

Curriculum Vitae
M. Elizabeth Sandel, MD
www.elizabethsandelmd.com/

EDUCATION

Fellowship, Brain Injury Rehabilitation Magee Rehabilitation Hospital, Philadelphia, PA Additional rotations: Braintree Hospital, Braintree, MA San Francisco General Hospital, San Francisco, CA	1984-1985
Residency, Physical Medicine and Rehabilitation Thomas Jefferson University Hospital, Philadelphia, PA	1981-1984
M.D. Medical College of Pennsylvania, Philadelphia, PA (now Drexel College of Medicine) - Humanities Scholar	1977-1981
Bryn Mawr College, Bryn Mawr, PA Post-Baccalaureate Pre-Medical Program	1975-1977
B.A. Bucknell University, Lewisburg, PA	1967-1971

CURRENT POSITIONS

Clinical Professor, Volunteer, University of California/Davis	1998-
Board Chair, Concussion Alliance https://www.concussionalliance.org/	2023-
Board Director, Foundation for Physical Medicine and Rehabilitation Co-Chair, Brain Injury Research Committee	2024- 2019-
Historian, American Academy of Physical Medicine and Rehabilitation	2013-present

CERTIFICATION

American Board of Physical Medicine and Rehabilitation Brain Injury Medicine PM&R - Lifetime certificate	2014 - 2024 1985 - 2024
National Board of Medical Examiners	1982

LICENSURE

State of California (Retired as of January 31, 2025)	1997
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State of New Jersey (Inactive)	1986
Commonwealth of Pennsylvania (Inactive)	1981

PROFESSIONAL POSITIONS

Medical Director, Catastrophic Care Management Paradigm, Walnut Creek, CA	2013-2023
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Chief, Physical Medicine and Rehabilitation Napa Solano Service Area, Vallejo, CA Kaiser Permanente Northern California	1997-2012
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Director, Center of Excellence for Individuals with Disabilities Kaiser Permanente Institute for Culturally Competent Care	2001-2012
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Director, Research and Training Kaiser Foundation Rehabilitation Center, Vallejo, CA	2006-2012
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Medical Director, Kaiser Foundation Rehabilitation Center Kaiser Foundation Hospital, Vallejo, CA	1997-2006
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Administrative Consultant Beechwood Centers of New Jersey, Merchantville, NJ	1995-1997
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Medical Director, The Piersol Rehabilitation Unit Hospital of the University of Pennsylvania, Philadelphia, PA	1993-1997
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Medical Director, Brain Injury Programs Magee Rehabilitation Hospital and Thomas Jefferson University Hospital, Philadelphia, PA	1991-1993
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Consulting Psychiatrist, Center for Women with Disabilities Thomas Jefferson University, Philadelphia, PA	1992-1993
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Mediplex Rehab-Camden, Camden, NJ	
Clinical Director	1987-1988
Medical Director	
Inpatient and Outpatient Services	1988-1991
Mediplex Transitions	
Director of Medical Research and Training	1988-1991

Attending Psychiatrist Cooper Hospital/University Medical Center, Camden, NJ	1987-1991
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Associate Director, Brain Injury Programs Magee Rehabilitation Hospital, Philadelphia, PA	1985-1987
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Kaiser Permanente Northern California, Oakland, CA	
Rehabilitation Services Oversight Group	2009-2012
Regional Stroke Guidelines Committee	1997-2010
Regional Rehabilitation Advisory Board	1997-2009
Kaiser Permanente Health Plan, Inc., Oakland, CA	
National Diversity Council Member	2008-2012
Member, LGBT Task Force	2011-2012
Physician Champion, Provider Handbook for Individuals with Disabilities, National Diversity Department	2004-2012
Kaiser Foundation Hospital, Vallejo, CA	
Executive Committee	1997-2012
President, Professional Staff	2003-2004
President Elect /Secretary, Professional Staff	2002-2003
Primary 1 Peer Group	1999-2001
Resource Management Committee	1997-2007
Quality Assurance Committee	1997-2012
Kaiser Foundation Rehabilitation Center, Vallejo, CA	
Co-Chair, Executive Management Committee	1997-2012
Co-Chair, Rehabilitation Collaborative Practice Council	1997-2012
Course Director, Annual Rehabilitation Symposium	1997-2012
University of Pennsylvania School of Medicine	
Comprehensive Injury Center Committee	1997
Review Committee: Department of Otorhinolaryngology	1996-1997
Chair, Education Subcommittee	
Program Evaluation and Planning Steering Committee	1996-1997
Departmental Representative, Educational Retreat	1996
Administrative Council Committee	1996-1997
Committee on Appointments and Promotions	1996-1997
Committee on Students with Learning Disabilities	1995-1997
Executive Committee, Rehabilitation Medicine	1994-1997
School of Medicine Admissions Committee	1994
Medical Quality Improvement Committee	1993-1997
Chair, Department Quality Assurance Committee	1993-1994
Thomas Jefferson University Hospital/Magee Rehabilitation Hospital	1991-1993
Chair, Research Task Force on Brain Injury	
Infection Control Committee	
Magee Rehabilitation Hospital	1991-1993
Medicine and Society Course Committee	
Credentials Committee	
Thomas Jefferson University School of Allied Health	1992-1994
Advisory Board Member, Experimental and Innovative Training Grant on Employability for Individuals with Traumatic Brain Injury	

Mediplex Rehab-Camden 1987-1991
Chair, Utilization Review Committee
Quality Assurance Committee
Executive Committee

FACULTY APPOINTMENTS

University of California at Davis Health System, Sacramento, CA 1998-present
Clinical Professor (Volunteer), Physical Medicine and Rehabilitation

Touro University College of Osteopathic Medicine, Vallejo, CA 2000-2003
Adjunct Faculty

University of Pennsylvania School of Medicine, Philadelphia, PA
Vice-Chair for Graduate Medical Education 1995-1997
Associate Professor of Rehabilitation Medicine 1993-1997
Director, Division of Neurorehabilitation 1993-1997
Mentor, Clinical Neuroscience Track 1993-1997

UMDNJ-Robert Wood Johnson Medical School, Camden, NJ 1988-1991
Clinical Assistant Professor, Department of Medicine/Neurology

Jefferson Medical College (now Sidney Kimmel Medical College
at Thomas Jefferson University), Philadelphia, PA
Clinical Assistant Professor 1989-1993
Instructor, Rehabilitation Medicine 1985-1989

AWARDS AND HONORS

Distinguished Alumni Award 2016
Lower Dauphin High School
Hummelstown, PA

James Rae Day, Honorary Lectureship 2015
Department of Physical Medicine and Rehabilitation
University of Michigan, Ann Arbor, MI

Krusen Lifetime Achievement Award 2012
American Academy of Physical Medicine and Rehabilitation
Rosemont, IL

Visiting Professorship 2012
Department of Physical Medicine and Rehabilitation
University of Pittsburgh, Pittsburgh, PA

Phala Helm Distinguished Lectureship 2012
Department of Physical Medicine and Rehabilitation
University of Texas, Southwestern, Dallas, TX

Visiting Professorship Department of Physical Medicine and Rehabilitation Loma Linda University, Loma Linda, CA	2011
The Permanente Medical Group Profession of Medicine Award 50th Anniversary Celebration, Oakland, CA	1999
The John Morgan Society University of Pennsylvania School of Medicine, Philadelphia, PA	1995
Fellow, The College of Physicians, Philadelphia, PA	1995
Award of Excellence, Keystone Head Injury Association	1993
Practitioner of the Year Award South New Jersey Rehabilitation Association	1988

ACTIVITIES IN PROFESSIONAL AND SCIENTIFIC SOCIETIES

American Board of Physical Medicine and Rehabilitation Brain Injury Medicine Examination Committee	2011-2015
Task Force on Brain Injury	1997-2011
Written Examinations Associate	1997-1999
Commission on Accreditation of Rehabilitation Facilities Presenter, Culturally Competent Care Webinar Series	2014
Surveyor	1988-91
National Advisory Committees Post-Acute Head Injury Programs	1987
Outpatient Programs	1989
American Medical Association	2011-2016
Physician Consortium for Performance Improvement	2013-2015
Member, Outcomes Ad Hoc Committee	
Brain Injury Association of America/Icahn Expert Panel Guidelines for the Rehabilitation and Disease Management of Adults with Moderate to Severe Traumatic Brain Injury	2014-2023
American Academy of Physical Medicine and Rehabilitation Board of Governors	2003-2011
President	2009-2010
President Elect	2008-2009
Vice President	2007-2008
Treasurer	2005-2007
Member at Large	2003-2005
Historian	2013-present
Councils: Central Nervous System; Medical Rehabilitation	2009-present
Liaison, National Quality Forum	2012-2015

