracing the challenge: The science of physical therapy. Keynote lecture at the Annual Conference of Physical Therapy Association of the Republic of China, Taipei, Taiwan (September 23, 2001).
58. **Winstein, C.J.** Constraint-induced movement therapy (“forced-use”) and stroke recovery. A workshop at the Annual Conference of Physical Therapy Association of the Republic of China, Taipei, Taiwan, (September 23, 2001).
59. **Winstein, C.J.** & Wolf, S. Constraint-Induced Movement Therapy: A New Rehabilitation Paradigm? Sharp Rehabilitation-San Diego: (March 24, 2001)
60. **Winstein, C.J.** From Bench to Bedside: Motor learning, procedural learning, and learning-dependent cortical reorganization. Centre interdisciplinaire de recherche en réadaptation et intégration sociale (CIRRIIS) Quebec, U. Laval, CA (March, 26, 2001)
61. **Winstein, C.J.** Constraint-Induced Movement Therapy (“forced-use”) and Stroke Recovery California Rehabilitation Association: San Diego, CA, (January 25, 2001)
62. **Winstein, C.J.** Learning in the Development of Motor Behaviors: The Importance of Exploration and Experience. Duncan Seminar, Seattle, Children’s Hospital, WA (April 27, 2001)
63. **Winstein, C.J.** Movement Science and its Relevance to Physical Therapy, Northwestern, University—Physical Therapy Program Research Day (December 8, 2000)
64. **Winstein, C.J.** (with Wolf, S, and Taub, E) The Application of Constraint-Induced (CI) Movement Therapy for Patients with Stroke. American Academy of Physical Medicine and Rehabilitation Annual Conference, San Francisco, CA, (November 3, 2000).
65. **Winstein, C.J.** Motor control and learning: implications for the science and practice of physical therapy. Chapman University, Physical Therapy Students (Alison McKenzie, Ph.D.) April 17, 2000
66. **Winstein, C.J.** Aiming movement deficits in the ipsilateral upper extremity following stroke. Motor Control Laboratory, Arizona State University (Stelmach laboratory). (March, 30, 2000).
67. **Winstein, C.J.** Seminar/Workshop: Physical Therapy for the Neurologic Patient: Practice, Research, and the Profession: Bangkok, Thailand and Chang-Mai, Thailand, (August, 6-13, 1999)
68. **Winstein, C.J.** Three-day Seminar/Workshop: Motor Control and Learning in the Adult Neurologic Patient: Evidence-based Practice, Walzenhausen, Switzerland, (May 28-30, 1999).
69. **Winstein, C.J.** Procedural (Implicit) Skill Learning in Stroke and other Neurological Disorders, New York Columbia Teacher’s College, 20<sup>th</sup> Annual Conference on Motor Skill Acquisition, (April 17-18, 1999).

