

1. Personal history

Name-

Susan E. Ladley, MD
(Formerly Susan E. O'Brien, MD)

Current Position-

Associate Professor and Associate Residency Director, University of CO Dept PM&R
Attending Physician, Rehabilitation Services
Denver Health Medical Center
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2. Education

State University of New York at Buffalo 1988
BS in Physical Therapy, summa cum laude

University of Colorado Health Sciences Center 1994
School of Medicine
Medical Doctorate with Honors

RESIDENCY-

Saint Joseph Hospital, Denver, CO 1994 - 1995
Preliminary year in Internal Medicine

New England Medical Center
Department of Rehabilitation Medicine 1995 - 1996

University of Colorado Health Sciences Center
Department of Rehabilitation Medicine 1996 - 1998
Chief Resident 1997 - 1998

FELLOWSHIP-

Craig Hospital, Englewood, CO 1999
Neurotrauma Rehabilitation

3. Academic appointments

University of Colorado Denver School of Medicine
Department of Physical Medicine and Rehabilitation-
Associate Professor 2010- present
(Assistant Professor 2001-2009 and Clinical Faculty from 1998-2001)

4. Hospital, government or other professional positions

Denver Health Medical Center	2001 - Present
ECHCS Denver VA Medical Center	2001 - Present
University of Colorado Hospital	1998 - Present
Craig Hospital	1999 - 2008
Swedish Medical Center	1999 - 2001
SCCI Hospital	1999 - 2001
Spalding Rehabilitation Hospital	1997 - 2001
Saint Anthony's Medical Center	1997 - 2001
Mediplex Rehabilitation Hospital	1996 - 1998

5. Honors, special recognitions and awards

Range of Motion Project Empowerment Through Mobility Partner	2016
Team Award for Denver Health clinical program development	2013
Team Award project for Denver Health Complex Discharges	2009
Clinical Performance Award from the DVAMC PM&R supervisors	2003
Alpha Omega Alpha	1994
Award for Excellence in Geriatrics	1994
Citation for Academic Excellence	1992
Highest Departmental Honors in Physical Therapy	1988

6. Membership in professional organizations

American Academy of Physical Medicine and Rehabilitation	1995 - Present
Brain Injury Alliance of Colorado	2001 - Present
Conference Committee 2004, 2005, 2007	
Academy of Spinal Cord Injury Professionals	2001 - Present
Academy of Academic Physiatrists	1995 - 1998

7. Major Committee and Service Responsibilities

Associate Residency Director	2012- Present
Physician Trainer- Denver Health "Relations" Program	2018
Brain Injury Alliance of Colorado Board of Directors	2012- 2014
American Academy of PM&R CNS Council Advisory Group	2009- 2013
Departmental PMR Residency Education Committee	2002- Present
Departmental PMR Residency Recruitment Committee	2005- 2016
Departmental PMR Residency Clinical Competency Committee	2012- Present
Brain Injury Association of Colorado Conference Committee	2004-2007

8. Licensure and board certification

Colorado State Medical License	1996
Diplomate, American Board of Physical Medicine and Rehabilitation	1999
Certification in Subspecialty of Spinal Cord Injury Medicine, ABPMR	2002
Level II Accreditation Colorado Division of Workers Compensation	2008
Certification in Subspecialty of Brain Injury Medicine, ABPMR	2014

9. Review and referee work

Peer Reviewer for Journal of Spinal Cord Medicine	2004- Present
Peer Reviewer for Journal of Patient Safety in Surgery	2014- 2016

