CURRICULUM VITAE

**PETER HOWARD GORMAN, MD MS FAAN FASIA**

Professor, Department of Neurology

University of Maryland School of Medicine

**DATE: January 3, 2023**

**CONTACT INFORMATION**

University of Maryland Rehabilitation and Orthopaedic Institute

2200 Kernan Drive

Baltimore, Maryland 21207

Office: (410) 448-6265

Fax: (410) 448-6617

[pgorman@som.umaryland.edu](mailto:pgorman@som.umaryland.edu)

Working knowledge: Spanish

**EDUCATION**

1975 - 1979 Sc.B. Biomedical Engineering

Brown University, Providence, Rhode Island

1979 - 1982 M.S. Biomedical Engineering

Case Western Reserve University, Cleveland, Ohio

(Thesis: The effect of stimulus parameters on the recruitment characteristics of direct nerve stimulation, J. T. Mortimer, Ph.D. advisor)

1981 - 1985 M.D. The Ohio State University

School of Medicine, Columbus, Ohio

**POST GRADUATE EDUCATION AND TRAINING**

Internship (Medical)

1985 - 1986 University of Maryland Hospital

Baltimore, Maryland

Residency (Neurology)

1986 - 1989 University of Maryland Hospital

Baltimore, Maryland

Fellowship (Rehabilitation and Electromyography)

1989 - 1991 MetroHealth Medical Center

Case Western Reserve University

Cleveland, Ohio

**CERTIFICATIONS**

1991 Diplomate, American Board of Psychiatry & Neurology

1. Certified Member, American Society of Neurorehabilitation

1998 American Board of Electrodiagnostic Medicine

1998, 2006, 2017 Subspecialty Certification in Spinal Cord Injury Medicine, American Board of

Physical Medicine and Rehabilitation, Recertified in 2006 and 2017

2019-2021 BLS and ACLS Certifications expire 2023

**MEDICAL LICENSURE**

1987 Maryland License, active

1989 Ohio, inactive

2001 West Virginia, inactive

**ACADEMIC APPOINTMENTS**

1989 -1991 Instructor in Neurology

Case Western Reserve University

1991 - 1997 Assistant Professor of Neurology

University of Maryland School of Medicine

1997 - 2021 Associate Professor of Neurology

University of Maryland School of Medicine

1999 - 2000 Special Volunteer, Human Cortical Physiology Section, NINDS, National Institutes of Health (Sabbatical Year)

2008 - 2021 Associate Professor, Secondary Appointment

Physical Therapy & Rehabilitation Science

University of Maryland School of Medicine

July 2021 Professor of Neurology and Physical Therapy & Rehabilitation Science

University of Maryland School of Medicine

**OTHER EMPLOYMENT**

2001 - 2004 Camp Physician, Timber Ridge Camp, High View, West Virginia

One week per summer for 4 consecutive years

**PROFESSIONAL SOCIETY MEMBERSHIPS**

1987 - present American Academy of Neurology, Fellow Category since 2007

1990 - 2014 American Congress of Rehabilitation Medicine

1991 - 2010 American Paraplegia Society

1992 - present American Society of Neurorehabilitation, Certified Member

1993 - present American Spinal Injury Association

2010 - present Academy of Spinal Cord Injury Professionals

2019 - present International Spinal Cord Society (ISCoS)

**HONORS AND AWARDS**

1979 -1981 Public Health Service NRSA Fellowship Award.

1982 Election to Landacre Society, an OSU Honorary Research Society.

1984 Letter of Commendation in Neurology.

1985 Preventive Medicine Outstanding Performance Award.

Honors received in Preventive Medicine, Radiology, and Computers in Clinical

Medicine, an elective rotation taken at the NIH.

1991 Scientific Achievement Award, Second Place, Fellows Category, MetroHealth Medical Center, Case Western Reserve University.

1. Golden Goniometer Award for Excellence and Dedication to Academic Instruction and Professional Mentorship, Sinai/Hopkins Residency Training Program in Physical Medicine and Rehabilitation

1998, 2002 VA Gold Pin Award for excellence in clinical care.

2002 Sidney and Elizabeth Licht Award for Excellence in Scientific Writing, American Congress of Rehabilitation Medicine

2004 Golden Goniometer Outstanding Teaching Award for Excellence and Dedication to Academic Instruction and Professional Mentorship, Sinai/University of Maryland Residency Training Program in Physical Medicine and Rehabilitation

2005 Hero Award, University of Maryland Shock Trauma Gala

2007 Fellow, American Academy of Neurology

2009 Healthcare Hero Finalist, Advancements in Health Care Category, The Daily Record, Baltimore, MD

2009 20-year Service Award, Department of Veterans Affairs

2010 Voted one of Baltimore Magazine’s 2010 “Top Docs”

2011, 2012 Voted Washington, DC-Baltimore-Northern Virginia 'Super Doctor'

2012, 2013 Voted one of Baltimore Magazine’s 2012 and 2013 “Top Docs”

2014 25-year Service Award, Department of Veterans Affairs

2018 Delaware Maryland Chapter of the PVA, Clinician Service Award

2020 Fellow, American Spinal Injury Association

2022 FY2023 PVA Speedy Award (Non-Member category)

**CLINICAL ACTIVITIES**

1992 - 2000 Attending, Neurology ward and consult service

Baltimore VA Medical Center

two months per year ongoing commitment

1993 – 2022 Attending Physician & Director of the SCI Support Team Clinic

VA Maryland Health Care System

Originated the outpatient SCI practice in 1993

6 hours/week, approx 6 patients

2000 – 2010 Attending Physician, Wheelchair prescription clinic

VA Maryland Healthcare System

4 hours/ every other week, 10-12 patients

2000 – present Spinal Cord Injury and Neurologic Rehabilitation outpatient practice, including management of baclofen pumps, botulinum toxin injection management of spasticity, and electromyography

UM Rehabilitation and Orthopaedic Institute

12 hours/week, 8-12 outpatients (2000-2019), 16 hours/week, 12-16 outpatients (2019-present)

2000 - 2008 Attending Physician on the Spinal Cord Injury Unit

Kernan Orthopaedics and Rehabilitation Hospital

30 hours/week

6 - 15 inpatients at all times (12 months/year)

Weekend call every 4th week

2009 Attending Physician on the Traumatic Brain Injury Inpatient Unit

Kernan Orthopaedics and Rehabilitation Hospital

30 hours/week

6-10 inpatients

2010 - 2013 Attending Physician on the Spinal Cord Injury Unit

Kernan Orthopaedics and Rehabilitation Hospital

30 hours/week

4-6 inpatients at all times (12 months/year)

Weekend call every 4th week

2010 – 2013 Weekly discharge rounds, Shock Trauma Center, each Wednesday

2013 Attending Physician on the Traumatic Brain Injury Inpatient Unit

University of Maryland Rehabilitation and Orthopaedic Institute; 30 hours/week, 8-12 inpatients.

2013 – 2020 Spinal Cord Injury Unit weekend coverage every 4th to 5th week

2014, 2015 Inpatient Coverage at the Requard Center for Acute Rehabilitation, University of Maryland Shore Health Medical Center at Easton, Easton, Maryland, one week each year

2016 - 2020 Attending Physician on the CVA and TBI Units, University of Maryland Rehabilitation and Orthopaedic Institute, load of 8 inpatients, 5 months

2017 – 2019 NFL Concussion Settlement Baseline Assessment Program certified - physician.

2020 - present Attending Physician on the SCI Unit, University of Maryland Rehabilitation and Orthopaedic Institute, load of 10 inpatients, average 6 months /year

2020 - present Weekend call coverage for SCI, CVA and TBI units, every 4th or 5th weekend.

2020 - present Attending physician, Neurology outpatient residency clinic, 4 afternoons per year.

2020 - present Attending physician, satellite Epilepsy Monitoring Unit, University of Maryland Rehabilitation and Orthopaedic Institute, load of 1-2 patients, equivalent of 3 months / year.

**ADMINISTRATIVE SERVICE**

**Institutional Service**

1991 - 1995 Chief, Physical Medicine and Rehabilitation Service

Baltimore Department of Veterans Affairs Medical Center

1991 - 1996 Member, Clinical Executive Board, Baltimore VA Medical Center.

1992 - 1998 Member, Internal Advisory Committee, GRECC, Baltimore VAMC.

1992 - 2000 Member, Cancer Committee, University of Maryland Medical System.

1995 - 1996 Chairman, Rehabilitation Services Facility Integration Committee, VA Maryland Health Care System

1995 - 1996 Member, Research Services Facility Integration Committee, VA Maryland Health Care System

1995 - 1999 Chief, Physical Medicine and Rehabilitation Service

VA Maryland Health Care System

Baltimore VA Medical Center

Perry Point VA Medical Center

Ft. Howard VA Medical Center

Loch Raven Rehabilitation and Extended Care Center

1996 - 1998 Member, Prosthetics Task Force, VISN #5

1996 - 1998 Member, Long Term Care Task Force, VISN #5

1996 - 2000 Member, VISN #6 Strategic Planning Board Spinal Cord Injury Sub-Council

1998 Member, Clinical Privileges Committee, VAMHCS

2000 - 2013 Director, Spinal Cord Injury Service

Kernan Orthopaedics and Rehabilitation Hospital

2004 - 2005 Acting Chief, Division of Rehabilitation Medicine

Department of Neurology, University of Maryland School of Medicine

2004 - present Chief, Division of Rehabilitation Medicine

Kernan Orthopaedics and Rehabilitation Hospital / University of Maryland Rehabilitation and Orthopaedic Institute (UM Rehab)

2005 - present Chief, Division of Rehabilitation Medicine

Department of Neurology, University of Maryland School of Medicine; *Established the Rehabilitation Research Center at UM Rehab*

2004 - 2016 Alternate Delegate, School of Medicine Council

2004 - present Member, Medical Executive Committee, Kernan Orthopaedics and Rehabilitation Hospital

2006 - 2015 Participant as “Ask the Expert” on the UMM web site: <http://www.umrehabortho.org/rehabilitation/spinal_cord.htm>

2008 - 2012 Treasurer, Medical Executive Committee, Kernan Orthopaedics and Rehabilitation Hospital

2008 Member, Shock Trauma Center Leadership Initiative Committee

2008 - 2013 Member, Institutional Review Board, University of Maryland at Baltimore

2010 Internal Reviewer, Pilot Proposal, University of Maryland Claude D. Pepper Older Americans Independence Center

2011 - present Member, University of Maryland Older Americans Independence Center (UM-OAIC) Data and Safety Monitoring Board (DSMB).