70. **Winstein, C.J.** Motor learning and recovery of function in stroke-hemiplegia. Symposium on Sensorimotor Function: Sensory Motor Neuroscience Centre, University of Birmingham, UK., (May 15, 1998).
71. **Winstein, C.J.** Recovery of upper extremity function in stroke: brain and behavior. School of Psychology Seminar, The University of Birmingham, UK., (May 26, 1998).
72. **Winstein, C.J.** Motor control and learning in stroke: Clinical Implications. Emory University, Program in Physical Therapy, (March 23, 1998).
73. **Winstein, C.J.** & Rogers, M. Eugene Michels Research Forum: Measurement in Stroke—Movement vs Disability. Combined Sections APTA—Boston, MA., (February 13, 1998).
74. **Winstein, C.J.** Ninth Annual Stroke Rehabilitation Conference: Focus on Functional Outcomes: Plenary Lecture: Motor Learning Issues: Can We Improve Functional Outcomes? Workshop: Recovery of Upper Extremity Control Post-Stroke: Predicting Outcomes and Determining Treatment Priorities, (October 16, 1997).
75. **Winstein, C.J.** Science into Practice Series: Rancho Los Amigos Medical Center: Motor control and learning in the rehabilitation of the adult neurologic patient. (September, 27-28, 1997).
76. **Winstein, C.J.** Kinematics of reaching in stroke, Invited speaker at "Workshop on Grasping: Neural Circuitry, Neural Models, and Human Brain Imaging". Sea Lodge Hotel, La Jolla, CA (November 8-10, 1995)
77. **Winstein, C.J.** Control of aiming movements-insights from pathology, Invited plenary lecture Gordon-Like conference, "Multisegmental Motor Control: Interface of Biomechanical, Neural, and Behavioral Approaches". Hampton school, New Hampton, NH. (August 14-19, 1995)
78. **Winstein, C.J.** Theoretical perspectives and assumptions on motor learning and motor control, Invited plenary lecture in clinical lecture series, Series II: Motor Learning and Motor Control. World Confederation for Physical Therapy Congress, Washington, D.C., (June 27, 1995).
79. **Winstein, C.J.** Effects of unilateral brain damage on the control of goal-directed hand movements, Forshungskolloquium (seminar) while a visiting scientist at the Institute for Psychologie, Max Planck Institute, Munich, Germany. (June 7, 1995)
80. **Winstein, C.J.** Invited Commentary following: Goodale, M. Separate visual pathways for perception and action in the cerebral cortex. Pre-conference workshop, "Sensory mechanisms in motor coordination: Implications for motor control and rehabilitation", Society for Neuroscience, Annual Meeting, (November 13, 1994)
81. **Winstein, C.J.** Motor control & kinematics. Lecture to USC Neurology Residents. Course coordinator, Dr. Scott Grafton. USC University Hospital, Los Angeles, CA (November 18, 1993)
82. **Winstein, C.J.** Effectiveness of augmented feedback for balance retraining. Invited workshop on Balance at Annual meeting of the Association for Applied Psychophysiology and Biofeedback. Los Angeles, CA, (March 27, 1993)

83. **Winstein, C.J.** Relearning motor skills after stroke. Aging and Disability Conference sponsored by the Rehabilitation and Training Center on Aging, Rancho Los Amigos Medical Center. Long Beach, CA, (March 19, 1993)
84. **Winstein, C.J.** Movement-related information processing capabilities post-stroke Pre-conference workshop entitled "Hemispheric specialization in movement control" Combined Section Meeting of the American Physical Therapy Association, (February 2, 1993)
85. **Winstein, C.J.** Motor learning considerations in physical rehabilitation: theoretical and empirical issues. Valley Hospital, Northridge, CA, (June 8-9, 1992)
86. **Winstein, C.J.** Perspectives on motor learning: implications for physical rehabilitation. Fifth distinguished lecturer, University of Washington, Pediatric Physical Therapy Leadership Training Program. Program funded by Department of Health and Human Services, Division of Maternal and Child Health. University of Washington, Seattle, WA, (April 30-May 1, 1992)
87. **Winstein, C.J.** Motor learning: models, principles, and implications for rehabilitation. University of Southern California, Department of Biokinesiology and Physical Therapy, "The CNS: Plasticity, Adaptation, and Learning", Los Angeles, CA, (May 14, 1991)
88. **Winstein, C.J.** Designing practice for motor learning: clinical implications. II Step Contemporary Management of Motor Control Problems. Norman, OK, (July, 1990)
89. **Winstein, C.J.** Sensorimotor contributions in the control of human grasp. Invited presentation at Teachers College, Columbia University, Department of Movement Science and Education Conference: Neuromotor processes in posture and movement. New York, NY. (April, 1990)
90. **Winstein, C.J.** Discoordination of multiarticulate movements in patients with diffuse cerebellar atrophy. First International Congress of Movement Disorders, Wash, D.C., (March, 1990)
91. **Winstein, C.J.** Anticipatory and task-specific sensorimotor processing in the control of human grasp. Invited presentation at the Pre-Neuroscience Satellite Conference: System Solutions to Motor Control Problems. Tempe, AZ., (October, 1989).
92. **Winstein, C.J.** Current concepts in motor control and motor learning applied to assessment and treatment. Invited presentation, Massachusetts Chapter American Physical Therapy Association, Hyannis, MA, (November, 1988).
93. **Winstein, C.J.** Triggered and voluntary neuromuscular responses in human precision grip. Invited presentation, Center for Engineering Design, University of Utah, Salt Lake City, UT, (August, 1988).
94. **Winstein, C.J.** Motor learning considerations in rehabilitation. Invited presentation at Recovery of Motor Control: Implications for Assessment and Treatment of the Neurological Patient, School of Allied Health Professions, University of Wisconsin, Madison, WI, (June, 1988).