Evidence Based Practice Committee	2012-2015
Performance Metrics Committee, Chair	2012-2015
Awards Committee	2014
Analytics Committee, Co-Chair	2011-2013
Nominating Committee	2009-2012
Medical Inpatient Rehabilitation Criteria Task Force	2006
Strategic Management Committee	1995-1997
Subcommittee for Education and Research	
Chair, Special Interest Groups Task Force	
Committee to Revise the Syllabus	1995-97
Chair, Traumatic Brain Injury	
Fellowship Guidelines Task Force	1994-96
Chair, Brain Injury	
Practice Parameter Task Force	1992-1994
Chair, The Agitated Brain-Injured Patient	
Special Interest Group on Brain Injury	1993-2009
Chair	1992-1994
Secretary	1990-1992
Foundation for Physical Medicine and Rehabilitation,	
Co-Chair, Brain Injury Research Task Force	2019-present
Research Summit Participant, Crystal City, VA	2005 & 2007
National Institute of Neurological Disorders and Stroke	2011-2012
Traumatic Brain Injury Common Data Elements Project	
Member, Rehabilitation Subgroup	
International Society for Neuro-emergencies	1996-2001
Chair, Rehabilitation and Psychology Committee	
Clinical Research Roundtable Member	2004
Classification of Inpatient Rehabilitation Facilities	
Institute of Medicine, National Academy of Sciences, Washington, DC	
Technical Expert Panel Member	2011-2014
Inpatient Rehabilitation Facility Quality Reporting Program	
Convened by RTI International, Baltimore, MD	
Technical Expert Panel Member	2010
Developing Quality Measures for People with Disabilities	
Agency for Healthcare Research and Quality, Bethesda, MD	
Technical Expert Panel Member	2007
Medicare Patient Instrument Development, Baltimore, MD	
Multiple Sclerosis Society, Northern California Chapter	2002-2012
Member, Professional Advisory Group	
National Stroke Association, Denver, CO	2003
Member, Task Force on Disparities	

California Rehabilitation Association Member, Board of Directors	2002-2006
Defense and Veterans Head Injury Program, Washington, DC Member, Scientific Advisory Board	2001-2002
Medicaid Quality Measures for Individuals with Disabilities NIDRR Research Grant - George Mason University-Delmarva Foundation Member, Advisory Council	2005-2006
American Congress of Rehabilitation Medicine	1983-2021

EDITORIAL POSITIONS

<i>PM&R: The Journal of Injury, Function, and Rehabilitation</i> History Series Editor	2013-2021
Senior Editor	2008-2014
Guest Editor: <i>Brain Injury Source</i> (Brain Injury Association Journal) “Socialization and Intimacy Issues after Traumatic Brain Injury”	2011
<i>Journal of Head Trauma Rehabilitation</i> , Associate Editor	1994-2001
<i>Our Bodies/Our Selves</i> , Boston Women’s Health Collective Consultant, Chapter on: “Sexuality and Disability”	1998

Previous journal reviewer: *American Journal of Physical Medicine and Rehabilitation*; *Archives of Physical Medicine and Rehabilitation*; *Disability and Health*; *Health Affairs*; *Journal of Head Trauma Rehabilitation*, *PM&R: The Journal of Injury, Function, and Rehabilitation*

FUNDED RESEARCH

Co-Investigator: Kaiser Permanente Community Benefits Program, R Delmonico, Principal Investigator, and J Terdiman, M Armstrong, R Whitmer, J Appelman. “Depression and Anxiety Disorders Prior to and Following Mild Traumatic Brain Injury,” \$70,000, 2011-2012.

Co-Investigator: Kaiser Permanente Community Benefits Program, H Wang, PhD, Principal Investigator, S Sidney, M Armstrong, A Klatsky. “Relationship of Post-Acute Care and Stroke Mortality in the Kaiser Permanente Northern California Health System,” \$60,000, 2010-2011.

Co-Principal Investigator: NIH Clinical Center, with L Chan, Co-Principal Investigator, E Rasch, D Brandt, et al. “Examining Functioning and Coordination of Care Following Stroke: A Validation Study,” HHSN269200700002C, \$82,854, 2009-2012.

Co-Principal Investigator: NIH Clinical Center, with L Chan, Co-Principal Investigator, E Rasch, D Brandt, et al. Managing Health and Functioning, NIHCL2009038, \$199,748.00, 2009-2012.

Principal Investigator: National Institute of Neurological Diseases and Stroke, with A Jette, Co-Principal Investigator, L Chan, E Rasch, D Brandt, et al. "The Kaiser Permanente Functional Outcomes System," IRC1NS068397, \$1,000,000, 2009-2012.

Principal Investigator: Kaiser Permanente Community Benefits Program, with R Whitmer, R Delmonico, M Armstrong, et al. "Dementia after Traumatic Brain Injury: A Longitudinal Study of Risk Factors and Relative Risk," \$60,000, 2009-2010.

Co-Investigator: Human Health Service Grant, General Clinical Research Centers, National Center for Research Resources, NIH, with L Katznelson, MD, Principal Investigator, et al. "Consequences of Hypopituitarism Following Traumatic Brain Injury," \$4000, 2007-2009.

Co-Principal Investigator: NIH Clinical Center, with L Chan, Co-Principal Investigator, E Rasch, A Jette, et al. "An Outcomes Monitoring System for Post-Acute Care," \$249,389, 2007-2009.

Co-Investigator: Kaiser Permanente Community Benefits Program, with Y Tai, MD, PhD, Principal Investigator, and H Wang. "Training Conscious Vision in the Blind Field of Homonymous Hemianopia," \$60,000, 2007-2009.

Co-Principal Investigator: Innovations Program, Kaiser Permanente, with A Hobbs, Principal Investigator, and J Terdiman. "Establishing a Traumatic Brain Injury Registry and Tracking System," \$150,000, 1999-2001.

Co-Principal Investigator: Positron Emission Tomography Center, Head Injury Clinical Research Center, University of Pennsylvania, with B Diamond, M Reivich, R Plotkin, R Zorowitz. "Memory Disorders Following Ruptured Aneurysms in the Anterior Portion of the Circle of Willis," \$12,800, 1997-98.

Co-Investigator/Clinical Project Coordination: Head Injury Clinical Research Center, University of Pennsylvania, with TK McIntosh, RI Grossman, G Sinson, ES Flamm. "Traumatic White Matter Abnormalities in Human Head Injury," \$6600, 1996-97.

Co-Investigator: Searle Drug Company, with JM Williams, S Nair, S Stein. "A Double-Blind, Placebo Controlled, Parallel Group Pilot Study of Cycloserine in the Treatment of Post-Traumatic Memory Impairment," \$90,000, 1992-93.

Co-Investigator: Cooper University Hospital, University of Medicine and Dentistry of New Jersey, with TP Stein, ED Norcross, SR Ross, M Flocco. "Protein Metabolism after Severe Brain Injury," \$40,000, 1989-90.

TEACHING AND MENTORSHIP

Concussion Alliance Internship Program

2021-present

Fellowship Mentor/Teacher

Kaiser Foundation Rehabilitation Center

1999-2011

University of Pennsylvania

1995-1996

Magee Rehabilitation Hospital	1991-1992
Mediplex Rehab-Camden, Camden	1989-1991
Resident Teaching/Mentorship	
University of California/Davis	1998-present
Brain Injury Clinical Rotation, Kaiser Vallejo	2006-2008
University of Pennsylvania	1993-1997
Graduate Hospital/University of Pennsylvania	1989-1991
Jefferson Medical College	1985-1988
	1991-1993
Medical Student Teaching/Mentorship	
Touro University School of Osteopathic Medicine	1998-2001
University of Pennsylvania	1994-1997
Jefferson Medical College	1991-1992
Other Teaching Activities	
Dissertation Advisor, Neuropsychology Graduate Program	1996-1997
Widener University, Chester, PA	
Faculty Research Mentor	1996-1997
Department of Rehabilitation Medicine	
University of Pennsylvania	
Lecturer, Recovery after Neural Injury (INSC 618)	1993
University of Pennsylvania	
Summer Institute in Rehabilitation Engineering (BE 750)	1994
University of Pennsylvania	
Jefferson Medical College Allied Health Professionals	1991-1993

PRESENTATIONS

Physiatry: The Making of a Medical Specialty, Medical Grand Rounds, Ohio State University, Columbus, OH, February 2024.

Filling a Gap: A Unique, Evidence-based Resource for College Students with All-Cause Concussion, 14th World Congress on Brain Injury, Dublin, Ireland, with Conor Gormally, Kaori Hirano, Kira Junzman. March, 2023.

Neuropharmacology of Traumatic Brain Injury, UC Davis Medical Center, March 2024

Patient and Provider Reflections on Improving Care for Persistent Post-concussion Symptoms, International Paediatric Brain Injury and North American Brain Injury Societies Joint Conference, New York, NY, with Conor Gormally, September, 2022.

A Patient-Centered Approach to Concussion Care for Emergency Medicine and Primary Care Physicians, Med Learning Group, with Conor Gormally, Concussion Alliance, June, 2022.

Bringing Concussion Education and Advocacy to the Next Generation of Healthcare and Public Health Professionals, International Brain Injury Association's Virtual World Conference on Brain Injury: A Global Conference and Meeting of Minds for Adults and Pediatric Brain Injury, with Conor Gormally and Malayka Gormally, July 2021.