2012 - 2014 President elect, Medical Executive Committee, Kernan Orthopaedics and Rehabilitation Hospital

2014 Reviewer, UM-OAIC Junior Scholar Application

2014-2016 Chairman, Medical Executive Committee and President, Medical Staff, University of Maryland Rehabilitation and Orthopaedic Institute; *Initiated MEC excellence awards to recognize staff throughout the hospital annually.*

2015 Member, University of Maryland Rehab & Ortho Strategic Planning Steering Committee

2015- present Member, Continuous Performance Improvement Committee (CPIC), University of Maryland Rehabilitation and Orthopedic Institute

2017-present Member, Credentialing Sub-Committee, University of Maryland Rehabilitation and Orthopaedic Institute

2017-present Chairman, Research Sub-Committee, University of Maryland Rehabilitation and Orthopaedic Institute

**Local Service**

1995 - 2000 Member, Internal Advisory Panel, Project Program Grant in the Management of Persons with Disabilities, Department of Physical Medicine and Rehabilitation, The Johns Hopkins University School of Medicine, Barbara DeLateur, M.D. Principal Investigator

2019 - present Board member, Chesapeake Physicians for Social Responsibility

**National Activities**

***Active Memberships***

1997 Member, Rehabilitation Research and Development Director Search Committee, VA Central Office

2000 - 2006 Board Member, American Society of Neurorehabilitation.

2003 - 2012 Member, Research Committee, American Spinal Injury Association

2011 - present Councilor, Spine Section, American Academy of Neurology

2014 – 2021 Member, VA Cooperative Studies Program Planning Committee for CS #2003, “Exoskeletal-Assisted Walking in Persons with SCI: Impact on Quality of Life”

2015 - present Member, Consortium for Spinal Cord Medicine Steering Committee, Paralyzed Veterans of America, AAN Representative

2016 – present Member, Advocacy Committee, American Spinal Injury Association

2017 – present Member, Advisory Board, Adare Pharmaceuticals

2018 - 2020 Panel Member, Autonomic Dysfunction Clinical Practice Guideline Sub-Committee, Consortium for Spinal Cord Medicine, Paralyzed Veterans of America

2019 - present Member, Primary Care Committee, American Spinal Injury Association

***Clinical Activities***

1996 Volunteer Physician, Atlanta Paralympic Games, Atlanta, Georgia

1997 - 2000 CARF (Committee for Accreditation of Rehabilitation Facilities) Surveyor for Comprehensive Integrated Inpatient Rehabilitation and Spinal Cord Specialty Programs

***Data Safety Monitoring***

2015 - present Member, Clinical Safety Monitoring Committee, “Early Feasibility Study of the Networked Neuroprosthesis for Grasp and Trunk Function in Spinal Cord Injury”, Hunter Peckham, PhD principal investigator, Case Western Reserve University

2016 – present Chairman, Data Safety Monitoring Committee, “Early Feasibility Study of the Networked Neuroprosthesis for Grasp and Trunk Function in Spinal Cord Injury,” Hunter Peckham, PhD Principal Investigator, Case Western Reserve University

2017 - 2022 Member, Data Safety Monitoring Board, “Spinal Cord Stimulation for Restoration of Function in Lower-Limb Amputees”, Lee Fisher, PhD, Principal Investigator, University of Pittsburgh, Department of Physical Medicine and Rehabilitation.

2022 Chairman, Data Safety Monitoring Committee, “The Reynolds Innovative Spinal electrical Stimulation Program (RISES), Mijail Seruya, MD, PhD, Principal Investigator, Thomas Jefferson University, Department of Rehabilitation Medicine.

2022 - present Chairman, Data Safety Monitoring Committee, “Investigation of the Cortical Communication (CortiCom) System”, Nathan E. Crone MD, Principal Investigator, Johns Hopkins University, Department of Neurology.

***Editorships***

1991 Guest Editor, Special two volume issue, *Journal of Neurologic*

*Rehabilitation* entitled Interventional Approaches to Restoration of Motor Function volume 5(1, 2), 1991.

2008 - 2011 Section Editor, Spinal Cord Medicine, 2nd edition, Steve Kirshblum and Denise Campagnolo, editors.

2017 – 2018 Section Editor, Spinal Cord Medicine, 3rd edition, Steve Kirshblum and Vernon Lin, editors.

2020 - 2021 Guest editor, PLOS ONE

***Educational Activities***

1996 Question Writer, Special Qualifications in Spinal Cord Injury Medicine Examination, American Board of Physical Medicine and Rehabilitation

1996 Curriculum Director, American Society of Neurorehabilitation Workshop entitled “Neurorehabilitation of Spinal Cord Injury, Spinal Cord Disease, and Neuromuscular Disease”, The James Lawrence Kernan Hospital, Baltimore, Maryland. Week-long course for neurorehabilitation physicians.

2004 Dinner Seminar Director for 7DS.001: *Neurorehabilitation: Central Nervous System Recovery and Reorganization through Therapy*, 56th Annual Meeting of the American Academy of Neurology, San Francisco, California

2017 Symposium Organizer, “Spasticity Management Across Modalities and Diseases”, American Society of Neurorehabilitation Annual Meeting, Baltimore, MD.

***Grant Review***

1997 Peer Reviewer, Paralyzed Veterans of America Spinal Cord Research

Foundation, March 1997. (1x/yr)

2001 Member, VA Rehabilitation R&D Service Special Solicitations Review Committee, May 2001

2008 - 2009 Reviewer, The Craig H. Neilsen Foundation (1x/yr)

2011 Scientist Reviewer, 2010 Spinal Cord Injury Research Program Qualitative Research/Clinical Trials-Rehabilitation Peer Review Panel, Congressionally Directed Medical Research Programs, Department of Defense

2011 Reviewer, The Craig H. Neilsen Foundation (1x/yr)

2021 Reviewer, Wings for Life Foundation

***Journal Review***

1995 Reviewer, *Paraplegia* January 1995. (1x/yr)

1997 Reviewer, *Journal of Rehabilitation Research and Development* (1x/yr)

1999 Reviewer, *The Neurologist* (1x/yr)

2006 Reviewer, *Archives Physical Medicine and Rehabilitation* (1x/yr)

2007 Reviewer, *Journal of Rehabilitation Research and Development* (1x/yr)

2011-12, 2014-18 Reviewer, *Journal of Spinal Cord Medicine* (3x/yr)

2014 Reviewer, *Multiple Sclerosis International* (1x/yr)

2015 Reviewer, *The Journal of Visualized Experiments (JoVE)* (1x/yr)

2016 Reviewer, *British Medical Journal (1x/yr)*

2017 Reviewer, *European Journal of Applied Physiology*

2018 Reviewer, *British Medical Journal Open (1x/yr)*

2019 Reviewer, *Journal of Applied Physiology (1x/yr)*

2019 Reviewer, *Spinal Cord Series and Cases (1x/yr)*

2019 - present Reviewer, *Spinal Cord (1x/yr)*

2020 Reviewer, *PLOS ONE (1x/yr)*

2022 Reviewer, *Stem Cells* (1x/yr)

***Promotion Review***

2021 External referee for promotion of Mary Ann Richmond MD DVM, to associate professor, Dept of Medicine, Case Western Reserve University

2021 External referee for promotion of Victoria Whitehair, MD, to associate professor, Department of Physical Medicine and Rehabilitation, Case Western Reserve University

**Teaching Service**

***Student Teaching***

1991 Ph.D. Thesis committee for two graduate students, Department of Biomedical Engineering, Case Western Reserve University School of Medicine

1992 - present Freshman Physical Diagnosis small group sessions, 10 - 12 students one hour per year

1994 - present Neurologic Examination small group session for 2nd year medical students, 8 students one hour per year

1996 Research Rotation Mentor for medical student, David Heydrick,

4th year student, UMSOM.

2004 - 2010 Director, 4th year student elective in rehabilitation medicine, Kernan Orthopaedics and Rehabilitation Hospital, 5 students per year, 1 to 3 hours spent per student

2017 Treatment & Rehabilitation for Cerebrovascular Diseases, Pathophysiology & Therapeutics, II (MSPR 522) Small Group session, February 15, 2017, 10 students, one hour

2020 Preceptor Pathophysiology & Therapeutics II Medical Student Course, 10 students, one hour

2021 Lecturer, Medical Student Course 513: Brain and Behavior, Lecture 75, Introduction to Neurorehabilitation, one hour.

***Resident/Fellow Teaching***

1993 - 2000 Assistant Program Director, Sinai/Johns Hopkins PM&R Residency Training Program, 4 residents/year

1995 - 2000 Electromyography Lecture to Orthopedic Residents, UMMS

1995 - 2004 Spasticity Lecture to Neurology Residents, Lunch Ambulatory Series, UMMS

1996 - present Spinal Cord Injury, Peripheral Neuropathy and Multiple Sclerosis Lectures to

PM&R Residents, Sinai/Hopkins and Sinai/Maryland PM&R Residency

Programs

1996 Spinal Cord Injury Medicine Lecture to Medicine Residents, UMMS

1996 Neuro-urology in Spinal Cord Injury Lecture to Urology Residents, UMMS

2000 - present Assistant Program Director, Sinai/University of Maryland PM&R Residency Training Program, 4 residents/year

2004 - 2009 Director, Fellowship in Spinal Cord Injury Medicine, Kernan Orthopaedics

and Rehabilitation Hospital, ACGME accredited through 2010, 1 fellow/year

2009 - 2010 Supervisor, PM&R Resident from the Johns Hopkins Residency Training

Program in Physical Medicine and Rehabilitation on the Traumatic Brain

Injury Service, Kernan Hospital, 1 resident, 12 months/year.

2010 - 2012 Spinal Cord Injury Medicine Rotation Proctor, Walter Reed Army Medical

Center PM&R Residency Training Program. 6 months/year

2012- 2013 Spinal Cord Injury Medicine Rotation Proctor, University of Maryland School

of Medicine Neurology Residency Training Program, 3 months/year

2012- present Spinal Cord Injury Outpatient Clinic Proctor, Baltimore VA Medical Center,

for both Sinai/University of Maryland PM&R Residency Training Program

and University of Maryland Neurology Residency Training Program, 4hrs/wk

2013, 2014 Nontraumatic Myelopathy Lecture to Johns Hopkins PM&R Residents

2013-2014 Spinal Cord Emergencies Lecture to University of Maryland Neurology

Residents

2014 Spinal Cord Injury Review Lecture to Sinai/UM PM&R Residents

2015 Sexuality in Spinal Cord Injury Lecture to Sinai/UM PM&R Residents

2017 Spinal Cord Injury Review Lecture to Sinai/UM PM&R Residents

2017- present Local Program Director, Hopkins PM&R Resident Program Rotations at University of Maryland Rehabilitation and Orthopaedic Institute.

2020 Guest Resident Lecture, Department of Internal Medicine, UMMC-Midtown

2020 – present Neurology Resident Outpatient clinic attending – 4 afternoons / academic year

2021 Electromyography Lecture to Anesthesia Pain Fellows, UM Rehab and Ortho

***Junior Faculty Mentoring***

2012 - 2020 Mentor for Michael Dimyan, MD in K23 award obtained July 2014.