### **Professional Societies**

2010-2020	American Heart Association/American Stroke Association
2007-present	American Society of Neurorehabilitation

2018-present	National Academy of Kinesiology
1994-present	Research Section of the American Physical Therapy Association
1990-2020	American Psychological Association
1988-1998	American Association for the Advancement of Science
1986-present	Neurology Section of the American Physical Therapy Association (now the Academy of Neurologic Physical Therapy)
1985-present	Society for Neuroscience
1983-present	North American Society for the Psychology of Sport and Physical Activity
1973-present	California Chapter American Physical Therapy Association
1972-present	American Physical Therapy Association (life-time member status)
1972-present	Phi Beta Kappa Honor Society

### **Professional and Scientific Activities**

#### Extramural Service

2021-	Associate Editor for <i>Translational Research in Rehabilitation (specialty section of Frontiers in Rehabilitation Sciences)</i> [negotiated delayed start until 2022]
2021-	Consultant, MicroTransponder Inc. for post-market study design, including patient selection, therapy dosing, therapy monitoring (e.g. wearables), telerehabilitation and other aspects of study design and conduct.
2020-	Review Editor for <i>Translational Research in Rehabilitation (specialty section of Frontiers in Rehabilitation Sciences)</i> .
2020-	Appointed as the Therapist member of the External Advisory Board for recently funded P2C grant, Center for Smart Use of Technology to Assess Real-world Outcomes (C-STAR). Zev Rymer and Rick Lieber are Co-PIs
2016-present	Appointed to the Data Monitoring Board for Enspire DBS Therapy, Inc. For the IDE study: Electrical Stimulation of the Dentate Nucleus area (EDEN) for Improvement of Upper Extremity Hemiparesis due to Ischemic Stroke: A Safety and Feasibility Study, Protocol REDD 0002, (IDE G150237)
2015-present	Appointed to the External Advisory Committee for recently funded P41, (now in its second cycle), Biomedical Technology Resource Research Center (Wolpaw, PI): National Center for Adaptive Neurotechnologies.
2015-	Invited and accepted a role as one of a select group of Senior Associate Editors to advise Alan Jette who will assume the role of Editor-in-chief of PTJ beginning in

- January, 2016 and his vision to make PTJ into the premiere journal in rehabilitation.
- 2015-2019 Appointed, standing member NIH Musculoskeletal Rehabilitation Study Section Panel (4-year term)
- 2015-2017 Consultant for St. Jude Medical Business Services, Inc. My role is to participate as a member of the Clinical Study Committee and to assist with designing SJM-sponsored clinical trials.
- 2013-2017 Appointed Member of the AHA/ASA Nursing and Rehabilitation Professions Committee of the Stroke Council for term dates, July 1, 2013-June 30, 2015. Re-appointed for another two year term, 2015-2017
- 2012-2016 Chair of the writing group for the Guideline on Stroke Rehabilitation and Recovery for the AHA (American Heart Association)/ASA (American Stroke Association)
- 2016-2018 Appointed President, American Society for Neurorehabilitation (ASNR)
- 2014-2016 Appointed Vice President, American Society for Neurorehabilitation (ASNR)
- 2012-2014 Appointed Secretary-Treasurer of the American Society for Neurorehabilitation (ASNR)
- 2015-Present Editorial Board Member for Archives of Physiotherapy. Archives of Physiotherapy is the official Journal of the Italian Society of Physiotherapy (Societa Italiana di Fisioterapia, S.I.F.)
- 2013-Present Editorial Board Member for new Journal, Journal of Motor Learning and Development
- 2011 Member NICHD workshop on Diagnostics and Therapeutics (identify for the next decade, ambitious but realistic scientific opportunities regardless of the Institutes current portfolio)
- 2011-2014 Editorial Board Member for new Journal, the *Italian Journal of Physiotherapy* (Inaugural issue, May 2011).
- 2010 Member-Clinical Research Network Committee of the Orthopedic Section of the APTA.
- 2010-present Editorial Board Member for Neurorehabilitation and Neural Repair (re-appointed, 2013 by new Editor and Chief, Randy Nudo)
- 2010-2016 Associate Editorial Board of *Frontiers in Movement Science and Sport Psychology*
- 2009-present Evidence Database to Guide Effectiveness (EDGE), member of task force and now Core member. APTA Academy of Research