Women and Traumatic Brain Injury: Current Research and Implications for Care, Polytrauma VA/Virginia Commonwealth University, March 2021.

Women and Traumatic Brain Injury: Current Research and Implications for Care, UC Davis PM&R Department Webinar, March 2021.

Concussions/Mild Traumatic Brain Injury: Interventions to Achieve the Best Outcomes. Paradigm National Webinar with Deborah Benson, PhD, December 2020

Shaken Brain: Why Write a Book on Concussion? UC Davis PM&R Department, March 2020

Shaken Brain: Why Write a Book on Concussion? The Permanente Medical Group Retired Physician Association, March 2020

Panel Participant: Mild Traumatic Brain Injury; Alternative Medicine; North American Brain Injury Society Meeting, New Orleans, LA, February 2020

Mild Traumatic Brain Injury, National Interstate Insurance Co., Richfield, Ohio, December 2019

Neuropharmacology of Traumatic Brain Injury, UC Davis Medical Center, March 2019

Post-Concussive Syndrome: From Diagnosis to Recovery, Insurance Rehabilitation Synergy Group, San Francisco, California, May 2018

Course Director - Sports-Related Concussion: Framing the Debates, AAPM&R Annual Assembly, Orlando, FL, October 2018.

Traumatic Brain Injury: Pathophysiology and Prognosis. UC Davis Medical Center, March 2018

The Subtle Brain Injuries: Definitions and Diagnosis. Brain Injury Association of California Medico-Legal Conference, San Diego, CA, February 2018

Controversies in Diagnosis and Treatment of Concussion; Post-Concussive Disorder, CTE, and Other Late Effects of Concussion, UC Davis Medical Center, April 2017.

Post-Concussion Syndrome: Examining a Controversial Diagnosis, Paradigm Management Services Webinar Series, September 2017

Concussion and Controversy: Framing the Debates, NY Institute of Technology Conference: Beyond the Sideline: Unique Athletic Populations, Old Westbury, NY, September 2017

Diagnosis and Prognosis of Concussion and Post-Concussion Syndrome: An Update, Paradigm Management Services Webinar Series, Eastern Alliance Ins. Co., May 2017

Culturally Competent Care, Diversity and Clinical Teams, AAPM&R Annual Assembly, New Orleans, LA, October 2016

What's the Institutional Culture? Women's Leadership Panel, AAPM&R Annual Assembly, New Orleans, LA, October 2016

Diagnosis after Concussion: Can We Reach the Goal, Association of Academic Physiatrists Annual Meeting, February 2016

Traumatic Brain Injury, Munich Reinsurance America, San Francisco CA, November 2015

Comotio Cerebri: More Questions Than Answers, University of Michigan, James Rae Day Lectureship, Ann Arbor, Michigan, May 2015

Concussion; Cognitive Rehabilitation, UC Davis Medical Center, May 2015

Selecting Outcome Metrics for Your Outpatient Practice: An ICF-Based Approach, AAPM&R Annual Assembly, San Diego, CA, November 2014

Culturally Competent Care Series (8 Webinars), CARF International, July-October 2014

Long-Term Behavioral Outcomes in TBI, UC Davis Medical Center, May 2014

ACO Prototypes in Academic Medicine: Past, Present, and Maybe Future, Association of Academic Physiatrists Annual Assembly, Nashville, TN, March 2014

Building Outcome Measurement into Your Busy Outpatient Practice: A Pragmatic Approach, AAPM&R Annual Assembly, National Harbor, MD, November 2013

Neuroendocrine Disorders in Traumatic Brain Injury, UC Davis, November 2013

Neuropharmacology in Traumatic Brain Injury, UC Davis Medical Center, August 2013

Why Are We So Special? Measuring Quality and Outcomes in PM&R Practice, Stanford University PM&R Grand Rounds, Palo Alto VA, Palo Alto, CA, August 2013

Panel Moderator, Physician Conference, Uniform Data System for Medical Rehabilitation, Buffalo, NY, August 2013

Traumatic Brain Injury: Pathophysiology, UC Davis Medical Center, July 2013

Mild Traumatic Brain Injury: Evaluation and Treatment for Optimal Outcomes, UC Davis Medical Center, May 2013

Traumatic Brain Injury: Mechanisms of Injury and Recovery, UC Davis, March 2013

Culturally Competent Brain Injury Rehabilitation Across the Continuum”, with Stephanie Kolakowski-Hayner. Annual Santa Clara Valley Brain Injury Conference: Conversations on Coma to Community, San Jose, CA, March 2013

Trauma Rehabilitation, Annual Emergency Medical Response Summit, Solano Public Health Department, Hampton Inn Conference Center, Vacaville, CA, October 2012

Stroke Rehabilitation: Studying Outcomes within a Large Integrated Health System, Annual PM&R Scientific Day, University of Texas/Southwestern, Dallas, TX, June 2012
Utilizing the AM-PAC across Post-Acute Care Settings to Measure Functional Outcomes after Stroke, MediServe Annual Conference: Leading Change, Scottsdale, AZ, June 2012

Studying Stroke Outcomes within a Large Integrated Health System, Rehabilitation Institute Research Day, University of Pittsburgh, Pittsburgh, PA, May 2012

Why We Need Common Data Elements for Research and Quality Initiatives across the Care Continuum, Santa Clara Valley Brain Injury Conference: Building on the Legacy of Coma to Community, San Jose, CA, February 2012

By the Numbers: What Research Tells Us about Outcomes in Rehabilitation, California Hospital Association/Center for Post-Acute Care, Newport Beach, CA, January 2012

Developing a Quality Measurement Agenda for Physical Medicine and Rehabilitation, AAPM&R Annual Assembly, Orlando, FL, November 2011

Comparative Effectiveness Research: A Focus on Stroke Rehabilitation, Department of Physical Medicine and Rehabilitation, Stanford University, Palo Alto, CA, February 2011

Taking the Leap: The Launch of a Community Oral History Project, UC Berkeley Bancroft Library Summer Institute, Berkeley, CA, August 2011

Quality Measurement in PM&R/PRM Practice, International Society for Physical and Rehabilitation Medicine, 6th World Congress, San Juan, Puerto Rico, June 2011

Moderate/Severe TBI: Late Outcomes, ISPRM 6th World Congress, San Juan, PR, June 2011

Loma Linda University, Loma Linda, CA, Visiting Professor Lectures, March 2011:
Mild Traumatic Brain Injury: Evaluation and Treatment for Optimal Outcomes; Comparative Effectiveness Research: A Focus on Stroke Rehabilitation; Traumatic Brain Injury: Mechanisms of Injury and Recovery; Stroke: Physician and Patient Perspectives

The Future of Stroke Care: Research is the Compass, Annual Rehabilitation Symposium: New Directions in Stroke Care: Recovery, Rehabilitation and Research, Kaiser Foundation Rehabilitation Center, Vallejo, CA, November 2010

Presidential Address: Playback/PM&R: Our Voices, Our Vision; Oral History Interviews of Members of the AAPM&R, AAPM&R Annual Assembly, Seattle, WA, November 2010

Studying Traumatic Brain Injury Using a Natural Experiment Approach, Annual Neurotrauma National Symposium, Las Vegas, NV, June 2010

Patient-Centered Care for Individuals with Disabilities, Permanente Medical Group CME Conference, Chardonnay Country Club, April 2010

Beyond Patient-Centered Care, Kaiser Permanente Diversity Conference, San Francisco, CA, November 2009

Course Director: Gender, Race, Disability: Current Perspectives on Diversity Issues in Career Development, AAPM&R Annual Assembly, Austin, TX, October 2009

Comparative Effectiveness Research, AAPM&R Annual Assembly, Austin, TX, October 2009
Stroke Rehabilitation in a Large U.S. Integrated Health System: Care Pathways, Utilization, and Outcomes, Stroke Rehabilitation Symposium, Weill Cornell Medical Center, NY, May 2009

Translating Activity Limitations into Functional Life Experiences, Kaiser Permanente, Vallejo, CA, December 2008

Early Intervention and Care Management: The Role of Trauma Rehabilitation Starting from Day One, Annual Rehabilitation Symposium, Oakland Marriott, Oakland, CA, November 2008

Untapped Potential: Strategies to Engage Persons with Disabilities in the Workplace, National Diversity Conference, San Francisco, CA, December 2007

Disparities in Post-Acute Stroke Rehabilitation, Poster Presentation, AAPM&R Annual Assembly, Boston, MA, September 2007

Statin Drugs: Benefits and Potential Risks for Polio Survivors, Post- Polio Survivors Group, Martinez, CA, April 2007

Community Re-Integration Following Neurotrauma: Case Studies, San Francisco Neurological Society, Sonoma, CA, March 2007

Disparities in Post-Acute Stroke Rehabilitation: Results of an Integrated Health System Study in Northern California, Symposium on Post-Acute Rehabilitation, Crystal City, VA, February 2007

Neurotrauma Care and Stroke: International and National Standards, Annual Rehabilitation Symposium, Oakland Marriott, Oakland, CA, September 2006

Spinal Cord Injury: Diagnosis and Practical Management, Kaiser Permanente, Walnut Creek, CA, January 2005; Vallejo, CA, September 2005.