2018 - present Mentor for Robynne Braun, MD PhD in K12 Neurorehabilitation and Restorative Neuroscience career development program application, award obtained April 2018.

***Other Mentoring***

2017 - 2019 Mentor for Sara Frye, MS OTR/L, 2017 Craig Neilsen Foundation-ASIA Allied Health Professional Research Award for study entitled “Evaluation of Splinting in Tetraplegia”, $25,000.

**GRANT SUPPORT**

**Active Grants**

09/01/2017- (Co-Investigator: 6%; PI: Deborah Stein, MD/Gary Schwartzbauer, MD)

2022 “The Use of Acupuncture in Potentiating Functional Recovery in Spinal Cord Injury Subjects”

Department of Defense Congressionally Directed Medical Research Program – Spinal Cord Injury Research Program – Clinical Trial Award –Rehabilitation, Grant Number W81XWH-17-1-0658

Annual direct costs: $401,941.20

Total direct costs: $1,592,168.19

**Active Contracts**

2013 – present (Sub-Investigator donated time, PI: Bizhan Aarabi, MD)

“A Multi-Center, Randomized, Placebo-Controlled, Double-Blinded, Trial of Efficacy and Safety of Riluzole in Acute Spinal Cord Injury”

AOSpine North America Research Network SPN-12-001

**Completed Grants**

1990 - 1991 (PI – 60%)

“Quantitative Electromyographic Evaluation of Spinal Cord Injured Quadriplegic Patients. Application to Functional Electrical Stimulation.”

Mary E. Switzer Rehabilitation Research Fellowship Award

National Institute on Disability and Rehabilitation Research,

Annual direct costs: $31,500

Additional funds on the same topic provided by

MetroHealth Foundation Inc.

Annual direct costs: $8,400

1992 - 1996 (Co-Investigator – 20% PI: P. Hunter Peckham, CWRU)

“Clinical Implementation and Evaluation of an Implantable Neuromuscular Stimulator for Restoration of Hand Grasp in Quadriplegia”

FES Satellite Center Grant, Department of Veterans Affairs

Annual direct costs: $56,000

Total direct costs: $170,000

1993 - 1996 (Co-PI 5% PI: Mary Rodgers, PhD)

“Wheelchair Propulsion Performance in Young, Middle-Aged, and Elderly”

VA Rehabilitation R&D Merit Review #92-465A

$313,000 award over three years

1995 - 1996 (Contract investigator, donated time)

“Clinical Evaluation of the Helping Hand (A Wheelchair Mounted Robotic

Arm)”

VA Rehabilitation R&D Service, Technology Transfer Section

Annual Direct costs: $10,655

1997 - 2000 (Co-PI, 5% effort, PI: Mary Rodgers, PhD)

“Physical Performance Measures for Young, Middle-Aged, and Elderly

Manual Wheelchair Users”

VA Rehabilitation R&D Merit Review #B2168RA,

Annual direct costs: $131,000

Total direct costs: $393,100

1998 (Co-investigator, donated time)

“Processes, Structure, and Outcomes of Post-Stroke Rehabilitation Care”

VA HSR&D Merit Review #ACC97-1141,

$25,000 award

1999 - 2000 Career Development Enhancement Award

“Rehabilitation Implications of Changes in Cortical Maps after CNS or Body

Injury”

VA Rehabilitation Research and Development Service

Provided salary support for sabbatical leave at the Human Cortical Physiology

Section, NINDS, NIH

2001 - 2002 (Co-Investigator, donated time PI: Dr. Steven Weigner, JHMI)

“The Role of Hope in Spinal Cord Injury Rehabilitation”

Paralyzed Veterans of America.

Total direct costs: $30,000

2002 - 2004 (PI – 5% donated time)

“A Blinded Controlled Study of Alendronate in Chronic Spinal Cord Injury”

VA Rehabilitation R&D Merit Review # B29570

Annual direct costs: $49,500

Total direct costs: $99,000

2003 - 2006 (Co-PI, 5% donated time, PI: Mary Claire Roghmann MD)

“Molecular Epidemiology of Antibiotic Resistance after Spinal Cord Injury”

VA Medical Research Service Merit Review

Total direct costs: $418,900

2006 - 2010 (PI, 20%)

“Cardiovascular Parameters for Lokomat Training in Chronic Incomplete

Spinal Cord Injury”

VA Merit Review Award, Rehabilitation Research and Development Service

Annual direct costs: $150,000

Total direct costs: $450,000.

2007 - 2009 (Co-investigator, 2% PI: Jay Menaker MD)

“Does Aggressive Blood Pressure Management after Acute Spinal Cord Injury Improve Functional Outcome?”

Maryland Board of Spinal Cord Injury Research

Annual direct costs: $79,365

Total direct costs: $158,730

2007 - 2009 (Co-investigator, 3% PI: Bizhan Aarabi MD)

“Functional Outcome and Quality of Life Following Decompressive Surgery

for Traumatic Central Cord Syndrome”

Maryland Board of Spinal Cord Injury Research

Annual direct costs: $87,620

Total direct costs: $175,240

2009-2012 (Co-PI 2%, PI: Jay Menaker, MD)

“Does Aggressive Blood Pressure Management After Acute Spinal Cord

Injury Improve Functional Outcome?”

Christopher and Dana Reeve Paralysis Foundation

Annual direct costs: $ 67,201

Total direct costs: $ 133,955

2010 - 2015 (PI, 12%)

“Robotic Weight Support Treadmill Training and Aquatic Exercise

Comparison in Chronic Motor Incomplete Spinal Cord Injury”

Department of Defense Congressionally Directed Medical Research Program

– Spinal Cord Injury Research Program – Clinical Trial Award –

Rehabilitation, Contract No W81XWH-10-1-0981

First year direct costs: $ 467,164

Total direct costs $ 1,486,158

2012 - 2013 (Co-PI 1.5% PI: Irene Estores, MD)

“Auricular Acupuncture for Spinal Cord Injury Related Neuropathic Pain”

Paralyzed Veterans of America Research Foundation Grant #2806

Direct costs: $75,000

2014 - 2015 (Co-Investigator; donated time, PI: Mary Claire Roghmann, MD)

“Antibiotic resistant Gram-negative bacteria and the Gut Microbiome in Adults with Spinal Cord Injury (SCI)”

Funded by a Pilot Grant Award from VISN 5, Dept of Veterans Affairs.

2014 - 2019 (Co-PI: 5% on Sub-Award; PI: Ann Spungen, Ph.D.)

“A Randomized, Crossover Clinical Trial of Exoskeletal-assisted Walking to Improve Mobility, Bowel Function and Cardio-Metabolic Profiles in Persons with SCI”

Department of Defense Congressionally Directed Medical Research Program – Spinal Cord Injury Research Program – Clinical Trial Award – Rehabilitation, Grant Number SC130234

First year direct costs: $113,145

Total direct costs $ 426,723

**Completed Contracts**

1998 - 1999 (Local PI)

A Double-Blind, Placebo-Controlled Study of the Effect of Recombinant

Methionyl Human Neurotrophin-3 (NT-3) on Bowel Function in Patient with

Paraplegia Due to Spinal Cord Injury or Multiple Sclerosis.

Regeneron Pharmaceuticals, Inc.

$49,243.20 contract.

2002 - 2003 (U.S. Lead Investigator)

A Multiple Dose, Double-Blinded, Placebo-Controlled, Safety, Tolerability,

and Pharmacokinetic/Pharmacodynamic Study of HP184 in Chronic Spinal

Cord Injury,

Aventis Pharmaceuticals, Inc.

$222,006 total budget.

2005 (Local PI)

A Phase II, Double-Blind, Placebo-Controlled, Multicenter Study to Assess the Efficacy and Safety of HP184 at 100, 200, and 400 mg Doses Administered Orally Once Daily for Twenty-four Weeks in Adult Subjects with Chronic Spinal Cord Injury (CSCI)

Sanofi-Aventis Pharmaceuticals, Inc.

$114,560 total budget

2008 (Local PI)

A four week, prospective, randomized, double blind, placebo-controlled trial to assess safety, tolerability, pharmacokinetics and preliminary efficacy of AV650 in patients with spasticity due to spinal cord injury.

Avigen, Inc.

$78,586 total budget.

2011 (Local PI)

“A Phase 1 Safety Study of GRNOPC1 in Patients with Neurologically Complete, Subacute, Spinal Cord Injury”

Geron Corporation. Menlo Park, CA

Cost per patient: $47,106

Total study cost at full enrollment: $148,145

2011 (Local PI)

“Long Term Follow-up of Subjects who received GRNOPC1”

Geron Corporation, Menlo Park, CA

Cost per patient: $23,759

Total study cost at full enrollment: $71,279

2012 (PI – 5%)

“An Evaluation of the Burden of Illness among Adults in the United States with Peripheral and Center Neuropathic Pain” Pfizer Inc., Outcomes Research

Total study cost at full enrollment: $15,150

2014 – 2017 (Sub-Investigator, Local PI: Michael Dimyan, MD)

“Adult Spasticity Registry of OnabotulinumtoxinA Treatment”

Allergan, Inc. GMA-BTX-SP-12-001

Total study cost at full enrollment: $102,528

2015 - 2016 (Co-Investigator, Local PI: Bizhan Aarabi, MD)

“A Single-Blind, Randomized, Parallel Arm, Phase I Proof-of-Concept Study of the Safety and Efficacy of HuCNS-SC Transplantation in Cervical Spinal Cord Injury”

StemCells, Inc. Protocol CL-SCI-201

2017 (Sub-Investigator, Local PI: Eugenio Rocksmith, MD)

A Phase 2, multicenter, randomized, double-blind, placebo-controlled study to assess the efficacy, safety, and tolerability of AVP-786 (deuterated [d6]-dextromethorphan hydrobromide [d6-DM]/quinidine sulfate [Q]) for the treatment of neurobehavioral disinhibition including aggression, agitation, and irritability in patients with traumatic brain injury. Avanir 17-AVP-786-205

2021 (Local PI)

“An Observational Clinical Study of Patients with Spasticity associated with Spinal Cord Injury” Protocol GWSC19216, 13000-CCT 4649-21. Pharmaceutical Research Associates. Anticipated 25 patients, cost per patient $3907.48; study stopped by sponsor

**Non-Funded Research Collaboration**

2017- Present (Co-Investigator, PI - Pablo Celnik, MD JHMI)

Investigation on the Bidirectional Cortical Neuroprosthetic System (BiCNS)

Defense Advanced Research Project Agency (DARPA)

Johns Hopkins University, Department of Physical Medicine and Rehabilitation.