- 2007 Facilitator for Pediatric Research Summit II, Alexandria, VA, October 2007
- 2006-2008 Member, Advisory Board for Northstar Neuroscience, Inc.
- 2005-2009 Member, Advisory Board for National Center for Medical Rehabilitation Research (NCMRR). National Institutes of Health.
- 2003-2005 Co-chair, program committee for: III STEP SUMMER INSTITUTE ON TRANSLATING EVIDENCE INTO PRACTICE: LINKING MOVEMENT SCIENCE AND INTERVENTION, scheduled for July 15-21, 2005 and sponsored by the Pediatrics and Neurology Sections of the APTA. (see <http://www.iiistep.org> ). Submitted NIH R13 conference grant December 15, 2003 for conference funding.
- 2004 Study Section Review Panel, National Institutes of Health, Musculoskeletal Rehabilitation Study Section (MRS)
- 2003-2012 Member external advisory board for NIDRR funded MARS (Machines Assisting Recovery from Stroke)-RERC, Zev Rymer, MD, PI
- 2003 Member advisory panel, for NIDRR funded RRTC Aging-related Changes in Impairment for Persons Living with Physical Impairments -Bryan Kemp, PhD, PI
- 2003 Invited participant: Task Force on Childhood Motor Disorders (Terry Sanger, Stanford U., NIH U grant, January 2003)
- 2003 Study Section Review Panel, National Institutes of Health, Special Emphasis Panel, RFA 02-023. Pharmacological Approaches To Enhance Neuromodulation In Rehabilitation.
- 2000-2004 American Physical Therapy Association, APTA, Awards Committee—Research Subcommittee
- 2000 Study Section Review Panel, National Institutes of Health, BBBP-7 (Biobehavioral and Behavioral Processes IRG) and Special Emphasis Panel, ZRG1-SSS5-04 (Rehabilitation small business grants) study section.
- 1999-2004 Chair, Data Monitoring and Safety Committee  
Locomotor Therapy Trial for Spinal Cord Injury (NIH U01 HD37439).
- 1997-2003 Appointed Editorial Board Member for *Physical Therapy*
- 1995-1998 Member, Postdoctoral Fellowship and Doctoral Scholarship Committee, American Physical Therapy Association
- 1994-1996 Chair, research committee, Neurology Section of the American Physical Therapy Association
- 1995 Invited participant--Consensus conference on Doctoral Level (DPT) Physical Therapist Professional Education, American Physical Therapy Association,

- Sept 21-24, 1995
- 1994 Ad Hoc Study Section member, National Institutes of Health, Grant reviewer
- 1994 Invited participant--"Stroke Think Tank". Alexandria, VA. Jan 29-30, 1994.
- 1994 External member of doctoral degree committee: McMaster University, Ontario, Canada (Laurie Swanson)
- 1993 Member, Search Committee for Director of Physical Therapy, Rancho Los Amigos Medical Center, Downey, CA
- 1993 Invited participant--"Research Summit", research agenda for the profession Alexandria, VA, Dec 3-5, 1993
- 1992 Grant Reviewer for Funding Agency: Ministry of Health, Ontario, Canada Health Care Systems Research Grant
- 1992-present Affiliated Scientist, Center for Research in Clinical Biokinesiology, Rancho Los Amigos Medical Center, Downey, CA
- 1991 American Physical Therapy Association Task Force on Content of Postbaccalaureate Degree Entry-Level Curricula: Neurology Content, Member
- 1990-1991 Co-coordinator and guest editor for special series of Physical Therapy on movement science, published in December 1990-March 1991.
- 1984-1986 Research Consultant, Rehabilitation Engineering Center, Rancho Los Amigos Medical Center, Downey, CA

### **Referee/Service for Professional Journals/Publications**

- 1992-1995 Consulting editor for Journal of Motor Behavior
- 1988-present Periodic manuscript reviewer for scientific journals including:  
 Acta Psychologica  
 Am J. Phys Med Rehabil  
 Archives of Phys Med and Rehabil  
 Behavioural Brain Research  
 Brain  
 eLife  
 Experimental Brain Research  
 Journal of Experimental Psychology: Learning, Memory and Cognition  
 Journal of Motor Behavior  
 Journal of Applied Biomechanics  
 Journal of Gerontology: Medical Sciences  
 Journal of Rehabilitation Research and Development  
 NeuroImage  
 Neurorehabilitation and Neural Repair  
 Neuropsychologia  
 Neuroscience