Sexual Evaluation and Medical Management for Individuals with Disabilities and Chronic Health Conditions, Annual Rehabilitation Symposium, Oakland Marriott City Center, Oakland, CA, September 2005

Culturally Competent Care for Individuals with Disabilities, Kaiser Permanente, Oakland, CA, October 2004

Best Practices and Models of Care for Individuals with Disabilities, Kaiser Permanente Capital Service Area Continuing Medical Education Program: Quality Caring Across the Continuum, September 2004

Traumatic Brain Injury, Permanente Medicine Today, Oakland, CA, November 2003

Culturally Competent Care for Individuals with Disabilities, National Diversity Conference, Half Moon Bay, CA, September 2003

Aging with a Disability: The Late Effects of Polio, Kaiser Foundation Rehabilitation Center's Annual Rehabilitation Symposium, Oakland Marriott, Oakland, CA, September 2003

History of Kaiser Foundation Rehabilitation Center, TPMG Learning Lunch, Kaiser Regional Offices, Oakland, CA, August 2003

Polio in the 21st Century, The Rotary Club, Pleasant Hill, CA, July 2003

Fatigue: Is There Any Science to Help Us Treat This Symptom? San Francisco Bay Area Polio Survivors group, Kaiser Medical Office Building, Martinez, CA, May 2003

Post-Polio Syndrome, Grand Rounds, Kaiser Foundation Hospital, Vallejo, CA, April 2003

Culturally Competent Care: Meeting the Needs of our KP Members with Disabilities, Learning Lunch, Kaiser Foundation Hospital, San Francisco, CA, February 2003

Stroke: Post-Acute Care and Rehabilitation in an Integrated Health System, National Health Services representatives, Kaiser Foundation Hospital, Vallejo, CA, February 2003

Late Effects of Polio, Kaiser Foundation Hospital, Oakland, CA, January 2003

Providing Culturally Competent Care to Our Members with Disabilities, Kaiser Foundation Hospital, Oakland, CA, November 2002

History: Kaiser Foundation Rehabilitation Center, Program Offices, Oakland, CA, October 2002

Providing Culturally Competent Care to Our Members with Disabilities, Kaiser Permanente's National Diversity Conference, Pasadena, CA, October 2002

Providing Culturally Competent Care to Our Members with Disabilities: Best Practices - Adult Populations, Kaiser Foundation Rehabilitation Center's Annual Rehabilitation Symposium, Oakland Marriott, Oakland CA, September 2002

Traumatic Brain Injury and Recovery, UC Davis Medical Center, Davis, CA, July 2002

Consciousness: Coma and Related States, Grand Rounds, Kaiser Foundation Rehabilitation Center,

Sandel, M.E. - CV, March 2026

Vallejo, CA, July 2002

Mild Traumatic Brain Injury: Implications for Clinical Practice, Neuroscience Group, Northern California Kaiser Permanente, Oakland, CA, March 2002

Mild (Subtle!) Traumatic Brain Injury, Vallejo Medical Staff, Kaiser Foundation Hospital, Vallejo, CA, February 2002

Measuring Stroke Outcomes and Rehabilitation Triage in an Integrated Health System, California Rehabilitation Association conference, San Diego, CA, January 2002

Caring for Patients with Neurological Disorders, Medicine Department Nurse Practitioners' Professional Education Seminar, Kaiser Foundation Hospital, Vallejo, CA, December 2001

Dynamic Imaging in Mild Traumatic Brain Injury: Topics and Trends in Quantifying Rehabilitation, VA Greater Los Angeles Healthcare System, Los Angeles, CA, September 2001

The Permanente Medical Group Clinical Practice Guidelines for Stroke: Development and Implementation, Cedars-Sinai Medical Center, Los Angeles, CA, September 2001

The Role of the Psychiatrist in Managed Care - Institutional Perspective, AAPM&R Annual Assembly, New Orleans, LA, September 2001

The Permanente Medical Group Guidelines for Stroke, The Rehabilitation Continuum: A Focus on Stroke, Kaiser Foundation Rehabilitation Center, Claremont Hotel, Berkeley, CA, May 2001

Measuring Functional Outcomes After Stroke: Results of the FIM Study, with A. McCarthy, and D. Brown, Annual Research Conference - Dialogue of the Future: Integrity in Research & Practice, Kaiser Permanente Medical Center, Walnut Creek, CA, March 2001

Physical, Cognitive, and Behavioral Effects of Chemical Dependency: A Rehabilitation Perspective, Kaiser Permanente Medical Center, Vallejo, CA, January 2001

The Role of the Psychiatrist in Managed Care: The Institutional Perspective, AAPM&R Annual Assembly, San Francisco, CA, November 2000

Course Director - The Permanente Medical Group Clinical Practice Guidelines for Stroke: Development and Implementation in an Integrated Health System, AAPM&R Annual Assembly, San Francisco, CA, November 2000

Telemedicine in TBI: Establishing a Registry and Tracking System, AAPM&R Annual Assembly, San Francisco, CA, November 2000

Spinal Cord Injury: New Frontiers in Treatment, Annual Rehabilitation Symposium – Rehabilitation Continuum: A Focus on Spinal Cord Injury, Kaiser Foundation Rehabilitation Center, Touro University, Vallejo, CA, May 2000

Pharmacologic Management of Behavior in TBI, UC Davis Medical Center, April 2000

TBI: Mechanisms of Injury and Recovery, UC Davis Medical Center, April 2000
Pharmacologic Management of Behavior in TBI, California Society of Physical Medicine and Rehabilitation Annual Conference, Renaissance Parc 55 Hotel, San Francisco, CA, April 2000

Telemedicine and Research Interfaces for the New Millennium, with A Hobbs, PhD, Annual Research Conference: Changing Views for the New Millennium, Kaiser Permanente Medical Center, Walnut Creek, CA, March 2000

Physiatry and Managed Care: The Kaiser Permanente Model, AAPM&R Annual Assembly, Washington, DC, November 1999

TBI: Mechanisms of Injury and Recovery, Annual Rehabilitation Symposium: A Focus on Brain Injury, Kaiser Foundation Rehabilitation Center, Vallejo, CA, June 1999

Brain Injury: Neuropharmacologic Interventions to Improve Cognitive-Behavioral and Physical Outcomes, Annual Review Course: Physical Medicine and Rehabilitation, University of Washington School of Medicine, Seattle, WA, March 1999

Brain Injury and Alzheimer's Disease: Is There a Genetic Link? Annual Research Conference, Kaiser Permanente Medical Center, Walnut Creek, CA, March 1999

Neuroinformatics: An Emerging Interface in Kaiser Permanente, with Allen Hobbs, PhD, Rehabilitation of Persons with Traumatic Brain Injury. NIH Consensus Development Conference, NIH, Bethesda, MD, October 1998

Neural Plasticity, International Proprioceptive Neuromuscular Facilitation Conference, Kaiser Foundation Rehabilitation Center, Vallejo, CA, September 1998

Deep Venous Thrombosis and Pulmonary Embolism after Stroke, First Annual Rehabilitation Symposium: Stroke Rehabilitation Across the Continuum, Kaiser Foundation Rehabilitation Center, Vallejo, CA, June 1998

Managed Care and Spinal Cord Injury: The Kaiser Experience, American Spinal Injury Association National Meeting, Cleveland, OH, April 1998

Prognostication: Challenges for the Field of Rehabilitation Medicine, State University of New York at Buffalo, Buffalo, NY, March 1997

Course Director - Injury Prevention: Traumatic Brain Injury, AAPM&R Annual Assembly, November 1997

Outcome After Traumatic Brain Injury: A Rehabilitation Medicine Perspective, University of Colorado Health Sciences Center, Denver, CO, February 1997

The Role of Neuropharmacologic Intervention in Optimizing Outcomes After Traumatic Brain Injury, The Brain Injury Prognosis and Outcome Conference, Queens Landing, Niagara-on-the-Lake, Ontario, Canada, July 1996

Early Rehabilitation Strategies for Severe Acute Brain Trauma in Adults, First Symposium of the International Society for Neuroemergencies, Freeport, Bahamas, July 1996

Outcome Measures in Rehabilitation Medicine: An Overview, Symposium of the International Society for Neuroemergencies, Freeport, Bahamas, July 1996

Disorders of Consciousness, Annual Conference: Rebuilding Shattered Lives, JFK Johnson Rehabilitation Institute, Edison, NJ, May 1996

Partial Kluver-Bucy Syndromes Following Diffuse Brain Injury, with LB Kile, MD, A Zwil, MD, T McAllister, MD, and K Williams, MD. American Neuropsychiatric Association Annual Meeting, Pittsburgh, PA, November 1995