**PUBLICATIONS**

**Peer-reviewed Journal Articles**

1. **Gorman PH** and Mortimer JT. The effect of stimulus parameters on the recruitment characteristics of direct nerve stimulation. IEEE Transactions on Biomedical Engineering, Vol. BME-30: 407-414 (1983). PMID: 6604691

2. **Gorman PH**, Rigamonti D, and Joslyn JR. Intramedullary and Extramedullary Schwannoma of the Cervical Spinal Cord: Case Report. Surgical Neurology 32:459-62 (1989). PMID: 2636798

3. Carter RR, Crago PE, and **Gorman PH**. Nonlinear Stretch Reflex Interaction during Cocontraction. J. Neurophysiology, 69(3): 943-952 (1993). PMID: 8385202

4. Macko RF, DeSouza CA, Tretter LD, Silver KH, Smith GV, Anderson PA, Tomoyasu N, **Gorman P**, Dengel DR. Treadmill Aerobic Exercise Training Reduces the Energy Expenditure and Cardiovascular Demands of Hemiparetic Gait in Chronic Stroke Patients: A Preliminary Report. Stroke 28:326-330 (1997).

5. **Gorman PH**, Stroh-Woulle K, Peckham PH, Heydrick D. Patient Selection for an Upper Extremity Functional Electrical Stimulation Neuroprosthesis in Tetraplegia. Spinal Cord 35:569-573 (1997). PMID: 9300960

6. **Gorman PH**, Kikta DG, Peckham PH. Neurophysiologic Evaluation of Lower Motor Neuron Damage in Tetraplegia. Muscle & Nerve 21: 1321-1323 (1998). PMID: 9736062

7. **Gorman PH**. An Update on Functional Electrical Stimulation after Spinal Cord Injury. J Neurorehabil Neural Repair 14(4):251-263 (2000). PMID: 11402876

8. Rodgers MM, Keyser RE, Gardner ER, Russell PR, **Gorman PH**: Influence of trunk flexion on biomechanics of wheelchair propulsion.J Rehabil Res Dev. 37:283-295 (2000).

9. Rodgers MM, Keyser RE, Rasch EK, **Gorman PH**, Russell PJ. Influence of training on biomechanics of wheelchair propulsion. J Rehabil Res Dev 38:505-511 (2001).

10. Peckham PH, Keith MW, Kilgore KL, Grill JH, Wuolle KS, Thrope JB, **Gorman PH**,

Hobby J, Betz R, Carroll S, Hentz VR, Wiegner A, for the Implantable Neuroprosthesis Research Group. Efficacy of an Implanted Neuroprosthesis for Restoring Hand Grasp in Tetraplegia: A Multicenter Study**.** Arch PM&R 82:1380-1388 (2001). PMID: 11588741

11. Peckham, PH and **Gorman PH**. Functional Electrical Stimulation in the 21st Century. Topics in Spinal Cord Rehabilitation 10(2): 126-150 (2004).

12. Roghmann MC, Wallin MT, **Gorman PH**, Johnson JA. Prevalence and Natural History of Colonization with Fluoroquinolone Resistant Gram-negative Bacilli in Community-dwelling People with Spinal Cord Dysfunction. Arch PM&R 87(10): 1305-1309 (2006). PMID: 17023238

13*.* Roghmann MC, **Gorman PH**, Wallin MT, Kreisel K, Shurland S. Johnson JA *Staphylococcus aureus* Colonization in Community-dwelling People with Spinal Cord Dysfunction. Arch PM&R. 88(8):979-983 (2007). PMID: 17678658

14. **Gorman PH**, Qadri SFA, Rao-Patel, A. Prophylactic Inferior Vena Cava (IVC) Filter Placement May Increase the Relative Risk of Deep Venous Thrombosis after Acute Spinal Cord Injury. J Trauma 66(3): 707-712 (2009). PMID: 19276742

15. Kortee KB, Gilbert M, **Gorman PH**, Wegener ST. Positive Psychological Variables in the Prediction of Life Satisfaction Following Spinal Cord Injury. Rehabilitation Psychology 55(1): 40-47 (2010). PMID: 20175633

16. **Gorman PH**. Unilateral Hyperhidrosis from a Contralateral Source in an Individual with C4 Complete Tetraplegia. J Spinal Cord Medicine 33(4): 428-430 (2010). PMID: 21061904

17**. Gorman PH**. The Review of Systems in Spinal Cord Injury and Dysfunction. Continuum: Lifelong Learning in Neurology, Volume 17(3) Neurorehabilitation; pp 630-634. June 2011. PMID: 22810872

18. Geigle P, Frye S, Perreault J, Scott W, **Gorman P**. Atypical Autonomic Dysreflexia during Robotically Assisted Body Weight Supported Treadmill Training in an Individual with Motor Incomplete Spinal Cord Injury. J Spinal Cord Medicine. 36(2): 153-156 (2013). PMID: 23809531

19. **Gorman PH**, Geigle PR, Chen K, York H, Scott W. Reliability and Relatedness of Peak VO2 Assessments during Body Weight Supported Treadmill Training and Arm Cycle Ergometry in Individuals with Chronic Motor Incomplete Spinal Cord Injury. Spinal Cord, 52: 287-291 (2014). PMID: 24534779

20. **Gorman PH**, Scott W, York H, Theyagaraj M, Price-Miller N, McQuaid J, Eyvazzadeh M, Ivey FM, Macko RF. Robotically Assisted Treadmill Exercise Training for Improving Peak Fitness in Chronic Motor Incomplete Spinal Cord Injury: A Randomized Controlled Trial. J Spinal Cord Medicine. 39(1):32-44 (2016). PMID: 25520035

21. Perreault J, Geigle PR, **Gorman PH**, Scott WH. Improvement in Weight Loss and Ambulation Outcomes after Gastric Sleeve Surgery for a Person with Chronic Motor Incomplete Tetraplegia: Clinical Case Report. Spinal Cord. 54:750-753 (2016). PMID: 26927296

22. Estores I, Chen K, Jackson B, Lao L, **Gorman PH**. Auricular Acupuncture for Spinal Cord Injury Related Neuropathic Pain: A Pilot Controlled Clinical Trial. J Spinal Cord Medicine. 40(4): 432-438 (2017). PMID: 26869339.

23. Geigle P, Ogonowska-Slodownik A, Slodownik R, **Gorman PH**, Scott WH. Measuring peak volume of oxygen (peak VO2) in deep water for individuals with spinal cord injury: protocol development. J Aquatic Phys Ther. 2018;26(1):30-35.

24. Ogonowska-Slodownik A, Geigle, P, **Gorman PH**, Slodownik R, Scott WH. Aquatic Deep Water Peak VO2 Testing for Individuals with Spinal Cord Injury. J Spinal Cord Medicine, 42(5) September 2019, p 631-638. PMID: 30632946

25. **Gorman PH**, Scott W, VanHiel L, Tansey K, Sweatman WM, Geigle P. Comparison of Peak Oxygen Consumption Response to Aquatic and Robotic Therapy in Individuals with Chronic Motor Incomplete Spinal Cord Injury: A Randomized Trial. Spinal Cord. 2019 Jun;57(6):471-481. PMID: 30659286

26. Goodrich C, York H, Shapiro A, **Gorman PH**. Focal Arm Weakness following Intradetrusor Botulinum Toxin Administration in Spinal Cord Injury: Report of Two Cases. J. Spinal Cord Medicine. 2020 November, 43(6): 904-907. PMID: 30702394

27. Spungen AM, Bauman WA, Biswas K, Jones K, Snodgrass AJ, Goetz L, **Gorman PH**, Kirshblum K, Sabharwal S, White KT, Asselin PK, Morin K, Cirnigliaro CM, and Huang GD. The Design of a Randomized Control Trial of Exoskeletal-Assisted Walking in the Home and Community on Quality of Life in Persons with a Chronic Spinal Cord Injury. Contemporary Clinical Trials Volume 96, September 2020, 106102, PMID 32800962.

<https://doi.org/10.1016/J.CCT.2020.106102>

28. Hong E, **Gorman PH**, Forrest GF, Asselin PK, Knezevic S, Scott W, Wojciehowski SB, Kornfeld S and Spungen AM. Mobility Skills with Exoskeletal-assisted Walking in Persons with SCI: Results from a Three Center Randomized Clinical Trial. Frontiers in Robotics and AI, Aug 20, 2020; 7(93). PMID: 33501260. <https://doi.org/10.3389/frobt.2020.00093>

29. Jahja E, Sansur C, **Gorman PH**. Spinal Arachnoiditis Leading to Recurrent Reversible Myelopathy: A Case Report. J Spinal Cord Medicine, 45(3):472-473,2022.. PMID: 33168210. <https://doi.org/10.1080/10790268.2020.1830250>.

30. Gatti MA, Sampayo MP, Rolandelli A, Yannone S, Argento FJ, Rivas ME, Broggi MS, Olmos LE, **Gorman P**. Demographic and clinical characteristics of individuals with traumatic spinal cord injury in Argentina from 2015 to 2019: a multicenter study. Spinal Cord Series and Cases6,109 (Dec 23, 2020), <https://doi.org/10.1038/s41394-020-00362-6>

31. **Gorman PH**, Forrest GF, Asselin PK, Scott W, Kornfeld S, Hong EK, Spungen AM. Exoskeletal-Assisted Walking Effect on Spinal Cord Injury Bowel Function: Results from a Randomized Trial and Comparison to other Physical Interventions. J. Clinical Medicine, March 2, 2021, 10(5), 964. PMID33801165. <https://doi.org/10.3390/jcm10050964>

32. Krassioukov A, Linsenmeyer T, Beck, L, Elliott S, **Gorman P**, Kirshblum S, .Vogel L, Wecht J, Clay S. Evaluation and Management of Autonomic Dysreflexia and Other Autonomic Dysfunctions: Preventing the Highs and Lows Management of Blood Pressure, Sweating, and Temperature Dysfunction. Top Spinal Cord Injury Rehabilitation (2021) 27 (2): 225–290. May 21, 2021, <https://doi.org/10.46292/sci2702-225>.

**Invited non-peer reviewed journal articles**

1. **Gorman PH**, and Peckham PH. Upper Extremity Functional Neuromuscular Stimulation. Journal of Neurologic Rehabilitation 5(1&2): 3-11 (1991).

2. Billian C, and **Gorman PH**. Upper Extremity Applications of Functional Neuromuscular Stimulation. Assistive Technology, 4(1): 31-39 (1992). PMID: 10171598.

**Book Chapters**

1. **Gorman PH**. Fever in Patients with Spinal Cord Injury. In: Mackowiak, P. (ed.): Fever: Basic Mechanisms and Management, 2nd edition. New York: Raven Press, 1997.

2. **Gorman PH**. Functional Electrical Stimulation. In: O'Young, BJ, Young, MA, and Stiens eds. Physical Medicine and Rehabilitation Secrets, Philadelphia: Hanley & Belfus, Inc. p 537-541, 1997.

3. **Gorman PH**. Functional Electrical Stimulation. In Lin, V. Spinal Cord Injury Medicine, New York: Demos Publications, 2002.