Perceptual and Motor Skills  
 Quarterly Journal of Experimental Psychology  
 Research Quarterly for Exercise and Sport  
 Physiotherapy Theory and Practice  
 Stroke

- 1993 Chapter reviewer for Williams & Wilkins, *Motor Control: New Models for Rehabilitation*, Shumway-Cook & Woollacott.
- 2010 Chapter reviewer for Oxford University Press, *Brain Computer Interfaces for Communication and Control* (J. Wolpaw & E. Wolpaw, Eds).
- 1992 irregular Invited commentator for *Physical Therapy*

### **Department Committees/University Service**

- 2018-2019 Appointed Internal member of the Academic Review Committee for the Department of Psychology (USC)
- 2015-2017 Appointed Member, Quantitative Social Sciences Panel of the University Committee on Appointments, Promotions, and Tenure (UCAPT) for the 2015-2016 academic year; re-appointed 2016-2017
- 2016-2020 Appointed Chair Research Advancement Committee, Division Biokinesiology and Physical Therapy
- 2016-present Appointed Chair of the T&P Committee for the Division
- 2013-2014 Appointed Member, Quantitative Social Sciences Panel of the University Committee on Appointments, Promotions, and Tenure (UCAPT) for the 2013-2014 academic year.
- 2011-2016 Member, newly constituted Division Research Activity Committee (RAC), BKN & PT
- 2010-2012 Member University Research Committee, USC. Jointly sponsored by the Office of the Provost and the Academic Senate
- 2009-2010 Co-Chair Subcommittee A, University Research Committee, USC, 2009-2010 academic year—Jointly sponsored by the Office of the Provost and the Academic Senate
- 2007-2009 Member-at-large, Executive Committee of the Academic Senate
- 2005-2020 Member, Executive Committee for Department/Division
- 2002 Member, Department Faculty search committee
- 2001-2019 Member, USC Ambassador to the President

2001	Chair, Courseware Policy Committee (Sub-committee of Research Committee)
2000-2002	Research Subcommittee of Academic Senate
1999-2000	Chair, Department of Biokinesiology and Physical Therapy Faculty Search Committee
1999-2003	Chair, Biokinesiology Committee (MS, Ph.D.), Department of Biokinesiology and Physical Therapy
1999	Member, Faculty Advisory Panel for Independent Health Professions Strategic Planning
1998-2002	Member, Independent Health Professions Interdisciplinary Research Advisory Panel
1998-1999	President, Medical Faculty Women's Association, Health Sciences Campus, USC
1995	Co-Chair, Advanced Studies Committee, Department of Biokinesiology and Physical Therapy, University of Southern California
1994-1995	Co-Chair, Professional Development Committee, Medical Faculty Women's Association
1994	Department Council (BKN) representative to Health Science Caucus
1993	Independent Health Professions Academic Senator
1993-1994	Chair, Advanced Studies Committee, Department of Biokinesiology and Physical Therapy, University of Southern California
1993-1994	Search Committee, Member, Department of Biokinesiology and Physical Therapy, University of Southern California
1993	Faculty Merit Committee, Department of Biokinesiology and Physical Therapy, University of Southern California
1992	Chair, Semester III Committee, Department of Biokinesiology and Physical Therapy, University of Southern California
1990-2003	Member, Medical Faculty Women's Association, University of Southern California
1990-2004	Member, Admissions Committee, Department of Biokinesiology and Physical Therapy, University of Southern California