10. Invited extramural lectures, presentations and visiting professorships

Denver Health Neurotrauma	2016
Craig Hospital Board Retreat Vail, CO	
Work Related Mild Traumatic Brain Injury	2015
Brain Injury Summit Vail, CO	
Assessment and Management of Acute Spinal Cord Injury	2014
Improving Outcomes, Saving Lives Critical Care Conference Denver, CO	
Mild Traumatic Brain Injury / Concussion	2014
CCMSI Greenwood Village, CO	
Management of Mild TBI	2014
Denver Health / Vail Valley Medical Trauma Series Vail, CO	
Management of Mild TBI in the Injured Worker	2014
American College of Occupational Medicine Conference San Antonio, TX	
Mild Traumatic Brain Injury Treatment Guidelines	2013-2015
Colorado Division of Workers Compensation Level II Reaccreditation Course Denver, CO	
Neurologic Impairment	2013- 2015
Colorado Division of Workers Compensation Level II Accreditation Course Denver, CO	
Mild Traumatic Brain Injury / Concussion	2013
Disability Management Employer Coalition Denver, CO	
Case Studies in Trauma- How the System Should Work- Rehabilitation	2012
Denver Health / Yampa Valley Medical Center Trauma Symposium Steamboat Springs, CO	
Management of Mild Traumatic Brain Injury	2012
Pinnacle Assurance Provider Showcase Denver, CO	
Neurotrauma Rehabilitation Issues in the Critical Care Setting	2011
Improving Outcomes, Saving Lives Critical Care Conference Denver, CO	
Management of Mild Traumatic Brain Injury	2011
City of Denver Department of Risk Management Denver, CO	
Case Studies in Trauma- How the System Should Work- Rehabilitation	2011

Denver Health / Yampa Valley Medical Center Trauma Symposium Steamboat Springs, CO	
Management of Mild Traumatic Brain Injury	2011
Rocky Mountain Academy of Occupational & Environmental Medicine Conference Aurora, CO	
Muscle Disorders	2010
Doctors Demystify Upper Extremity Nerves Conference Denver, CO	
Numbness and Weakness/ Spasticity	2009
Doctors Demystify Upper Extremity Nerves Conference Denver, CO	
Blast Injuries	2005
Brain Injury Association of Colorado Conference Vail, CO	
TBI 101	2005
Aurora Mental Health education project sponsored by Colorado State Department of Health and Human Services Aurora, CO	
Rehabilitation Issues in Traumatic Brain Injury	2005
Central Colorado Chapter American Rehabilitation Nurses Conference Englewood, Colorado	
Current Trends in Multiple Sclerosis Care	2004
Caregiver's Symposium sponsored by the Rocky Mountain MS Center And National MS Society	
Overview of Selected Neurological Disorders	2003
Denver VA Regional Office Rating Board	
Evaluation for Driving Readiness after Brain Injury	2001
Spalding Community Foundation Driver Reintegration Symposium Arapahoe County, CO	
Spasticity Management	2001
Central Colorado Chapter American Rehabilitation Nurses Conference Englewood, Colorado	

11. Teaching record

- **Major presentations to house officers and hospital staff-**
 - Stroke Rehabilitation- PMR residents October 2017
 - Neuroanatomy- PMR residents October 2017
 - Stroke Syndromes- PMR residents October 2017
 - Consultation in Acute Brain Injury- PMR residents September 2017
 - Introduction and Overview of TBI- PMR residents September 2017
 - Caring for Spinal Cord Injury Patient- Palliative Care lecture Jan 2016
 - Work related Mild TBI- PMR residents November 2014
 - Complications After Severe Limb Trauma- PMR Case Review 2009, 2014
 - Challenges of SCI Management in the Acute Hospital Setting- Quality Improvement Conference for Univ of CO Dept PMR & DH Staff, June 2014
 - Topics in Management & Complications in SCI- Ortho Residents June 2014
 - Hospital Management of Traumatic Brain Injury- DH Hospitalists Mar 2013
 - Management of Mild Traumatic Brain Injury- PMR Residents Dec 2013
 - Medical Complications of Spinal Cord Injury- Ortho Residents Nov 2013