4. **Gorman PH**, Alon G, Peckham PH. Functional Electrical Stimulation. In Seltzer M. et. al. Textbook of Neural Repair and Rehabilitation. Cambridge: Cambridge University Press, pages 119-135, 2005.

5. Bhargava A, **Gorman PH**, Kelly D. Physical Examination in Spinal Trauma: American Spinal Injury Association Examination and Spinal Cord Injury Syndromes. In Atlas of Spine Trauma. Elsevier, page 28-36, 2008.

6. **Gorman PH**, Alon G, Kornhauser SH. Electrotherapy: Medical Treatment Using Electrical Currents. In O’Young, Young & Stiens, eds. Physical Medicine and Rehabilitation Secrets, 3rd Edition. Philadelphia: Mosby Elesvier, page 226-232, 2008.

7. **Gorman PH**, Ho C. Functional Electrical Stimulation. In Lin, V. Spinal Cord Injury Medicine, Second Edition. New York: Demos Publications, 2010.

8. **Gorman PH**, Peckham PH. Functional Electrical Stimulation in neurorehabilitation. In Seltzer M. et. al. Textbook of Neural Repair and Rehabilitation: Medical Neurorehabilitation, Volume 2. Second Edition, Cambridge: Cambridge University Press, pages 120-134, 2014.

9. **Gorman PH.**Disorders of the Spinal Cordin Baliga RR (editor). Textbook of Internal Medicine: An Intensive Board Review Book with 1480 Multiple Choice Questions. [www.MasterMedFacts.com](http://www.MasterMedFacts.com), Oct 2018.

10. **Gorman PH**, York H, Thomas FP, Kamin SS. Nontraumatic Myelopathies, Chapter 35 in Kirshblum S and Lin V, eds. Spinal Cord Medicine, 3rd Edition, Springer Publishing Company, p 607-616 (2018).

**Book Reviews**

1. MA Arbib and JA Robinson, Natural and Artificial Computation. Cambridge, MA: MIT Press, 1990. In: Neurology, 41:1710, 1991.

2. RB Stein, PH Peckham, and DB Popovic, Neural Prostheses: Replacing Motor Function after Disease or Disability. New York: Oxford University Press, 1992. In: Neurology, 43: 638, 1993.

3. J Cole, Still Lives: Narrative of Spinal Cord Injury. Cambridge, MA: MIT Press, 2004.

**Abstracts**

1. **Gorman PH**, Mortimer JT, and van den Honert C. Enhancing excitability differences between nerve fibers. Proceedings of the 33rd Annual Conference on Engineering in Medicine and Biology. (1980) p.63.

2. **Gorman PH**, Peckham PH, Kikta DG, Suwondo P. Quantitative Evaluation of the Extent of Lower Motor Neuron Damage in Quadriplegic Spinal Cord Injured Patients. Neural Prosthesis: Motor Systems III, Banff, Alberta, Canada, August 1991.

3. Peckham PH, Keith MW, Thrope GB, Naples G, Stroh KC, Hart RL, **Gorman PH**. Multicenter evaluation of a motor prosthesis for restoration of hand function. Annals of Biomedical Engineering, 19: 627, 1991.

4. **Gorman PH**, Wuolle K, Peckham PH. Patient Selection for an Upper Extremity Functional Electrical Stimulation Neuroprosthesis. J. Neurologic Rehabilitation 8: 84, 1994.

5. Macko RF, DeSouza CA, Tretter L, Cox DK, Silver KH, Smith GV, Anderson PA, Keyser R, **Gorman P**, Dengel D. Treadmill Endurance Training Reduces Energy Requirements of Hemiparetic Gait in Older Stroke Patients. Research Day, VA Maryland Health Care System, April 29, 1996.

6. Adamczyk MM, Crago PE, **Gorman PH**, Keith MW, Eglseder A, Marshall L, Bryden A, Kilgore K, Maher M. Voluntary and Stimulated Tendon Transfers for Integrated Neuroprosthetic Wrist/Hand Grasp Control in Tetraplegia. International Functional Electrical Stimulation Society Meeting, Cleveland, Ohio, June 1996.

7. Rodgers MM, **Gorman P**, Keyser R, Russell P. Wheelchair Propulsion Performance in Young, Middle-aged, and Elderly. Rehabilitation R&D Progress Reports Vol. 33: 29-30, June 1996.

8. Keyser RE, Rodgers MM, Russell PJ, **Gorman PH**. Cardiorespiratory Responses to Graded Exercise Tests and Sustained Submaximal Exercise on the Wheelchair Ergometer. American Physical Therapy Association Section on Research Newsletter 29(2): 17, 1997.

9. Keyser RE, Russell PJ, Rodgers MM, **Gorman PH**: Estimation of body fat by skinfold measurement in wheelchair users. *APTA Section on Research Newsletter*, 29(2): 19-20, 1997.

10. Rodgers MM, **Gorman PH**, Russell PJ, Keyser RB. Kinematic and Kinetic Effects of Training in Wheelchair Users. American Physical Therapy Association Section on Research Newsletter 29(2): 19, 1997.

11. Russell PJ, Rodgers MM, **Gorman PH**. Estimation of Body Fat by Skinfold Measurement in Wheelchair Users. American Physical Therapy Conference Newsletter Vol. 29:2, page 19, 1996.

12. Rodgers MM, Russell PJ, Keyser RE, Parker JA, **Gorman PH**. Effects of Training on Joint and Handrim Kinetics in Wheelchair Users. American Society of Biomechanics Conference Proceedings, 206-207, 1997.

1. Rodgers MM, Russell PJ, Keyser RE, Gardner ER, **Gorman PH**: Training effects on muscle activity during wheelchair propulsion in wheelchair users. Combined Sections Meeting of APTA, Feb. 1998.
2. Rodgers MM, Gardner ER, Russell PJ, Keyser RE, **Gorman PH**, Parker J: Fatigue-induced changes in Biomechanics and muscular activity during manual wheelchair propulsion. XIIth Congress of the International Society for Electrophysiology and Kinesiology (ISEK), June 1998.
3. Rodgers MM, Gardner ER, Russell PJ, Keyser RE, **Gorman PH**, Parker J: Fatigue-induced changes in Biomechanics and muscular activity during manual wheelchair propulsion. XIIth Congress of the International Society for Electrophysiology and Kinesiology (ISEK), June, 1998
4. Rodgers MM, Keyser RE, Gardner ER, Russell PJ, Parker J, **Gorman PH**: Influence of propulsion style on injury potential in wheelchair users. Proceedings of NACOB '98, The Third American Congress on Biomechanics*,* Waterloo, Canada, 73-4, 1998.
5. Rodgers MM, Keyser RE, Gardner ER, Russell PJ, **Gorman PH**: Effects of propulsion style and training on biomechanical and physiologic indices of wheelchair propulsion performance. The 2nd International Workshop "Biomedical Aspect of Manual Wheelchair Propulsion: The State of the Art II", Amsterdam, The Netherlands, Dec. 1998.
6. Harris-­Love MO, **Gorman PH**, Fiscella C: Pilot Study: Reliability of anaerobic fatigue indices derived from isometric and isokinetic maximal elbow flexion tests.  Medicine and Science in Sports and Exercise. 2001; 33(5): S29­S29  Abstract 164.
7. Harris-­Love MO, **Gorman PH**, Danoff JV: Correlation and reliability of anaerobic fatigue indices in healthy adults performing maximal isometric elbow flexion.  Journal of Orthopedic & Sports Physical Therapy.  2001; 31(1):A24­A25.  Abstract PO66.
8. **Gorman PH**, Harris­-Love MO, Cohen LG: Central fatigue induced by a sustained   
   maximum voluntary muscle contraction: a transcranial magnetic stimulation   
   study. Conference proceedings.  2003 APTA Annual Conference and Exposition,   
   Washington, DC.  Abstract PO­RR­44­F
9. **Gorman P**, Mody V, Jariwala N, Saoud J, Jenson BK, Shah B, Dutta A. Safety and tolerability of HP184, an oral sodium and potassium channel blocker, in chronic incomplete spinal cord injury: a Phase II study. J. Spinal Cord Medicine 27(2): 165, 2004. ASIA 30th Annual Meeting, Denver Colorado.
10. **Gorman P**, Mody V, Jariwala N, Saoud J, Jenson BK, Shah B, Dutta A. HP184, an oral dual-action sodium and potassium channel blocker, improves motor scores in chronic incomplete spinal cord injury (SCI): a Phase II study. J. Spinal Cord Medicine 27(2): 165, 2004. ASIA 30th Annual Meeting, Denver Colorado.
11. Ju Y**, Gorman P**. Avascular Necrosis as a Source of Knee Pain in a Patient with Multiple Sclerosis: A Case Report. Arch PM&R 85(9): e27, Sept 2004. AAPM&R Annual Meeting, Phoenix, AZ, 2004.
12. Dalton-Bethea S, **Gorman P**. Dramatic Recovery in an Acute Spinal Cord Injury Patient: A Case Report. Am. J. Phys. Med. Rehabil. 84(3): 206, March 2005. Annual Meeting of the Association of Academic Physiatrists, Tuscon, AZ, 2005.
13. Dalton-Bethea S, **Gorman P**. Factitious Paraplegia with Secondary Gain: A Case Report. Am. J. Phys. Med. Rehabil. 84(3): 206, March 2005. Annual Meeting of the Association of Academic Physiatrists, Tuscon, AZ, 2005.
14. **Gorman P**, Qadri S. Increased Risk of DVT after Prophylactic IVC Filter Placement in Acute Spinal Cord Injury. Platform presentation ASIA/IMSOP 32nd Annual Meeting, Boston, Massachusetts, June 2006. J. Spinal Cord Medicine 29(3): 261, 2006.
15. **Gorman P**, Roghmann M, Wallin M, Johnson, J. Prevalence of Resistance to Fluoroquinolones in Gram-negative Bacilli Colonizing Community-dwelling People with Spinal Cord Injury. Poster presentation ASIA/IMSOP 32nd Annual Meeting. Boston, Massachusetts, June 2006. J. Spinal Cord Medicine 29(3): 327-328, 2006.
16. Page SE, Kortte KB, Falk LD, **Gorman P**, Wegener ST. Rehabilitation Engagement Predicts Level of Handicap at 3-Month Follow-Up. Arch of PM&R 87(11):e11, November 2006.
17. **Gorman P**, Macko R, York H, Scott W, Ivey F. Comparison of Peak Open Circuit Spirometry Testing during Lokomat Exercise and Arm Cycle Ergometry in Chronic Incomplete SCI: Preliminary Results. Poster presentation ASIA 34th Annual Meeting, San Diego, California, June 2008. J. Spinal Cord Medicine, Volume 31, 2008.