### **Teaching Activities Courses Taught**

2007-2020	BKN 550 Neurobehavioral Basis of Movement (Core Course) 4 units. Course Director/Coordinator, Division of Biokinesiology and Physical Therapy, University of Southern California
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- 1992-2016 Course Instructor  
BKN 599/593: Behavioral Basis of Motor Control and Learning (4/3 units/graduate). Department of Biokinesiology and Physical Therapy, University of Southern California
- 2017-2020 BKN 593 combined with BKN 562—Neurobehavioral Basis of Motor Control and Learning including Neuroplasticity and Neural Repair (with Fisher)
- 1995-2015 Course Lecturer  
Unit I or III, PT529 Life Span Motor Control (3 units/graduate), Department of Biokinesiology and Physical Therapy, University of Southern California
- 1993-present Advisor  
BKN 790, 794 (only doctoral students) Research/Dissertation, Department of Biokinesiology and Physical Therapy
- 1990-2004 Course Instructor/Director/Coordinator  
PT531/569/BKN550 Fundamentals of Neuroscience (4 units/graduate), Department of Biokinesiology and Physical Therapy, University of Southern California
- 1991-1992 Course Coordinator  
BKN 576. Seminars in Biokinesiology (1 unit/graduate), Department of Biokinesiology and Physical Therapy, University of Southern California
- 1990-present Course Instructor  
BKN 590, 599, 656, 672, Directed Research/Independent studies/readings in Pathokinesiology (1-4 units/graduate), Department of Biokinesiology and Physical Therapy, University of Southern California

### **Post-Doctoral Research Associates and Career Development Fellows Sponsored**

- 2019-Present Marika Demers, PhD, OT, postdoctoral fellow in Motor Behavior and Neurorehabilitation Laboratory, Funding, Fond de la Recherche du Quebec en Sante (01/09/2019-31/08/2021); research projects: Impact of socio-cognitive factors on upper limb use after stroke: an ecological study; Development of an online mindfulness program for stroke survivors and their caregivers.
- 2019-2022 Primary mentor for Natalia Sanchez, PhD, CTSI MCD Scholar, Mentored Career Development in Clinical and Translational Science (MCD-CTS)
- 2018-Present Lauri Bishop, PhD, DPT, postdoctoral fellow in Motor Behavior and Neurorehabilitation Laboratory. Research project: weaRablEs for Stroke functiOn in the natuRaL Environment (RESTORE).
- 2017-Present Co-mentor for Szu-Ping Lee on his K01 Career Development Award. *Motor Learning in Individuals with and at risk of lower limb loss: Implications for Amputee Rehabilitation.*

- 2017-Present Co-mentor for Jessica Cassidy (Postdoc in Cramer lab, UC Irvine) on her NIH Career Development K99/R00, Brain Network Connectivity Measures in Early Stroke Rehabilitation. Awarded, Fall 2017.
- 2016-2018 Research mentor to Barbara Sargent, PhD, PT, Assistant Professor of Clinical Physical Therapy (without tenure) during her tenure as a KL2 Scholar and her transition to the K12 program.
- 2012-2014 Sue Duff, EdD, OT, PT, Division of BKN & PT, USC (Post-Doctoral Fellow (NIH/NICHHD/NCDRR T32 HD064578), Occupational Science & OT, USC)
- 2009-2013 Eric Wade, PhD. Division of BKN & PT, USC (Supported through a 2 year NIH/NICHHD Diversity Supplement to ICARE)
- 2002-2005 Yun Dong, MD, PhD. Department of Biokinesiology and Physical Therapy, University of Southern California.
- 2001-2005 Allan Wu, MD. Dept of Neurology, University of Southern California, NIH K23 Mentored Clinical Scientist Training

#### **Graduate Students (M.S./Ph.D.) Sponsored**

- 2015-2021 Rini Varghese (Ph.D) in Biokinesiology Division of BKN & PT, USC
- 2014-2019 Andrew Hooyman (Ph.D) in Biokinesiology, Division of BKN & PT, USC
- 2013-2016 Helen Bacon (Ph.D) in Biokinesiology, Division of BKN & PT, USC [Withdrew from the Program after a year-long medical leave]
- 2012-2017 Bokkyo Kim (Ph.D) in Biokinesiology, Division of BKN & PT, USC
- 2011-2017 Dorsa Berukhim-Kay (Ph.D) in Neuroscience Graduate Program, USC.
- 2010-2017 Yi-An Chen (Ph.D) in Biokinesiology, Division of BKN & PT, USC
- 2009-2013 Matthew Konersman (Ph.D) in Biokinesiology, Division of BKN & PT, USC (withdrew before degree completion to return to full time clinical practice)
- 2009-2011 Charalambos Charalambous (PhD, switched to MS following 1st year Screening in Nov, 2010), Division of BKN & PT, USC
- 2005-2011 Katie Garrison (Ph.D) Neuroscience Graduate Program, USC. Co-Chair with L. Aziz-Zedah
- 2005-2010 Erica Pitsch, MS, (Ph.D\*) in Biokinesiology, Department of Biokinesiology and Physical Therapy, University of Southern California [\*Converted to PPDPT, July 09]
- 2005-2011 Shu-Ya Chen, M.S. (Ph.D) in Biokinesiology, Department of Biokinesiology and Physical Therapy, University of Southern California.