Noninvasive Magnetic Resonance Imaging in Cerebrovascular Disease, with D Roberts, JS Leigh, H Goldberg, JA Detre, and R Rizzi. Radiologic Society of North American Annual Meeting, Chicago, IL, November 1995

The Agitated Brain Injured Patient: Development of a Practice Guideline, AAPM&R Annual Assembly, Orlando, FL, November 1995

Medical Management in Traumatic Brain Injury, 7th Annual Conference: Rebuilding Shattered Lives, JFK Johnson Rehabilitation Institute, Edison, NJ, April 1995

The Agitated TBI Patient, AAPM&R Annual Assembly, Anaheim, CA, October 1994

Coma and Related Conditions, Annual Advances in Developmental Disabilities. Children's Hospital of Philadelphia, Children's Seashore House, Philadelphia, PA, September 1994

Outcome Measures and Prognosis in Traumatic Brain Injury, Annual Meeting, American Academy of Neurology, Washington, DC, May 1994

Physical Medicine and Rehabilitation Interventions for Cancer Patients, School of Nursing, University of Pennsylvania, Philadelphia, PA, May 1994

Sexual Functioning After Traumatic Brain Injury, with KS Williams, PhD, L DellaPietra, PhD, L Derogatis, PhD. AAPM&R Annual Assembly, Miami Beach, FL, October 1993

The Agitated Patient: Development of a Practice Parameter, AAPM&R Annual Assembly, Miami Beach, FL, October 1993

Covert Recognition in a Prosopagnosic Patient, with Bruce Diamond, PhD, Tim Valentine, PhD, Andrew Mayes, PhD. International Neuropsychological Society, Madeira, Portugal, June 1993

Evidence of Covert Recognition in a Prosopagnosic Patient, with Bruce Diamond, PhD, Tim Valentine, PhD, Andrew Mayes, PhD. Meeting of the European Physician Society, Cambridge, England, April 1993

The Accident Neurosis, Revisited, with Alexander Zwil, MD, Grand Rounds, Department of Psychiatry, Jefferson Medical College, Philadelphia, PA, April 1993

Functional Outcome After TBI, Distinguished Lecturers in Rehabilitation, New England Society of PM&R, New England Rehabilitation Hospital, Boston, MA, March 1993

Predicting Long Term Outcome After Brain Injury, Grand Rounds, Department of Neurology, Pennsylvania Hospital, Philadelphia, PA, January 1993

Admission Examination Factors Predicting Cognitive Improvement During Acute Brain Injury Rehabilitation, with Maturin D. Finch, MD, Claire Spettell, PhD, and Anne Connor Mack, MD, AAPM&R Annual Assembly, San Francisco, CA, November 1992

Abnormal Neurologic Signs in Mild Traumatic Brain Injury Patients with Persistent Symptoms, with Richard V. Riggs, MD, AAPM&R Annual Assembly, San Francisco, CA, November 1992

Late Onset of Syringomyelia After Brain Injury: Association with Arnold-Chiari Malformation, with Frank S. Pidcock, MD and Scott Faro, MD, AAPM&R Annual Assembly, San Francisco, CA, November 1992

Strategies to Improve the Responsiveness of the Coma Emerging Patient, AAPM&R Annual Assembly, San Francisco, CA, November 1992

Functional Outcome After Traumatic Brain Injury, Grand Rounds, Department of Physical Medicine and Rehabilitation, University of Pennsylvania, Philadelphia, PA, July 1992

Medical Management of Traumatic Brain Injury, Learn with The Best Seminar, Magee Rehabilitation Hospital, Philadelphia, PA, April 1992

Prognostic Factors in Traumatic Brain Injury: An Overview, Magee Rehabilitation Hospital Seminar, Four Seasons Hotel, Philadelphia, PA, April 1992

Rehabilitation of the Mild Brain Injured Patient: Early Interventions, Closed Head Injury: The Medical, Legal, and Rehabilitative Continuum, Department of Psychiatry and Human Behavior, Jefferson Medical College, Philadelphia, PA, April 1992

Family Issues in Brain Injury Rehabilitation, Grand Rounds, Department of Psychiatry, Thomas Jefferson University Hospital, Philadelphia, PA, February 1992

Nutritional Management after TBI, Leader Nursing Home, West Deptford, NJ, January 1992

Persistent Facial Myoclonus: A Negative Prognostic Sign After Brain Injury, with Michael O'Dell, MD, AAPM&R Annual Assembly, Washington, DC, October 1991

Outcome After Traumatic Brain Injury, Trauma Rounds, Thomas Jefferson University Hospital, Philadelphia, PA, September 1991

Long-term Management of Traumatic Brain Injured Patients, Keeping Ahead Seminar, Magee Rehabilitation Hospital, Philadelphia, PA, September 1991

The Coma-Emerging Patient: Treatment in a Rehabilitative Setting, Maine Head Injury Foundation, Traumatic Brain Injury: Options and Opportunities, Portland, ME, March 1991

Resident Training in Traumatic Brain Injury, with Maria Labi, MD, AAPM&R Annual Assembly, Phoenix, AZ, October 1990

Protein Metabolism After Severe Brain Injury, with Douglas Norcross, MD, AAPM&R Annual Assembly, Phoenix, AZ, October 1990

Early Intervention in Head Injury Rehabilitation, with Claire Spettell, PhD, AAPM&R Annual Assembly, Phoenix, AZ, October 1990

Assessment of Chemical Dependency in Head Injured Patients, with Rose Plotkin, PhD, AAPM&R Annual Assembly, Phoenix, AZ, October 1990

Coma Rehabilitation, University Hospital Trauma Division, Newark, NJ, May 1990

Rehabilitation of Traumatic Brain Injury, Central New York Academy of Medicine, Physical and Rehabilitative Medicine Teaching Day, Utica, NY, February 1990

Prognosis After Traumatic Brain Injury: State of the Art and Research Directions, AAPM&R Annual Assembly, San Antonio, TX, November 1989

Mild Head Injury, Grand Rounds, Moss Rehabilitation Hospital, Philadelphia, PA, June 1989

Mild Head Injury: The Neurodiagnostic Evaluation, Professional Conference, Mediplex Rehab-Camden, Camden, NJ, May 1989

Pathophysiology of Mild Head Injury, Selective Insurance Co., Princeton, NJ, May 1989

Predicting Outcome After TBI, Professional Rehabilitation Network, Marlton, NJ, April 1989

Unpredicted Recovery After Massive Left Hemispheric Injury, with Rebecca Resh, MEd and Edward J. Alexander, MD, AAPM&R Annual Assembly, Seattle, WA, November 1988

Acquired Factor VIII Deficiency After Brain Injury, with Lance Busch, DO, AAPM&R Annual Assembly, Seattle, WA, November 1988

Behavioral Outbursts and Temporo-Limbic Activity: An Integrated Behavioral-Medical Investigation, with Mark Rader, PhD, Head Injury Conference: An Integrated Approach to Behavioral Rehabilitation, Tufts/New England Medical Center, Boston, MA, April 1988

Functional Outcome After Traumatic Brain Injury, Surgical Grand Rounds, Cooper Hospital/University Medical Center, Camden, NJ, January 1988

Outcome after Traumatic Brain Injury, Case Managers Conference, Deerfield, FL, June 1987

Post-Concussive Syndrome, Injured Workers Conference, Baltimore, MD, June 1987
Minor Brain Injury, South Jersey Claims Managers Association, Mt. Laurel, NJ, April 1987

Medical Complications Encountered in Head-Injured Adults: Neuroendocrinology and Autonomic Dysfunction, AAPM&R Annual Assembly, Orlando, FL, October 1987

Early Rehabilitation Interventions in the Acute Care of Brain Injury, Social Workers' Educational Conference, Mediplex Rehab-Camden, Camden, NJ, September 1987

Anterior Pituitary Dysfunction After Traumatic Brain Injury: A Preliminary Report of Thirty Patients, with Lawrence J. Horn, MD Annual Conference on Rehabilitation of the Brain-Injured Adult and Child, Williamsburg, VA, June 1986

The Frontal Lobes and Behavior, Magee Rehabilitation Hospital, Philadelphia, PA, June 1986

Assessing Brain Injury Complications in Spinal Cord Injured Patients, with Kathy Lawler, PhD, and Mary Pat Erdner, RN. Spinal Cord Injury Conference: Integrating a Lifetime Approach, Thomas Jefferson University Hospital, Philadelphia, PA, May 1986

Spasticity: Neurophysiology and Treatment, Fourth Annual Symposium on Current Trends in Research, Diagnosis, and Rehabilitation of the Multiple Sclerosis Patient, The Wistar Institute, Philadelphia, PA, May 1986

Hypertension After Brain Injury, Annual Conference on Rehabilitation of the Brain-Injured Adult and Child, Williamsburg, VA, June 1985

Heterotopic Ossification, Orthopedic Grand Rounds, Hahnemann University Hospital, Philadelphia, PA, January 1984

The Significance of Air Around the Joint, AAPM&R Annual Assembly, Los Angeles, CA, November 1983

ABSTRACTS

Sandel ME, Gormally C. Patient and Provider Reflections on Improving Care for Persistent Post-Concussion Symptoms, North American Brain Injury Association Conference. *J Head Trauma Rehabil* 2022; E591.