30. **Gorman P**, Scott W, York H, Price-Miller N, Eyvazzadeh M, McQuaid J. The Correlation of Laboratory Based Ambulatory Measures with Community Based Step Activity in Incomplete Spinal Cord Injured Individuals. Platform Presentation, Congress on Spinal Cord Medicine and Rehabilitation, Dallas, Texas, September, 2009. J. Spinal Cord Medicine, August 2009, 32(4): 459.

31. Scott W, Price-Miller N, Eyvazzadeh M, McQuaid J, York H, **Gorman P**. Lessons Learned in Assessing Peak Metabolic Rates during Lokomat Ambulation in Incomplete Spinal Cord Injured Individuals**.** Poster presentation, Congress on Spinal Cord Medicine and Rehabilitation, Dallas, Texas, September, 2009. J. Spinal Cord Medicine, August 2009, 32(4): 483.

32. **Gorman P**, Sabin, S. Treatment of Hyperhidrosis through Afferent Block in a C4 Complete Tetraplegic Individual. Poster Presentation, Congress on Spinal Cord Medicine and Rehabilitation, Dallas, Texas, September, 2009. J. Spinal Cord Medicine, August 2009, 32(4): 486.

33. Aarabi B, **Gorman P**, Mirvis S, Shanmuganathan K. Timing of Decompression in Acute Traumatic Central Cord Syndrome. Poster Presentation, 2nd Joint Spinal Cord Meeting of the CDRF/NACTN, IPF/EMSCI and ISRT. Zurich, Switzerland, August 2010.

34. Scott W, Price-Miller N, Eyvazzadeh M, McQuaid J, York H, and **Gorman P.** Reliability And Validity Of Peak VO2 Assessments During Robotic Treadmill Training In Chronic Incomplete SCI. Medicine & Science in Sports & Exercise Jan 2011, 43(Suppl 1): 729-730. Presented at American College of Sports Medicine June 2011.

35. **Gorman P**, Scott W, York H, Theyagaraj M, Price-Miller N, McQuaid J, Eyvazzadeh M. Robotic Treadmill Training improves Peak Exercise Capacity in Chronic Incomplete Spinal Cord Injury: A Pilot Controlled Clinical Trial. Topics in Spinal Cord Injury Rehabilitation, June 2011, 16 (Supplement 1): p 40-41.

36. **Gorman P**, Scott W, York H, Theyagaraj M, Price-Miller N, McQuaid J, Eyvazzadeh M. Robotic Treadmill Training does not Improve Timed Measures of Ambulatory Function in Chronic Motor Incomplete Spinal Cord Injury: A Pilot Controlled Clinical Trial. Topics in Spinal Cord Injury Rehabilitation, June 2011, 16 (Supplement 1): p63.

37. Geigle P, Scott W, VanHiel L, Pihera A, Tansey K, **Gorman P**. Comparison of Aquatic Therapy and Robotic Treadmill Training in SCI. Platform presentation, Association of Spinal Cord Injury Professionals, Las Vegas, NV, Sept 2012..

38. Scott W, Geigle P, Chen K, VanHiel L, Perreault J, Smith B, Tansey K, **Gorman P.** Relationship among Physical Activity Scale for Individuals with Disability (PASID), Body Mass Index (BMI), and Maximum Oxygen Consumption (V02max) in Persons with Motor Incomplete Spinal Cord Injury. Platform presentation, American Spinal Injury Association, Chicago, Ill, May 2013.

39. Frye SK, Geigle PR, Perreault J, Scott W, **Gorman P**. Atypical Autonomic Dysreflexia during Robotic Assisted Body Weight Supported Treadmill Training in an Individual with Motor Incomplete Spinal Cord Injury. Poster presentation, American Spinal Injury Association, Chicago, Ill, May 2013.

40. Geigle P, **Gorman P**, Perreault J, Vanhiel L, Smith B, Tansey K, Scott W. Relationship among Physical Activity Scale for Individuals with Physical Disability (PASIPD), Body Mass Index (BMI), Lower Extremity Motor Score (LEMS) and Maximum Oxygen Consumption (V02max) in Persons with Motor Incomplete Spinal Cord Injury. Poster presentation. American Academy of PM&R Annual Meeting, Washington DC, Oct 2013.

41. Clark C, **Gorman P**. Secondary Parkinsonism caused by Carbon Monoxide Exposure: A Case Report. Poster presentation. American Academy of PM&R Annual Meeting, Washington DC, October 2013.

42. Issac L, York H, **Gorman P**. Incomplete Tetraplegia Resulting from Cervical Spinal Cord Infarction of Unknown Etiology: A Case Report. Poster presentation. American Academy of PM&R Annual Meeting, Washington DC, October 2013.

43. Geigle P, Perreault J, Ego-Oswala C, Kochunov P, **Gorman P**, Scott W. Abdominal Adiposity, Insulin Resistance and Prescribed Exercise for a Woman with Chronic Motor Incomplete Spinal Cord Injury (CMISCI): A Case Report. Presentation at American Spinal Injury Association, San Antonio, Texas, May 2014.

44. Perreault J, Geigle P, **Gorman P**, Scott W. Gastric Sleeve Surgery in a Person with Chronic Motor Incomplete Tetraplegia: Clinical Case Report. Poster Presentation at American Spinal Injury Association, San Antonio, Texas, May 2014.

45. Perreault J, Geigle P, **Gorman P**, Scott W. Gastric Sleeve Surgery in a Person with Chronic Motor Incomplete Tetraplegia: Clinical Case Report Update. Poster Presentation at Association of Spinal Cord Injury Professionals, St. Louis, MO, Sept 2014.

46. **Gorman P**, Estores I, Chen K, Jackson B, Lao L. Auricular Acupuncture for Spinal Cord Injury Related Neuropathic Pain: A Pilot Controlled Clinical Trial. ISCOS/ASIA combined meeting, Montreal, Canada, May 2015.

47. **Gorman P**, Scott W, VanHiel L, Sweatman M, Tansey K, Geigle P. Aquatic Therapy (AT) and Robotic Assisted Body Weight Supported Treadmill Training (RABWSTT) for Individuals with Chronic Motor Incomplete Spinal Cord Injury (CMISCI). ISCOS/ASIA combined meeting. Montreal, Canada, May 2015.

48. Scott W, Perreault J, Kochunov P, **Gorman P**, Geigle P. Exercise Effect on Abdominal Adiposity and Insulin Resistance in Chronic Motor Incomplete Spinal Cord Injury. American College of Sports Medicine, San Diego, CA, May 2015.

49. **Gorman P**, Scott W, VanHiel L, Tansey K, Geigle P. Cardiovascular Response to Aquatic Therapy and Robotic Assisted Body Weight Supported Locomotor Training in Individuals with Chronic Motor Incomplete Spinal Cord Injury. Association of Spinal Cord Injured Professionals, New Orleans, LA, September 2015.

50. Scott W, Smith J, James K, **Gorman P**, Geigle, P. Body Mass, Metabolic and Cardiovascular Impact of Aquatic Exercise and Nutrition Guidance for Individuals with Chronic Motor Incomplete Spinal Cord Injury. American Spinal Injury Association Meeting, Philadelphia, PA, April 2016.

51. Scott W, Ognowska-Slodownik A. **Gorman P**. Slodownik R, Geigle P. Reliability and validity of aquatic testing for individuals with Spinal Cord Injury. American Spinal Injury Association Meeting, Albuquerque, New Mexico, April 2017.

52. Scott W, Ognowska-Slodownik A, **Gorman P**, Slodownik R, Geigle P. Reliability & Validity of Aquatic Deep Water Peak VO2 Testing for Individuals With Spinal Cord Injury. World Congress on Exercise is Medicine, American College of Sports Medicine, Medicine and Science in Sports and Exercise, Volume 40:5 Supplement. Denver, CO, June 2017.

53. Hong E, Knezevic S, Asselin P, Cirnigliano CM, Konfeld S, **Gorman PH**, Forrest G, Bauman W, Spungen A. Patient-reported bladder management improvements after exoskeletal-assisted walking. J Spinal Cord Medicine 40(5): 594-595, 2017. Association of Spinal Cord Injury Professionals Meeting, Denver, CO, September 2017.

54. Knezevic S, Asselin P, Hong E, Cirnigliano C, Kornfeld S, **Gorman PH**, Forrest G, Bauman W, Spungen A. Increased serum high density lipoprotein after 36 exoskeletal-assisted walking sessions. J Spinal Cord Medicine 40(5): 613-614, 2017. Association of Spinal Cord Injury Professionals Meeting. Denver, CO September 2017.

55. Scott W, Ogonowska-Slodownik A, **Gorman P**, Slodownik R, Geigle P. Reliability and Validity Aquatic Peak VO2 for Individuals with Spinal Cord Injury. Arch. Physical Medicine Rehabilitation 98(10): e102. October 2017.

56. Scott W, Geigle P, **Gorman P**. Cardiovascular Fitness and Body Composition in Spinal Cord Injured after a 36-session Exoskeleton Program. World Congress on Exercise in Medicine Meeting, Minneapolis, MN, May 2018.

57. **Gorman P**, Scott W, Kallins M, Geigle P, Spungen A. Cardiorespiratory Fitness in Individuals with Spinal Cord Injury before and after a 36-Session Exoskeleton Gait Training Program: Preliminary Case Series. American Spinal Injury Association Meeting, Honolulu, HI, April, 2019

58. **Gorman P**, Scott W. VanHiel L, Tansey K, Sweatman WM, Geigle P. Comparison of Peak Oxygen Consumption Response to Aquatic and Robotic Therapy in Individuals with Chronic Motor Incomplete Spinal Cord Injury: A Randomized Controlled Trial. American Spinal Injury Association Meeting, Honolulu, HI. April, 2019.

59. Hong E, Asselin P, Kornfeld S, Knezevic S, Forrest G, **Gorman P**, Spungen A. Bowel management changes after exoskeletal-assisted walking program. American Spinal Injury Association Meeting, Honolulu, HI, April, 2019.

60. Spungen AM, **Gorman PH**, Forrest G, Dr. Wecht J. Results from a randomized clinical trial of 36 sessions of exoskeletal-assisted walking in persons with chronic SCI. ISCoS Meeting, Nice, France, November 2019.

61. Jahja E, Sansur C, **Gorman PH**. Spinal arachnoiditis leading to recurrent reversible myelopathy after CT myelogram and after a fall; a case report. Virtual Poster presentation, Academy of Spinal Cord Injury Professionals, Inc. 2020 Conference, September, 2020.

62. Spungen A, **Gorman PH**, Forrest GF, Asselin PK, Kornfeld S, Hong EK, Bauman WA. Indications and contraindications for exoskeletal-assisted walking in persons with spinal cord injury. Virtual Poster presentation, Academy of Spinal Cord Injury Professional, Inc. 2020 Conference, September 2020.