- 2004-2007 Caroline Tan, (M.S) in Biokinesiology, Department of Biokinesiology and Physical Therapy, University of Southern California.
- 2004-2010 Hui-Ting Goh, (Ph.D) in Biokinesiology, Division BKN & PT, USC. Co-chair with K. Sullivan
- 2003-2010 Shailesh Kantak, M.S, PT, (Ph.D). [Co-Chair with Kathy Sullivan, PhD, Guidance Committee], Department of Biokinesiology and Physical Therapy, University of Southern California.
- 2003-2010 Jill Stewart, M.S (Ph.D) in Biokinesiology and Physical Therapy, Department of Biokinesiology and Physical Therapy, University of Southern California
- 2002-2007 Chien-Ho (Janice) Lin, M.S. (Ph.D) in Biokinesiology and Physical Therapy, Department of Biokinesiology and Physical Therapy, University of Southern California
- 2001-2007 Jarugool Tretriluzana, M.S. (Ph.D) in Biokinesiology and Physical Therapy. Department of Biokinesiology and Physical Therapy, University of Southern California
- 1998-2004 Dorian Rose, M.S., P.T. (Ph.D) in Biokinesiology. Department of Biokinesiology and Physical Therapy, University of Southern California
- 1997-2001 Chelle Prettyman, B.S (M.S) in Biokinesiology. Department of Biokinesiology and Physical Therapy, University of Southern California
- 1996-2001 Lara Boyd, MPT (Ph.D.) in Biokinesiology. Department of Biokinesiology and Physical Therapy, University of Southern California.
- 1994-2001 Somporn Onla-Or, P.T. (M.S., and Ph.D.) in Biokinesiology. Department of Biokinesiology and Physical Therapy, University of Southern California.
- 1993-2000 Beth Fisher, MPT (Ph.D.) in Biokinesiology. Department of Biokinesiology and Physical Therapy, University of Southern California.
- 1992-1996 Jody Cormack P.T. (M.S.) in Biokinesiology. Department of Biokinesiology and Physical Therapy, University of Southern California.
- 1992-1998 Katherine Sullivan, P.T., M.S. (Ph.D.) in Biokinesiology Department of Biokinesiology and Physical Therapy, University of Southern California.
- 1991-1996 Mary Hudson P.T. (M.S.) in Biokinesiology. Department of Biokinesiology and Physical Therapy, University of Southern California.
- 1991-1994 Mary Ruth Velicki P.T., (M.S.) in Biokinesiology. Department of Biokinesiology and Physical Therapy, University of Southern California.
- 1991-1994 Angela Weng (Huang) P.T., (M.S.) in Biokinesiology. Department of Biokinesiology and Physical Therapy, University of Southern California.

1990-1995 Patricia S. Pohl, M.S. P.T. (Ph.D.) in Biokinesiology. University of Southern California. For Administrative reasons, this student's final dissertation defense was administered by John Walsh, Ph.D.

### **MPT Research Projects Sponsored**

[In 1995, the entry-level MPT program was terminated and replaced by the 3-yr DPT program and research projects were eliminated]

- 1994-1996 Robert Love, Adam Flores. "An investigation of hemispheric differences in the performance of reciprocal aiming movements: a kinematic analysis."
- 1994-1996 Bridget Brown, Raymond Crabbs, James Kantor, Julie Solari. "Force variability in a partial weight bearing task."
- 1993-1995 Alicia Beth, Kenna Brinkman, Julie Rister. "Discrete goal-directed aiming movements: a kinematic analysis".
- 1992-1994 Cardinale, C., Green, A., Sauber, C., Wong, L. "Effectiveness of knowledge of results or concurrent feedback during practice of a partial weight bearing task".
- 1991-1993 Betsy Chang, Joyce Uemera, "Effect of sampling rate and filtering on the shape of the phase plane plot: interpretation of lower extremity control mechanisms during level locomotion."
- 1991-1992 Scott Christensen, Neil Fitch, "Effects of summary knowledge of results on the acquisition and retention of partial weight bearing during gait".
- 1990-1991 Shana Wehr, Michele Gold, "A clinical test to quantify muscle fatigue in healthy and post-polio subjects."
- 1990-1991 Risa Marie Clayton, Kathryn Maria Driessen, "Vicon measurement error and reliability of joint kinematics in free and fast walking."
- 1990 David Scarth, Dan Gross, "Observational gait analysis: A comparison of two methods of instruction".