- Spinal Cord Injury Overview- University of CO Orthopedic residents September 2011, 2013
- Concussion and Mild TBI: Short and Long Term Consequences and Management- Denver Health Trauma/Critical Care Outreach Lecture Jan 2011
- Management and Consultation in Traumatic Brain Injury- PMR residents, September 2015, October 2013, April 2012, November 2010, March 2009, October 2007 and November 2004
- Manual Therapeutics- PMR residents October 2008
- Introduction to Gait Analysis- PMR Residents August 2007, July 2013, 2014
- The Musculoskeletal System and Immobility- PMR residents 2007
- Blast Injuries- PMR Grand Rounds, May 2005
- Traumatic Brain Injury Rehabilitation- Neurology residents, 2004
- Clinical Correlates- Brain Injury and Neuroimaging- PMR residents, November 2004
- Acute rehabilitation of the Brain Injured Patient- PMR residents, April 2003 and November, 2004
- Rehabilitation Issues in Multiple Sclerosis- PMR residents, 2003
- Knee examination and clinical correlates- PMR residents, 2002
- Fundamentals of Nerve Conduction Studies- PMR residents, 2001 and 2010
- **Major presentations to graduate students-**
 - Rehabilitation Issues In Brain Injury- Physical Therapy doctoral program 2004, 2010-2017
 - Medical Markers for Cognitive Disorders- VA Psychology Interns 2008-2013
 - Differential Diagnosis in Practice- Panelist on communication- Physical Therapy doctoral students February 2009
- **State ward/clinic attending duties-**
 - **Inpatient consultation medical director-** 50 weeks per year 2001-present with bedside teaching of upper level residents. **Denver Health (2006-present)** Follow acute trauma patients from ICU until discharge. My practice focuses on improving the acute care of neurotrauma patients. **Denver VA (2001-2006)** General rehabilitation population - efficient and considered triage of referrals from multiple sources. Acted as a resource to internal departments, active duty and private referral entities. High number of amputees- anticipating and optimizing function after definitive surgery.
 - **Denver Health Rehabilitation Clinic-** serving the outpatient rehabilitation needs of those with long term disability from trauma, amputation and neurologic disease 2007-2009, 2013- 2017
 - **Medical director for the Denver VA Traumatic Brain Injury Clinic-** comprehensive team evaluation and treatment of >300 individuals with sub-acute to chronic brain injury, >10 hours per month, 2001- 2006
 - **Electromyography-** 8 to 12 hours per week, 2001-present
 - **Medical director for the ECHCS Denver VA Multiple Sclerosis multidisciplinary clinic-** comprehensive longitudinal outpatient care of >200 individuals disabled by this progressive disease- >24 hours per month, 2001-2006
 - **Occupational Medicine** clinic addressing outpatient rehabilitation needs post catastrophic injury, 18 hours per month 2007-2017
 - **Orthotics clinic** prescription of braces in complicated cases- 8 hours per month 2001- 2006

- **Spasticity Clinic-** outpatient injection procedures, 4 hours per month, 2001-2006, 2 hours per month 2015- present
- **Neurologic Rehabilitation VA Clinic-** serving the outpatient rehabilitation needs of the neurologically disabled, 8 hours per month, 2001-2006
- **Key administrative positions-**
 - Associate Residency Director for PMR 2012-present
 - Coordinator for PMR Didactic curriculum 2009-present
 - Course director for PMR didactics in Traumatic Brain Injury Rehabilitation, 6- 10 hours, 2001- 2009, 2013, 2017
 - Course director for 6-8 hour Manual Muscle Testing course for PMR residents, yearly 2001- 2017
 - Course director for Stroke Rehabilitation, 6 hours, 2017
 - Course director for Occupational Medicine course for PMR residents 3 hours 2014, 2018
 - Course director for 6 hour PMR didactic section on Psychiatric Therapeutics, 2005, 2007, 2008
 - Course director for 10 hours PMR didactics in Spinal Cord Injury Rehabilitation 2010, 2012, 2013, 2014
 - Course director for 4 hours Spinal Cord Injury didactics for Orthopedic training program 2011-2014
 - Course director for 2 hours PMR didactics in Geriatrics and Oncology rehabilitation- 2013

12. Research

Safety officer for University of Colorado multi center study: “Optimizing Physical Activity Outcomes after Total Knee Arthroplasty” PI- Cory Christiansen PT, PhD

Co-investigator for University of Colorado multi center study: “Activity and Function after Lower Limb Amputation” PI- Cory Christiansen PT, PhD

Principal Investigator for Denver Health in two multi-center Phase II clinical trials for the treatment of acute spinal cord injury:

Asubio Pharmaceuticals- ASBI 603 study- Enrollment completed January 2015, data analyzed.

Acorda Therapeutics MAGNIFY study- Enrollment complete October 2014

13. Grant support

Traumatic Brain Injury and Post Traumatic Stress Disorder- Exploration of a Potential Combination Syndrome

Role: Co- investigator

Principal investigator: Lisa Brenner, PhD

Time and amount: <5% effort. 50 K Grant

Funding source: Colorado Brain Injury Trust fund. 7/05- 7/07.