## 63. Forrest GF, Gorman PH, Ramanujam A, Asselin PK, Knezevic S, Wojciehowski S, Spungen AM. Exoskeleton Controller and Design Considerations: Effect on Training Response for Persons with Spinal Cord Injury. **The International Symposium on Wearable Robotics (WeRob2020), September 2020.**

64. Spungen AM, **Gorman PH**, Forrest GF, Asselin PK, Kornfeld S, Hong E, Bauman WA. Indications and contraindications for exoskeletal-assisted walking in persons with spinal cord injury. **The International Symposium on Wearable Robotics (WeRob2020), September 2020.**

65. **Gorman PH**, Forrest GF, Ausselin PK, Scott W, Kornfeld S, Hong E, Spungen AM. The Effect of Exoskeletal-Assisted Walking on Bowel and Bladder Function: Results of a Randomized Trial. **The International Symposium on Wearable Robotics (WeRob2020), September 2020.**

66. Knezevic S; Hong E, Asselin PK, Kornfeld S, **Gorman PH**, Forrest GF, Spungen AM, Wecht JM. An exoskeletal-assisted walking program in persons with chronic SCI: Effects on cardiovascular autonomic function. Platform presentation. ASCIP Educational Conference & Expo, September 2021.

**Other Brief Communications**

1. **Gorman PH.** The Trauma Behind Baltimore’s Violence. Opinion-Editorial Piece. The Baltimore Examiner. February 4, 2008, page 17.
2. **Gorman PH.** Reply to the Letter to the Editor: The Need for a Prospective Trial of Inferior Vena Cava Filter Placement After Acute Spinal Cord Injury. J. Trauma, 69 (4): 1003-1004, October 2010.
3. Shaw G. Restoring Locomotion After Spinal Cord Injury: New Study First to Combine Three Therapies. Neurology Today 12 (14): 10-11, July 19.2012. Quoted in article.
4. Yang E. Diving can be Dangerous. Interview for NBC4 news, Washington, DC, Aug 12, 2016. <http://www.nbcwashington.com/news/health/Diving-Can-Be-Dangerous_Washington-DC-390016601.html>
5. Hurley, D. First in Humans: Cortical Stimulation in Tetraplegic Patient Produces ‘Possibly Natural’ Sensations. Neurology Today 16 (23): 1-10, December 8 2016. Quoted in article.
6. **Gorman, P.** Here’s what nuclear war actually means. Letter to the Editor, The Baltimore Sun, December 28, 2016, p. 14.

<http://www.baltimoresun.com/news/opinion/readersrespond/bs-ed-nuclear-tweet-letter-20161227-story.html>

1. Radio Health Journal, Exoskeletons: Enabling Paraplegics to Walk Again. 17-04 Segment 1, available on line January 22, 2017. Interviewed for this segment. <https://radiohealthjournal.wordpress.com/2017/01/22/exoskeletons-enabling-paraplegics-to-walk-again/>
2. **Gorman, P.** Nuclear War is not Good for your Health. Op-Ed Contribution, Huffington Post, April 20, 2017. <https://www.huffingtonpost.com/entry/nuclear-war-is-not-good-for-your-health_us_58f8f840e4b00fa7de1235a0>
3. Sirius Radio interview. Bowel function in spinal cord injury. Sirius Health Radio channel 110. June 21, 2021.
4. **Gorman, P**. Tactical nuclear war should never be normalized. Reader Commentary. Baltimore Sun. May 22, 2022. <https://www.baltimoresun.com/opinion/readers-respond/bs-ed-rr-tactical-nuclear-war-should-never-be-normalized-20220522-6we7en5tzzemhnl6xd5ilqmquu-story.html>

**Published Multimedia**

1. **Gorman PH** and Hollander L. Geriatric Rehabilitation, in Ruskin, PE and Rogers, E (eds.): Multidisciplinary Education in Geriatrics and Aging (MEGA): A series of twelve computer based hypermedia learning modules. Baltimore VAMC / University of Maryland at Baltimore, 1993.

2. **Gorman PH**. Regaining Use of a Hand. Web page for Neurologic Rehabilitation Section of “YourDoctor.com”, 1999.

**Invited Speeches / Presentations**

1. "Upper Extremity Functional Electrical Stimulation in Quadriplegia." Neurology Grand Rounds, University of Maryland Medical System, February 12, 1992.

2. "Hand grasp after spinal cord injury". Guest Speaker, American Physical Therapy Association of Central Maryland Central District Meeting, May 14, 1992.

3. "Spinal Cord Injury Rehabilitation". Part of "Rehabilitation: Retrospect and Prospect," Surgery Grand Rounds, Greater Baltimore Medical Center, January 8, 1993.

4. "Spinal Cord Injury Clinic Start Up: Lessons Learned." Faculty presenter at Spinal Cord Injury Outpatient Support Clinic Team Seminar, VA Medical Center, Tampa, Florida, April 22, 1993 & May 17, 1994.

5. "Functional Electrical Stimulation for Restoration of Hand Grasp in Quadriplegia." Rehabilitation Grand Rounds, The Good Samaritan Hospital, Baltimore, Maryland, May 1993.

6. "Neurologic Rehabilitation: Current Status and Future Prospects." Guest Speaker at the Physically and Mentally Challenged Expo, Jewish Community Center, Baltimore, Maryland, October 17, 1993.

7. "Medical and Rehab Issues in the Patient with Upper Extremity Paralysis from CNS Disease." Rehabilitative and Surgical Management of Upper Extremity Paralytic Disorders: A Multidisciplinary Approach, Stouffer Tower City Plaza Hotel, Cleveland, Ohio, November 19, 1993.

8. "Rehabilitation Strategies Linked to Functional Assessment." GRECC Symposium: An Interdisciplinary Approach to Functional Assessment in the Elderly, Baltimore VAMC, April 14, 1994.

9. "Improving Hand Function in Quadriplegia: Focus on FES." Rehabilitation Grand Rounds, National Rehabilitation Hospital, Washington, D.C., August 29, 1994.

10. "Rehabilitation Needs in the Elderly." Baltimore VA Medical Center Town Forum, Baltimore VA Medical Center, November 3, 1994.

11. “Geriatric Team Approach to Assessment." Geriatric Imperative Minimester Course, University of Maryland at Baltimore, January 9, 1995.

12. “Innovative Approaches to Management of Chronic Spinal Cord Injury.” Columbia, Maryland, March 29, 1995.

13. “Spinal Cord Injury: Pathophysiology”, Faculty presenter at Spinal Cord Injury Outpatient Support Clinic Team Seminar, VA Medical Center and Hyatt Regency Hotel, Milwaukee, Wisconsin, September 16, 1996.

14. “Update on Functional Electrical Stimulation”, Rehabilitation Grand Rounds, Sinai Hospital, Baltimore, Maryland, June 9, 1997.

15. “Functional Electrical Stimulation in Spinal Cord Disorders”, Improving Spinal Cord Injury Prosthetic Care, Bally’s Hotel, Las Vegas, Nevada, July 24, 1997.

16. “Spinal Cord Injury: Epidemiology, Neuroanatomy, Pathophysiology & Classification”, Faculty presenter at Spinal Cord Injury and Disorders Primary Care Team Training, Hunter Holmes McGuire VA Medical Center, Richmond, Virginia, August 13, 1997.

17. “Spinal Cord Injury: Neuroanatomy and Pathophysiology”, Faculty presenter at Spinal Cord Injury Outpatient Support Clinic Team Seminar, VA Medical Center and Baha’i Hotel, San Diego, California, September 9, 1997.

18. “Emergency Care in Spinal Cord Injury”, Medicine Grand Rounds, University of Maryland School of Medicine, January 7, 1998.

19. “Functional Electrical Stimulation after Spinal Cord Injury”, Faculty presenter in course entitled Management of Spinal Cord Disorders – Including Multiple Sclerosis, American Academy of Neurology Annual Meeting, Minneapolis, Minnesota, May 1, 1998.

20. “Emergency Care Issues in Chronic Spinal Cord Injury”, Neurology Grand Rounds, University of Maryland School of Medicine, January 20, 1999.

21. “Topics in Functional Electrical Stimulation for Spinal Cord Injured Individuals”, Course Moderator, 2nd International Society for Neurologic Rehabilitation, Toronto, Canada, April 1999.

22. “Spinal Cord Injury”, “Restoration of Hand and Bladder Function by Electrophysiologic Techniques”, “Rehabilitation Technology”, 3 lectures given at the Black Hills Neurology Seminar, Spearfish Canyon Resort, Spearfish Canyon, South Dakota, February 2000.

23. “New Trends in Rehabilitation of Motor Function”, Neurology Grand Rounds, National Institute of Health, Bethesda, Maryland, March 2000.

24. “Advances in Motor Control Rehabilitation,” Program Co-Director, American Society of Neurorehabilitation 7th Annual Meeting, San Diego, California, April 2000.

25. “Traumatic Spinal Cord Injury”, Course Director and Presenter, American Academy of Neurology Annual Meeting, San Diego, California, May 2000.

26. “Functional Electrical Stimulation and Neuro Prostheses” and “Gizmos, Gadgets, Neuroplasticity and the Future”, Course Faculty, American Society of Neurorehabilitation Workshop, Rochester, New York, October, 2000.

27. “Functional Electrical Stimulation in Spinal Cord Injury”, Course Faculty, American Academy of Physical Medicine and Rehabilitation, San Francisco, California, November, 2000.

28. “Spinal Cord Injury – Basic Clinical Review and the Application of Functional Electrical Stimulation to these Patients”, NSF IGERT Seminar series, Arizona State University, Phoenix, Arizona, November 29, 2001.

29. “Setting up an Inpatient Rehabilitation Service”, Breakfast Seminar Course Director and Speaker, American Congress of Rehabilitation Medicine / American Society of Neurorehabilitation Joint Conference, Philadelphia, Pennsylvania, October 5, 2002.

30. “A Medication Trial In Chronic Spinal Cord Injury”, Rehabilitation Grand Rounds, Kernan Hospital, October 2002.

31. “Enhancing Nerve Conduction and Remyelination Strategies – Ion Channel Modulators”, Part of CME Dinner Satellite Symposium to the AAPM&R entitled The Future of Functional Improvement in Spinal Cord Injury, Chicago, October 2003.

32. “Neurorehabilitation: Central Nervous System Recovery and Reorganization Through Therapy”, Course Director, Dinner Symposium, American Academy of Neurology Annual Meeting, San Francisco, California, April 30, 2004.

33. “Spinal Cord Injury – Clinical Pearls and Research Horizons”, Medical Grand Rounds, Mercy Medical Center, December 8, 2004.

34. “Spinal Cord Injury – Clinical Pearls and Potential Treatments”, 4th Annual Town/Gown Neurology Update, Department of Neurology, University of Maryland Medicine, June 1, 2005.

35. “Treatment Options in Pain and Spasticity “, VA MS Center of Excellence Patient Symposium, Kernan Hospital, November 7, 2005.

36. “Clinical Trials in Spinal Cord Injury”, Seminar in Rehabilitation, Kernan Hospital, February 28, 2007.