Delmonico RL, Theodore BR, Sandel E, Armstrong M A, Camicia M, Prevalence of Depression and Anxiety Disorders following Mild Traumatic Brain Injury. *Arch Phys Med Rehabil* 2017; Vol. 98, Issue 10, e96.

Annaswamy TM, Roth EJ, Houtrow AJ, Berbrayer D, Frontera WR, Heinemann A, Chan L, Sandel ME, Ireland B. Association Between Functional Assessment of Patients and Their Outcomes: A Systematic Review. *PM&R* 2016; 9S:S323-S324.

Wang H, Niewczyk P, DiVita MA, Camicia M, Appelman A, Mix J, Sandel ME. Impact of Pressure Ulcers on Outcomes in Inpatient Rehabilitation. *Arch Phys Med Rehabil* 2013; 94 (10), E54.

DiVita MA, Wang H, Niewczyk P, Camicia M, Appelman J, Mix J Sandel ME. Impact of Pressure Ulcers on Outcomes in Inpatient Rehabilitation Facilities. *PM&R* 2013; 5(9):S143.

Jette A, Ni P, Rasch E, Appelman J, Sandel ME, Chan L. Evaluation of Patient and Proxy Responses on the Activity Measure for Post-Acute Care. *Arch Phys Med Rehabil* 2011; 92(10): 1694.

Chan L, Sandel E, Rasch E, Terdiman J, Appelman J, Brandt D, Cheng P, Jette A. Stroke Outcomes: The Impact of Post-Acute Care Site. *Arch Phys Med Rehabil* 2011; 92:1714-15.

Wang H, Camicia M, Mannava M, Sandel E, Sidney S, Terdiman J. Therapeutic Intensity and Functional Gains During Inpatient Rehabilitation. *PM&R* 2011; 3S195.

Sandel M, Appelman, J, Brandt D, Chan L, Jette A, Rasch, E, Terdiman J, TeSelle M: Functional Outcomes after Stroke: Evaluating the Feasibility of Using a Single Computer-Adapted Testing Measure across Care Settings. *PM&R* 2011;3S336.

Chan L, Ciol M, Hoffman J, Liu Q, Sandel ME, Terdiman J, Wang H. Racial and Ethnic Disparities in Post-Stroke Outpatient Rehabilitation in Northern California. *Arch Phys Med Rehabil* 2008;89(11): E142.

Chan L, Ciol M, Hoffman J, Lu Q, Sandel ME, Terdiman J, Wang H. Racial and Ethnic Disparities in Post-Stroke Outpatient Rehabilitation in Northern California. *Arch Phys Med Rehabil* 2008;89: E112.

Wang H, Camicia M, Sandel ME, Effect of Time to Rehabilitation Admission on Stroke Rehabilitation Outcomes. *Arch Phys Med Rehabil* 2007;88: E12.

Sandel ME, Wang H, Terdiman J, Chan L, Hoffman J, Berhel A. Differences and Disparities in Poststroke Rehabilitation and Mortality: Results of a Large Population-Based Study in Northern California. *Arch Phys Med Rehabil* 2007;88: E103.

Brown D., McCarthy A., Whitney M., Sandel ME. Measuring Outcome after Stroke: Results of the FIM Study. *Arch Phys Med Rehabil* 2001;82:1343.

Samatovicz RA, Tellier JE, Sandel ME. Visual Confabulation in Anterior Communicating Artery Syndrome: A Case Report. *Am J Phys Med and Rehabil* 2000; 79(2):208.

Webb LB, Sandel ME, Plotkin R, Trojanowski J, Clark CM. Distribution of the Apolipoprotein E e4 Allele in Patients with Persistent Cognitive Deficits After Mild Traumatic Brain Injury. *Arch Phys Med Rehabil* 1998; 79:1147-1148.

Terry C, Sandel ME, Plotkin R, Alavi A. Dynamic Imaging in Mild Traumatic Brain Injury: Support for the Theory of Medial Temporal Vulnerability. *Arch Phys Med Rehabil* 1997; 78:1029.

Sandel ME, Williams K, Derogatis LR. Sexual Functioning Following Traumatic Brain Injury. *Arch Phys Med Rehabil* 1993; 74:1284.

Pidcock FS, Sandel ME, Faro S. Late Onset of Syringomyelia After Traumatic Brain Injury:

Association with Arnold-Chiari Malformation. *Arch Phys Med Rehabil* 1992; 73:955.

Sandel ME, Riggs RV. Abnormal Neurologic Signs in Mild Traumatic Brain Injury Patients with Persistent Symptoms. *Arch Phys Med Rehabil* 1992; 73:956.

Finch MD, Sandel ME, Spettell C, Mack AC. Admission Examination Factors Predicting Cognitive Improvement During Acute Brain Injury Rehabilitation. *Arch Phys Med Rehabil* 1992; 73:964.

Sandel ME, O'Dell MW. Persistent Facial Myoclonus: A Poor Prognostic Sign After Brain Injury. *Arch Phys Med Rehabil* 1991; 72:798.

O'Dell MW, Fitzsimmons AS, Giuffra LJ, Sandel ME. Radial Nerve Injury Associated with Traumatic Myositis Ossificans in a Brain Injured Patient. *Arch Phys Med Rehabil* 1991; 72:815.

Sandel ME, Norcross ED, Ross SR, Flocco M, Stein TP. Protein Metabolism After Severe Brain Injury. *Arch Phys Med Rehabil* 1990; 71:764-765.

Plotkin RC, Frohman S, Leone B, Sandel ME. Assessment of Chemical Dependency in Head Injured Patients. *Arch Phys Med Rehabil* 1990; 71:813.

Sandel ME, Labi ML, Spettell CM. Resident Training in Traumatic Brain Injury. *Arch Phys Med Rehabil* 1990; 71:803.

Spettell CM, Ellis DW, Ross SE, Sandel ME, O'Malley KF. The Role of Early Intervention in Head Injury Rehabilitation. *Arch Phys Med Rehabil* 1990; 71:764.

Sandel ME, Busch L. Acquired Factor VIII Deficiency After Brain Injury. *Arch Phys Med Rehabil* 1988; 69:613-614.

PEER-REVIEWED PUBLICATIONS

Casper ST, Bachynski KE, Buckland ME, Comrie D, Gandy S, Gates J, Goldberg DS, Henne K, Hind K, Morrison D, Ortega F, Pearce AJ, Philpott-Jones S, Sandel E, Tatos T, Tucker S, Finkel AM. Toward Complete, Candid, and Unbiased International Consensus Statements on Concussion in Sport. *J Law Med Ethics*. 2021;49(3):372-377. doi: 10.1017/jme.2021.56. PMID: 34665101.

Delmonico RL, Theodore BR, Sandel ME, Armstrong MA, Camicia M. Prevalence of Depression and Anxiety Disorders following Mild Traumatic Brain Injury. *PM&R*, 2021 Jun 22. doi: 10.1002/pmrj.12657. Epub ahead of print. PMID: 34156769.

Deutsch A, Sandel ME, Houtrow A, Dillingham T. Margaret Grace Stineman: Distinguished Physiatrist, Researcher, and Proponent of 'Empowerment Medicine', *PM&R*, 2021 Sep 6. doi: 10.1002/pmrj.12704. Epub ahead of print. PMID: 34490748.

Ditunno JD, Sandel ME, Corcoran P, Growing Academic Physiatry: The Comparative Impact of Baruch Grants to Harvard Medical School and Columbia College of Physicians and Surgeons: Part 2. *PM&R* 2020; 12:615-623.

Ditunno JD, Corcoran P, Sandel ME, Growing Academic Physiatry: The Comparative Impact of Baruch Grants to Harvard Medical School and Columbia College of Physicians and Surgeons: Part 1. *PM&R* 2020; 12:315-321.

Tarsney P, Sandel ME, Doyle CK, Shapiro SP, Hutchinson PJ. Putting the Pieces Together: Advance Directives in the Rehabilitation Setting. *PM&R* 2020; 12:73-81.

Sandel ME. Hippocampal Neurogenesis: A Basis for Sexual Therapies after Traumatic Brain Injury? *Brain Injury Professional* (North American Brain Injury Society) 2019;16(2):12-14.

Ditunno JD, Sandel ME. John Stanley Coulter and the Emergence of Physical Medicine and Rehabilitation in the Early 20th Century. *PM&R* 2017; 9:193-199.

Verville R, Ditunno JD, Tuakli-Wosornu Y, Sandel ME. Physical Education, Exercise, Fitness and Sports: Early PM&R Leaders Build a Strong Foundation. *PM&R* 2015; 9:904-12.

Wang H, Niewczyk P, DeVita M, Camicia M, Appelman J, Mix J, Sandel ME. Impact of Pressure Ulcers on Outcomes in Inpatient Rehabilitation Facilities. *Am J Phys Med Rehabil* 2014; 93:207-216.