### **MPT Research Proposals Sponsored**

- 1993-1995 Ruby Pacio, "Reversal of learned nonuse on the affected lower extremity through a forced-use gait oriented training program in patients with chronic hemiplegia".
- 1992-1994 Kelly Pratt, "Effects of intense, dynamic balance retraining on locomotor patterns of patients with chronic hemiplegia".
- 1993-1995 Katie Hetterich, "Effects of posterior walker on gait characteristics in geriatric subjects."
- 1993-1995 Jenevieve Heck, "Effects of a 24 week walking program and gait training on the oxygen cost of community ambulation in a population of individuals post-CVA".
- 1993-1995 Leslie Dykstra, "Effects of task specific training on symmetry and temporal characteristics of gait in individuals with stroke six months post incident".



1992-1996 Roselyn Beesley, "Effects of dynamic standing balance training on functional balance as measured by the Berg Balance Scale in individuals post CVA."

### Service on Graduate Student Committees

2021-Present PhD Guidance Committee, Judy Zhou (BKN)  
 2020-Present PhD Guidance Committee, Yannick Darman (BKN)  
 2018-Present PhD Dissertation Committee, Marcelo Rosales (BKN)  
 2018-Present PhD Dissertation Committee, Kristina Shkirkova (NFP)  
 2018-Present PhD Dissertation Committee, So Young Choi (NGP)  
 2018-2019 PhD Dissertation Committee, Vincent Enachescu (NGP)  
 2015-2017 PhD Dissertation Committee, Panthea Haydari (NGP)  
 2012-2013 External Reviewer for Dissertation of Orit Elion of Haifa University, Haifa, Israel  
 2007 Ph.D Qualifying Exam External Referee, Katie Keetch, McMaster University, Hamilton, Ont. Canada  
 2006-2008 Ph.D. Guidance Committee, Marta, Vuckovic, Neuroscience, Cell and Neurobiology  
 2006-2009 Ph.D. Guidance Committee, Kelly Kent, Neuroscience, Cell and Neurobiology  
 2003-2006 Ph.D. Examination and Dissertation Committee, Liz Davis, Neuroscience, Cell and Neurobiology  
 2004-2006 Ph.D. Examination and Dissertation Committee, Emily Mower, Engineering and Computer Science  
 2003-2005 Ph.D. Examination and External Dissertation Committee, Michelle Harris-Love, Department of Physical Therapy and Rehabilitation Science, University of Maryland, Baltimore, MD.  
 2002-2003 Ph.D Examination and Dissertation Committee, Chad Jenkins, Engineering and Computer Science  
 2002 Ph.D. Examination, External Examiner, Martin LaFleur, University Laval, Quebec, Canada  
 2001-2003 Ph.D. Examination and Dissertation Committee, Kathleen Ganley, Biokinesiology and Physical therapy  
 1997-1998 Examination and Dissertation Committee, Amanda Bishoff, Computer Science  
 1993-1995 M.S. Project Committee, Susan Herman M.S. Biokinesiology and Physical Therapy  
 1993-1999 Examination and Dissertation Committee, Barry Munkasy, Exercise Science  
 1992-1994 M.S. Project Committee, Sharon Demuth M.S., Biokinesiology and Physical Therapy  
 1991-1995 M.S. Project Committee, Gay Scribner M.S., Biokinesiology and Physical Therapy  
 1994-1998 M.S. Project Committee, Mehrnaz Mahdad, Biokinesiology and Physical Therapy  
 1992-1993 M.A. Thesis Committee, Dawn Irvine, Exercise Science  
 1990 Examination and Dissertation Committee, Patrick J. Smith, Exercise Science  
 1992 M.A. Thesis Committee, Gitu Bhavnani, Occupational Therapy  
 1991 M.A. Thesis Committee, Carolyn Barbieri, Exercise Science