Northern California Traumatic Brain Injury Model System of Care

Project: Impact of Post Traumatic Seizures

Principal Investigators: Tamara Bushnik PhD, Thao Duong, MD and Jeffrey Englander MD of Santa Clara Valley Medical Center
Role: Site director- responsible for COMIRB approval and supervision of data collection
Time and amount: <2% donated. Total direct costs of multi center project \$365K.
Funding source: Department of Education, National Institute on Disability and Rehabilitation Research (#H133A020524)

Rocky Mountain Regional Traumatic Brain Injury Model System

Role: Denver Health liaison / clinical coordinator
Co-project directors are Gale Whiteneck PhD and Cynthia Harrison-Felix PhD of Craig Hospital.
Time and amount: in kind.
Funding source: Department of Education, National Institute on Disability and Rehabilitation Research, 2007-12. Total direct costs of multi site project \$427K

Immediate and prolonged effects of a 10-week non-fatiguing maximal effort exercise protocol on strength in deconditioned men and women with multiple sclerosis: A multi-center study

Principal Investigator: Michael Kuchera, DO
Role: Site director, responsible for COMIRB approval, consent, data collection and supervision of project execution.
Time and amount: <5% effort. Total direct costs of multi center project \$1640K.
Funding source: United States Department of Defense DASW01-02-C-0045 March 2003- June 2005.

14. Bibliography

Papers Published in Peer Reviewed Journals:

1. Lisa A. Brenner, PhD; Jeanne E. Dise-Lewis, PhD; Sarah K. Bartles, MA; **Susan E. O'Brien, MD**; Matthew Godleski, MD; Marilyn Selinger, PhD
The Long Term Impact and Rehabilitation of Pediatric Traumatic Brain Injury: A 50 Year Follow Up Case Study. J Head Trauma Rehabil 22:1 56-64, 2007.
2. Lisa A. Brenner, PhD, ABPP, **Susan Ladley-O'Brien, MD**, Beeta Homaifar, PhD, Christopher M. Filley, MD, James P. Kelly, MD, Jeri E.F. Harwood, PhD, Lawrence E. Adler, MD
An Exploratory Study of Neuroimaging, Neurologic, and Neuropsychological Findings in Veterans with Traumatic Brain Injury and/or Posttraumatic Stress Disorder. Military Medicine 174, 4:347, 2009.
3. Bahraini, Nazanin, PhD, Lisa A. Brenner, PhD, ABPP, Beeta Homaifar, PhD, **Susan Ladley-O'Brien, MD**, Christopher M. Filley, MD, James P. Kelly, MD, Jeri E.F. Harwood, PhD, Lawrence E. Adler, MD. Utility of the Trauma Symptom Inventory for the Assessment of Posttraumatic Stress Symptoms in Veterans with a History of Psychological Trauma and/or Brain Injury. Military Medicine 174, 10:1005-9, 2009.

4. Stephanie A. Kolakowsky-Hayner, Jerry Wright, Jeffrey Englander, Thao Duong, **Susan Ladley-O'Brien**. Impact of late post-traumatic seizures on physical health and functioning for individuals with brain injury within the community
Brain Injury May 2013, Vol. 27, No. 5: 578–586.

Textbook Contributions:

5. Encyclopedia of Clinical Neuropsychology. Editors: Nathan Zasler, Jeffrey Kreutzer, John DeLuca, and Bruce Caplan- **contributor** of six entries to the Medical Evaluation section. Springer 2011 (2017 Second edition in press)

6. The Essential Brain Injury Guide. Edition 5.0 Editors: Kolakowsky-Hayner, Reyst and Abashian- **author** of Post Traumatic Seizures section in Medical Complications Chapter. Brain Injury Association of America 2016.

Abstracts:

7. Kuchera ML, Dombroski RT, Vardy T, Thomas F, **O'Brien S**, Yagnik P, Wenzel K, Stoll S, Stouch S, Wallin MT.

Immediate and prolonged effects of a 10-week non-fatiguing maximal effort exercise protocol on strength in deconditioned men and women with multiple sclerosis: A multi-center study (abstract), JAOA 107(8):342, (Aug 2007).

8. Kuchera ML, Dombroski RT, Vardy T, Thomas F, **O'Brien S**, Yagnik P, Wenzel K, Stoll S, Stouch S, Wallin MT.

Immediate and prolonged effects of a 10-week maximal effort exercise (with valsalva) protocol on cognition in men and women with multiple sclerosis: A multi-center study (abstract), JAOA 107(8):341-342, (Aug 2007).