Sandel ME, Bates B. Ask the Authors: One-Year All-Cause Mortality After Stroke: A Prediction Model. *PM&R* 2014; 6:483-485.

Wang, H, Camicia M, Terdiman J, Mannava MK, Sidney S, Sandel ME. Daily Treatment Time and Functional Gains of Stroke Patients During Inpatient Rehabilitation. *PM&R* 2013; 5:122-128.

Chan L, Sandel ME, Jette AM, Appelman J, Brandt DE, Cheng P, TeSelle M, Delmonico R, Terdiman JF, Rasch EK. Does Post-Acute Care Site Matter? A Longitudinal Study Assessing Functional Recovery after a Stroke. *Arch Phys Med Rehabil* 2013; 94:622-9.

Sandel, ME, Jette AM, Appelman J, Terdiman JF, Liu L, Cheng P, TeSelle M, Delmonico R, Wang H, Camicia M, Rasch EK, Brandt D, Chan L. Designing and Implementing a System for Tracking Functional Status after Stroke: A Feasibility Study. *PM&R* 2013; 5:481-490.

Sandel, ME. Dr. Herman Kabat: Neuroscience in Translation...from Bench to Bedside. *PM&R* 2013; 5:453-461.

Hudak AM, Sandel ME, Goldberg G, Wrynn AM: Dr. Frances A Hellebrandt: Pioneering Physiologist, Physiatrist, and Physical Medicine and Rehabilitation Program Visionary. *PM&R* 2013; 5:639-646.

Cope DN, Sandel ME, Berrol C, Mayer N, Yarnell S: Dr. Sheldon Berrol: Champion of Brain Injury Rehabilitation and Disability Rights. *PM&R* 2013; 5:907-914.

Miller LS, Sandel ME: Dr. Rene Cailliet: Advancing the Field of Musculoskeletal Medicine by Making the Complicated Understandable. *PM&R* 2013; 5:991-995.

Maas A, Menon DK, Lingsma HF, Pineda JA, Sandel ME, Manley GT. Re-orientation of Clinical Research in Traumatic Brain Injury: Report of an International Workshop on Comparative Effectiveness Research. *J Neurotrauma* 2012; 29:32-46.

Sandel ME. What's on the Horizon: The Rehabilitation Hospitalist. *PM&R* 2012; 4:1-3.

Jette A, Ni P, Rasch EK, Appelman J, Sandel ME, Terdiman J, Chan L. Evaluation of Patient and Proxy Responses on the Activity Measure for Post-Acute Care. *Stroke* 2012; 43:824-829.

Wang H, Camicia M, Terdiman J, Hung Y, Sandel ME. Time to Inpatient Rehabilitation Hospital Admission and Functional Outcomes of Stroke Patients. *PM&R* 2011; 3:296-304.

Wang, H, Sandel ME, Terdiman J, Armstrong MA, Klatsky A, Camicia M, Lu Q, Sidney S. Post-Acute Care and Ischemic Stroke Mortality: Findings from an Integrated Health Care System in Northern California. *PM&R* 2011; 3:686-694.

Sandel ME. Playback/PM&R: Our Voices, Our Vision: Reflections on My Presidential Address, AAPM&R Annual Assembly. *PM&R* 2011; 4:293-295.

Sandel ME. Stroke, Disability, and Unconscious Bias: Interrelationships and Overdetermination in Medical Decisions. *Topics in Stroke* 2011; 18:70-73.

Sandel ME, Appelman J, Kotch M, Biter-mundt G, Lal N, Samuels S, Crespo Y. The California Kaiser Permanente Healthcare System: Evolving to Meet the Needs of People with Disabilities. *Disability and Health* 2010; 3:240-244.

Sandel ME. High-Intensity Exercise for Patients in Cardiac Rehabilitation after Myocardial Infarction. *PM&R* 2010; 2:151-155.

Kirschner K, Gans B, Stineman M, Willik S, Elovic E, Sandel M. Who Will Provide Care for People with Complex Physical Disabilities? *PM&R* 2010; 2:950-956.\

Sandel ME. What Effects? Measuring Functional Outcomes in Comparative Effectiveness Research. *PM&R* 2010; 10:881-883.

Sandel ME. Late Effects of Polio: Perspectives from 3 Countries. *PM&R* 2010; 2:1035-1037.

Sandel ME. Managing Agitation Associated with Traumatic Brain Injury: Behavioral vs. Pharmacologic Interventions? *PM&R* 2009; 1:76-80.

Kirschner K, Breslin ML, Iezzoni L, Sandel ME. Attending to Inclusion: People with Disabilities and Health-Care Reform. *PM&R* 2009; 1:957-963.

Srinivasan L, Roberts B, Bushnik T, Englander J, Spain D A., Steinberg G K., Ren L, Sandel, M E., Al-lawati Z, Teraoka J, Hoffman A R. and Katznelson L. The Impact of Hypopituitarism on Function and Performance in Subjects with Recent History of Traumatic Brain Injury and Aneurysmal Subarachnoid Haemorrhage, *Brain Injury* 2009; 23:(7): 639–648.

Sandel ME, Wang H, Terdiman J, Hoffman JM, Ciol MA, Sidney S, Quesenberry C, Lu Q, Chan L. Disparities in Stroke Rehabilitation: Results of a Study in an Integrated Health System in Northern California. *PM&R* 2009; 1:19-40.

Chan L, Wang H, Terdiman J, Hoffman JM, Ciol MA, Sidney S, Quesenberry C, Lu Q, Sandel ME. Disparities in Outpatient and Home Health Service Utilization Following Stroke: Results of a 9 Year Study in Northern California. *PM&R* 2009; 1:997-1003.

Zhang L, Plotkin R, Wang G, Sandel ME, Lee S.e Cholinergic Augmentation by Donepezil Enhances Recovery in Short-Term Memory and Sustained Attention Following Traumatic Brain Injury. *Arch Phys Med and Rehabil* 2014; 85:1050-1055.

Umile EM, Sandel ME, Plotkin RC, Alavi. Dynamic Imaging in Mild Traumatic Brain Injury: Evidence for the Theory of Medial Temporal Vulnerability. *Arch Phys Med and Rehabil* 2002; 83:1506-1513.

Sandel ME, Bell K, Michaud L. Brain Injury Rehabilitation -Traumatic Brain Injury: Prevention, Pathophysiology and Outcome Prediction. *Arch Phys Med Rehabil* 1998;79:S3-9.

O'Dell MW, Bell KR, Sandel ME. Brain Injury Rehabilitation: Medical Rehabilitation of Brain Injury. *Arch Phys Med Rehabil* 1998; 79:S10-S15.

O'Dell MW, Bell KR, Sandel ME. Brain Injury Rehabilitation: Specific Disorders. *Arch Phys Med Rehabil* 1998; 79: S16-S20.

Bell KR, Sandel ME. Brain Injury Rehabilitation: Postacute Rehabilitation and Community Integration. *Arch Phys Med Rehabil* 1998;79: S21-S25.

Cecil KM, Hills EC, Sandel ME, Smith DH, McIntosh TK, Lenkinski RE, Mannon LJ, Sinson G, Bagley L, Grossman R: Enhanced Sensitivity of Proton MR Spectroscopy for Detecting Axonal Pathology in the Corpus Callosum of Brain Injured Patients. *J Neurosurg* 1998; 88:795-801.

Umile EM, Plotkin RC, Sandel ME. Functional Assessment of Mild Traumatic Brain Injury Using SPECT and Neuropsychological Testing. *Brain Injury* 1998; 12: 577-594.

Mysiwi WJ, Sandel ME. The Agitated Brain Injured Patient, Part II: Pathophysiology and Treatment. *Arch Phys Med and Rehabil* 1997 78:213-220.

Finch M, Sandel ME, Spettell C, Mack A, Spivak G. Admission Examination Factors Predicting Cognitive Improvement During Acute Brain Injury Rehabilitation. *Brain Injury* 11:713-721, 1997.

Reinhard DL, Whyte J, Sandel ME. Improved Arousal and Initiation Following Tricyclic Antidepressant Use in Severe Brain Injury. *Arch Phys Med and Rehabil* 1996; 77:80-83.

Sandel ME. Medical Management of the Coma-Emerging and Minimally Responsive Patient. *Neurorehabilitation* 1996; 6:9-17.

Sandel ME, Williams KS, DellaPietra L, Derogatis L: Sexual Functioning After Traumatic Brain Injury. *Brain Injury* 1996; 10:719-728.

Sandel ME, Mysiw WJ. The Agitated Brain Injured Patient, Part I: Definitions, Differential Diagnosis and Assessment. *Arch Phys Med and Rehabil* 1996; 77:617-23.

Sandel ME. Outcome Measures and Prognosis in Traumatic Brain Injury. *J Neuro Rehabil* 1995; 9:111-115.

Sandel ME, Zwil A. An Interdisciplinary Perspective on the Agitated, Confused Brain Injured Patient. *Neurorehabilitation* 1995; 5:299-308.