37. “Neurorehabilitation Topics”, Department of Neurology Grand Rounds, University of Maryland School of Medicine, April 4, 2007.

38. “Spinal Cord Injury: What are the Barriers to Cure?” – Invited member of expert panel, University of Georgia, Athens, Georgia. Bedford Stem Cell Research Foundation, sponsor, March 29, 2008.

39. “Rehabilitation Medicine,” Maryland Health Today, Comcast Cable Television Public Access Station, half hour talk show, aired April 21, 2008.

40. “Transitions in Care: Bringing the Rehabilitation Mindset to the Acute Care Setting,” Special Topics in Trauma Care, Baltimore Marriott Inner Harbor, November 1, 2008.

41. “Spinal Cord Injury: A Field of Medicine in which the Review of Systems Really Matters,” Department of Neurology Grand Rounds, University of Maryland School of Medicine, December 4, 2008.

42. “Spinal Cord Injury: “A Review”, Medical Grand Rounds, Kernan Orthopaedics and Rehabilitation Hospital, Baltimore, MD, July 28, 2009.

43. “Challenges in SCI Research: A Clinical Perspective”, Invited talk at the Working 2 Walk Symposium, Chicago, Illinois, August 27, 2009.

44. “The New Rehabilitation Research Center at Kernan: Bringing Academic Investigation to the Rehabilitation Bedside”, Dinner Symposium, Baltimore, MD, October 13, 2009.

45. “Exercise and Robotic Therapy in Neurologic Rehabilitation: State of the Art”, Dinner Keynote Presentation, CMSA of the Chesapeake, Kernan Hospital, September 15, 2010.

46. “Preparing the Trauma Patient for Inpatient Rehabilitation,” Special Topics in Trauma Care, Baltimore Marriott Inner Harbor, October 22, 2010.

47. “A Randomized Controlled Trial of Lokomat Training in Chronic Motor Incomplete Spinal Cord Injury: The Fruits of Four Years of Research Teamwork at Kernan”, Kernan Hospital Medical Grand Rounds, August 23, 2011

48. “Non-Traumatic Myelopathies”, Lecture at Spinal Cord Injury Medicine Board Review Course, Association of Spinal Cord Injury Professionals Pre-Conference. Las Vegas, NV Sept 4, 2011.

49. “Update on Managing Spasticity for People with Multiple Sclerosis”, VA Multiple Sclerosis Centers of Excellence Conference Call using MSN Live Meeting, April 10, 2012.

50. “Non-Traumatic Myelopathies”, Lecture at Spinal Cord Injury Medicine Board Review Course, Association of Spinal Cord Injury Professionals Pre-Conference. Las Vegas, NV Sept 2, 2012.

51. “Spinal Cord Injury Rehabilitation” Invited speaker at International Symposium on Work Injury Prevention and Rehabilitation 2012, Shanghai Sunshine Rehabilitation Center, Songjiang District, Shanghai, China. October 2012.

52. “Halfway Around the World: Report on the Opportunity to form a Rehabilitation Partnership with Colleagues in China, Kernan Hospital Grand Rounds, Feb 5, 2013.

53. “Bowel and Bladder Dysfunction in People with Multiple Sclerosis”, VA Multiple Sclerosis Center of Excellence Video presentation from Salt Lake City, Utah, June 2013.

54. “Non-Traumatic Myelopathies”, Lecture at Spinal Cord Injury Medicine Board Review Course, Association of Spinal Cord Injury Professionals Pre-Conference. Las Vegas, NV Sept 1, 2013.

55. “SCI Jeopardy” Lecture at PVA Symposium: Aquatics and Robotics, Unique Exercise Options, A Mid-Atlantic Regional Educational Conference. UM Rehab and Orthopaedic Institute, April 5, 2014.

56. “Stroke Rehabilitation”, Medical Grand Rounds, University of Maryland St. Joseph’s Medical Center, Towson, MD, June 18, 2014

57. “Non-Traumatic Myelopathies”, Lecture at Spinal Cord Injury Medicine Board Review Course, Association of Spinal Cord Injury Professionals Pre-Conference, St. Louis, MO, Aug 31, 2014.

58. “DVT prophylaxis and IVC filters – Point Counterpoint Plenary Session”, Academy of Spinal Cord Injury Professionals Conference, St. Louis, MO, Sept 3, 2014.

59. “Lokomat Ejercicio Ensayo en Lesión de la Medula Espinal Incompleta Motor Crónico”, Rehabilitation Grand Rounds, FLENI Médico Centro Rehabilitación, Buenos Aires, Argentina, January 28, 2015.

60. “Sexuality and Fertility after Trauma: Focus on Spinal Cord Injury”, Sex & Sexuality: Crucial Conversations for The Health Care Provider, Trends in Nursing Practice Conference 2015, University of Maryland Medical Center, Baltimore, MD, Apr 29, 2015.

61. “Sexuality and Fertility after Trauma: Focus on Spinal Cord Injury”, University of Maryland Rehabilitation and Orthopaedic Institute Medical Grand Rounds, Baltimore, MD, June 23, 2015.

62. “Cardiovascular Response to Robotic Assisted Body Weight Supported Locomotor Training and Aquatic Therapy in Motor Incomplete Spinal Cord Injury”, Craig Hospital Grand Rounds, Denver, Colorado, August 31, 2015.

63. “Non-Traumatic Myelopathies”, Lecture at Spinal Cord Injury Medicine Board Review Course, Association of Spinal Cord Injury Professionals Pre-Conference, New Orleans, LA, September 6, 2015.

64. “Ensayos Clínicos En Lesión De La Médula Espinal: Un Mundo Continuamente Cambiante”, Keynote Speaker for the “Semana de Esperanza”, Rio Cuarto, Cordoba, Argentina, September 18, 2015.

65. “Cardiovascular Response to Robotic Assisted Body Weight Supported Locomotor Training and Aquatic Therapy in Motor Incomplete Spinal Cord Injury”, Department of Neurology Grand Rounds, University of Maryland School of Medicine, November 18, 2015.

66. “Introduction to Spinal Cord Injury”, introductory lecture for: “Specialized Rehabilitation Strategies for Individuals with Spinal Cord Injury/Dysfunction and other complex Neurologic Conditions: A Mid-Atlantic Regional Continuing Education Series”, University of Maryland Rehabilitation & Orthopaedic Institute, Baltimore, MD, Jan 9, 2016.

67. “Introduction to Spinal Cord Injury” and “International Standards for Neurological Classification of Spinal Cord Injury”, introductory lectures for: “Specialized Rehabilitation Strategies for Individuals with Spinal Cord Injury/Dysfunction and other complex Neurologic Conditions: A Mid-Atlantic Regional Continuing Education Series”, Meritus Health, Hagerstown MD, February 6, 2016.

68. “Cardiovascular Response to Robotic Assisted Body Weight Supported Locomotor Training and Aquatic Therapy in Motor Incomplete Spinal Cord Injury”, Rehabilitation Grand Rounds, Burke Rehabilitation Institute, White Plains, New York, June 2, 2016.

69. “Stroke Rehabilitation”, Live Television Interview and Broadcast, Maryland Public Television’s Direct Connection, Jeff Salkin host, June 13, 2016.

70.. “Non-Traumatic Myelopathies”, Lecture at Spinal Cord Injury Medicine Board Review Course, Association of Spinal Cord Injury Professionals Pre-Conference, Nashville, TN, September 4, 2016.

71. “A Randomized, Crossover Clinical Trial of Exoskeletal-assisted Walking to Improve Mobility, Bowel Function and Cardio-Metabolic Profiles in Persons with SCI” In-Progress Review Meeting. Spinal Cord Injury Research Program, CDMRP, Department of Defense, Fort Meade, MD, October 25, 2016.

72. “Clinical Trials in Spinal Cord Injury: Updates in Technology & Research” Foundations of Spinal Cord Injury Management: Creating a Solid Foundation for Rehabilitation, University of Maryland Rehabilitation Network, The Conference Center at Sheppard Pratt, Baltimore, MD, March 18, 2017.

# 73. “Cardiovascular Response to Robotic Assisted Body Weight Supported Locomotor Training and Aquatic Therapy in Motor Incomplete Spinal Cord Injury” Keynote Speaker at the 7th Annual Contemporary Trends in Spinal Cord Injury Management Symposium, Kennedy Krieger Institute, Baltimore, MD, June 12, 2017.

74. “Non-Traumatic Myelopathies”, Lecture at Spinal Cord Injury Medicine Board Review Course, Association of Spinal Cord Injury Professionals Pre-Conference, Denver, CO, September 3, 2017.

75. “Spasticity Management across Modalities and Diseases: Oral and Intrathecal Medication,” Symposium Lecture, American Society of Neurorehabilitation Meeting, Baltimore, MD, November 9, 2017.

76. “Non-Traumatic Myelopathies”, Lecture at Spinal Cord Injury Medicine Board Review Course, Association of Spinal Cord Injury Professionals Pre-Conference, New Orleans, LA, September 1, 2018.

77. “Rehabilitation Management of MS including Spasticity, Mobility and Functional Recovery”, Consumer talk at Making Connections: A multiple sclerosis patient education symposium. University of Maryland Center for MS Treatment and Research, Southern Management Corporation Campus Center, Baltimore, MD, October 26, 2019

78. “Exoskeleton Workshop: Results from a Randomized Clinical Trial of 36 sessions of Exoskeletal Assisted Walking in Persons with Chronic SCI”, panel member and lecturer, 58th Annual International Spinal Cord Society (ISCoS) Meeting, Nice, France, November 5, 2019.

79. “Randomized Clinical Trial of Exoskeletal-Assisted Walking in Persons with Chronic Spinal Cord Injury”, Neurology Grand Rounds, University of Maryland School of Medicine, May 20, 2020.

80. “Treatment of Obesity In Persons With Spinal Cord Injury: A Clinical Perspective”, lecture given in a virtual workshop entitled “Visceral Fat, Anthropometric cut-off for Central Obesity, and the Role of Trunk Muscles, and Treatment of Obesity in Adults with Spinal Cord Injury”, 59th Annual International Spinal Cord Society (ISCoS) Meeting, September 3, 2020.

81. “Spinal Cord Injury and Bowel function”, Sirius XM Doctor Radio Rehab Show interview, June 21, 2021.

82. “Emergency and Primary Care Issues in Spinal Cord Injury”, VA Maryland Health Care System Grand Rounds, Baltimore, Maryland, June 6, 2022.

83. “Exercise Training across Modalities in Spinal Cord Injury: Emphasis on Fitness”, Spinal Cord Injury / Disorder Speaker Series, Palo Alto VA Medical Center, Palo Alto, California, January 19, 2023.

84. “Why are Interventional SCI Trials so Difficult? Lessons Learned and Future Directions”, Department of Neurosurgery Grand Rounds, Stanford University, Palo Alto, California, January 20, 2023.