Diamond BJ, Valentine T, Mayes AR, Sandel ME. Evidence of Covert Recognition in a Prosopagnosic Patient. *Cortex* 1994; 30:337-393.

Sandel ME, Finch M. The Case for Comprehensive Residency Training in Traumatic Brain Injury Rehabilitation. *Am J Phys Med and Rehabil* 1993; 72:325-326

Sandel ME, Oliver DA, Rader MA. Chlorpromazine Induced Psychosis After Brain Injury. *Brain Injury* 1993; 7:77-84.

Zwil AS, Sandel ME, Kim E. Organic and Psychological Sequelae of Traumatic Brain Injury: The Post-Concussional Syndrome in Clinical Practice. *New Directions for Mental Health Serv* 1993; 57:109-115.

Sandel ME, O'Dell MW. Persistent Facial Myoclonus: A Negative Prognostic Sign in Patients with Severe Brain Injury. *Arch Phys Med Rehabil* 1993; 74:411-415.

Sandel ME, Finch M. The Case for Comprehensive Residency Training in Traumatic Brain Injury. *Am J of Phys Med and Rehabil* 1993; 72:325-326.

O'Dell MW, Fitzsimmons AS, Giuffra LJ, Sandel ME: Radial Nerve Injury Associated with Traumatic Myositis Ossificans in a Brain-Injured Patient. *Arch Phys Med and Rehabil* 1993; 74:770-773.

Pidcock FS, Sandel ME, Faro S. Late Onset of Syringomyelia After Traumatic Brain Injury: Association with Arnold-Chiari Malformation. *Arch Phys Med Rehabil* 1992; 73:955.

Sandel ME, Horn LF. Sensory Stimulation: Accepted Practice or Expected Practice? *J Head Trauma Rehabil* 1992; 7:115-120.

Spettel CM, Ellis DW, Ross SE, Sandel ME, O'Malley KF, Stein SC, Spivak G, Hurley KE. Time of Rehabilitation Admission and Severity of Trauma: Effect on Brain Injury Outcome. *Arch Phys Med and Rehabil* 1991; 72:320-326.

Sandel ME, Weiss B, Ivker B. Multiple Personality Disorder: Diagnosis After a Traumatic Brain Injury. *Arch Phys Med and Rehabil* 1990; 71:523-526.

Sandel ME, Abrams P, Horn LJ. Hypertension After Brain Injury: Case Report. *Arch Phys Med and Rehabil* 1986; 67:469-472.

LETTERS AND BOOK REVIEWS

Sandel E: Treatment for PTSD (letter), *New York Times*, October 17, 2016.

Sandel E, Camicia M, Wang H (letter): Finis Medicinis Pendet: Author Response to Commentary. *PM&R* 2011; 3:1155-1156.

Hills EC, Sandel ME (book review): Brain Injury Rehabilitation: Clinical Considerations, edited by M Alan, J Finlayson, S Garner. Baltimore, MD, Williams and Wilkins, 1994. *J Head Trauma Rehabil* 1995; 10:99-101.

Zasler ND, Giacino J, Sandel ME (letter): The Persistent Vegetative State. *N Engl J of Med* 1994; 331:1380-1383.

BOOK CHAPTERS

Sandel ME, Rubiano AM, Hawryluk G, Ajisebutu A. Traumatic Brain Injury Care: Historical Perspectives. In: *Brain Injury Medicine*, 3rd ed., Zasler N, Zafonte R, Katz D, et al., eds, New York: Springer Publishing, 2021.

Sanders AM, Sandel ME, Moreno A, Delmonico RD. Understanding, Assessing, and Treating Sexual Functioning After Traumatic Brain Injury. In: *Brain Injury Medicine*, 3rd ed., Zasler N, Zafonte R, Katz D, et al., eds, New York: Springer Publishing, 2021.

Sandel ME. Concussion and Traumatic Brain Injury. In: *Chapman's Comprehensive Orthopedic Surgery*. New Delhi, India: Jaypee Medical Publishers, 2018.

Deutsch A, Sandel ME. Post-Acute Rehabilitation Care and Triage. In: *Stroke Recovery and Rehabilitation*, 2nd edition, Stein J, Harvey R, et al., eds. New York: Demos, 2014.

Sandel ME, Delmonico RD, Kotch MJ. Sexuality and Intimacy after Traumatic Brain Injury. In: *Brain Injury Medicine*, 2nd edition, Zasler N, Zafonte R, Katz D, et al., eds, New York: Demos, 2012.

Sandel ME, Delmonico RD, Kotch MJ. Sexuality, Reproduction, and Neuroendocrine Disorders Following Traumatic Brain Injury. In: *Brain Injury Medicine*, Zasler N, Zafonte R, Katz D, eds, New York: Demos, 2006.

Cornwall K, Sandel ME. Nutritional Management. In: *Physical Medicine and Rehabilitation: The Complete Approach*. Grabis M, Garrison SJ, Hart KA, Lehmkuhl LD, eds., Cambridge MA: Blackwell Science, 1999.

Sandel ME, Robinson KM, Goldberg G, Graziani V, Michaud L. Contemporary Approaches in Neurorehabilitation. In: *Neurologic and Neurosurgical Emergencies*, Cruz J, ed., Philadelphia: W.B. Saunders, 1998.

Sandel ME, Zwil AS. Psychopharmacologic Treatment for Affective Disorders after Traumatic Brain Injury. In: *Physical Medicine and Rehabilitation Clinics of North America*, 8:743-762, 1997.

Sandel ME. Traumatic Brain Injury and Sexual Functioning. In: *Maintaining Sexuality with Disability and Chronic Illness: A Practitioner's Guide*. Sipski ML and Alexander, CJ, eds., Gaithersburg, MD: Aspen Publishers, 1997.

Sandel ME. Sexuality and Reproduction After Traumatic Brain Injury. In: *Medical Rehabilitation of Traumatic Brain Injury*. Lawrence J. Horn, MD and Nathan Zasler, MD, eds., Philadelphia: Hanley and Belfus, 1996.

Sandel ME, Labi ML: Outcome Prediction: Clinical and Research Perspectives. In: Sandel ME and Ellis DW, eds., *The Coma-Emerging Patient. Physical Medicine and Rehabilitation: State of the Art Reviews*, Philadelphia, Hanley and Belfus, October 1990.

Sandel ME. Interventions in the Inpatient Setting. In: *Neuropsychological Treatment After Brain Injury*, Ellis DW and Christianson AL, eds., Boston: Kluwer Academic Press, 1989.

BOOKS

Sandel E. *Shaken Brain: The Science, Care, and Treatment of Concussion*. Cambridge, MA: Harvard University Press, 2020.

Sandel ME, Ellis DW, eds. *The Coma-Emerging Patient*. Physical Medicine and Rehabilitation: State of the Art Reviews, Philadelphia: Hanley and Belfus, 1990.

OTHER PUBLICATIONS

Sandel ME. The Early History of Physical Medicine and Rehabilitation. AAPM&R Knowledge Now, 2023: <https://now.aapmr.org/the-history-of-the-specialty-of-physical-medicine-and-rehabilitation/>

Sandel ME. The Philosophical Foundations of Physical Medicine and Rehabilitation. AAPM&R Knowledge Now, 2019: <https://now.aapmr.org/the-philosophical-foundations-of-physical-medicine-and-rehabilitation/>

Sandel ME, Conway R, Gerber NL. A Celebration of AAPM&R's 75th Anniversary: Physicians Adding Quality of Life for 75 Years and Counting, 2013: https://www.aapmr.org/docs/default-source/about-aapm-r/aapmr75anniversarypublication.pdf?sfvrsn=35e507c_2

Sandel ME. The Ashley Case. Ethics Rounds, Kaiser Northern California 2007; 17:2.

Sandel ME, et al. Provider's Handbook: Individuals with Disabilities. Kaiser Permanente National Diversity Council; Institute for Culturally Competent Care, 2004.

Sandel, ME. Sexual Dysfunction after Brain Injury: Assessment and Treatment Options, Brain Injury Source, Vol. 5 (3), Brain Injury Association, Summer 2001.

Sandel ME. Traumatic Brain Injury: Causes and Consequences. In: Family Articles about Traumatic Brain Injury. *Communication Skill Builders* 3128:3-4,1994.

Sandel ME, Labi MLC, Spettell CM. Physical Medicine and Rehabilitation Training in Traumatic Brain Injury: Results of a Questionnaire Survey. *Association of Academic Physiatrists Newsletter*, Fall 1991.

Sandel ME. Nutritional Management of the Brain Injured Patient. In: *New Jersey Rehabilitation Magazine*, May 1991.

Apter S, Sandel, ME, et al. *Brain Injury - A Family Guide*. Magee Rehabilitation Hospital, 1986.

See University of California Bancroft Library for Dr. Sandel's oral history:
<https://bancroft.berkeley.edu/ROHO/projects/kaiser/interviews.html>

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Boston University School of Theology, Boston, MA; M.Div. program, 1971-1972

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