



EDUCATIONAL SESSIONS DETAIL DOCUMENT

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SUNDAY 25 October

INSTRUCTIONAL COURSES — FULL DAY

Group Clinical Intervention for Survivors of Brain Injury and Caregivers #3065

DATE: 25 October **TIME:** 08:00 – 17:00

FACULTY: Samantha Backhaus, PhD;
Summer Ibarra, MA;
Thomas F. Bergquist, PhD;
Kamini Krishnan, Ph.D

DIAGNOSIS: Brain Injury, Outcomes Research

FOCUS AREA: Clinical Practice

DESCRIPTION: The focus of this workshop is to provide training in how to facilitate an evidenced-based coping skills group for individuals with brain injury and their caregivers. It will specifically review the different Modules of the program, teach participants advanced cognitive-behavioral, dialectical-behavioral, and Mindfulness skills and demonstrate application of group therapy skills. While the developers of this program will be teaching this workshop, prior workshop attendees from the Mayo Brain Rehabilitation Clinic will be discussing real-life application of this program.

A Brain-Computer Interface (BCI): A Primer for Clinicians #3271

DATE: 25 October **TIME:** 08:00 – 17:00

FACULTY: Theresa M Vaughan;
Susan M Heckman;
Debra J Zeitlin, M.A./CCC, ATP;
Peggy Dellea, MS, OT/L;
Melanie Fried-Oken, Ph.D., CCC/Sp

DIAGNOSIS: Brain Injury, Stroke, Technology

FOCUS AREA: Neuroscience

DESCRIPTION: Brain-computer interfaces (BCIs) translate brain signals into new outputs that replace, restore, enhance, supplement, or improve central nervous system (CNS) function. Thus, they might be used to restore

simple communication to people severely disabled by ALS and other severe movement disorders. In this workshop we will provide clinicians and researchers with an overview of available BCI technology, and its practical uses as a tool for rehabilitation and research. Further, participants will have an opportunity to operate the BCI-24/7, and to learn how it can be used to evaluate potential users.

Lifestyle Medicine 101: The Power of Healthy Habits for You and Your Patients #3212

DATE: 25 October **TIME:** 08:00 – 17:00

FACULTY: Elizabeth Pegg Frates, MD

DIAGNOSIS: Stroke, Other

FOCUS AREA: Clinical Practice

DESCRIPTION: With research demonstrating that 80% of chronic disease is preventable through lifestyle changes, it is essential that this information is revealed and relayed to our patients as well as our colleagues and loved ones. In this evidence based course, we will review the exercise guidelines and prescription, nutrition guidelines and the healthy plate, motivational interviewing and the coach approach for counseling patients on behavior change so that your knowledge can translate into action on your part and the part of your patients. This course is designed to educate and motivate attendees with regards to lifestyle modification.

The Constant Challenge of Person-Centered Care — Are You Up to It? #2805

DATE: 25 October **TIME:** 08:00 – 17:00

FACULTY: Christina Papadimitriou, PhD;

Chris MacDonell;

Pia Kontos, PhD;

D J Brown, MA BMedSci BM BS MCEM;

Barbara O'Connell, MBA, Dip COT

DIAGNOSIS: DIAGNOSIS-Independent, International

FOCUS AREA: Clinical Practice

DESCRIPTION: Person-centered care is seen as the preferred method to healthcare service delivery. Yet, it is challenging to implement it. The objective of this course is to *identify* these challenges and *teach* techniques to facilitate person-centered practice in rehabilitation for persons with disabilities. We will use multiple instructional methods including role play, videos of clinical scenarios, group work via Brainwriting, and short power point presentations. We want participants to have a 'hands-on' experience of tools that can assist them

be(come) (more) person-centered. We will offer a toolkit to facilitate person-centered practice including resources and teachable techniques.

SUN 25 OCT

INSTRUCTIONAL COURSE — MORNING

Recharging the Rehab Team: Strategies to Improve Team Care and Patient Outcomes #3207

DATE: 25 October **TIME:** 08:00 – 12:00

FACULTY: Dale Christian Strasser, MD;

Jay Mathew Uomoto, PhD;

Barbara E. Bates, MD, MBA;

Alan B Stevens, PhD

DIAGNOSIS: Other, DIAGNOSIS-Independent, Clinical Practice

FOCUS AREA: Other

DESCRIPTION: This course teaches participants to analyze rehabilitation team functioning (TF) and to utilize these insights to develop site-specific action plans to improve team services and patient outcomes. After an introduction to the Team Effectiveness Model and Research Program, participants working in small groups will analyze the underlying TF issues of common problematic situations such as poor carry-over of therapy skills to the nursing unit, splitting of staff by a patient or family member, and a physician with suboptimal engagement with the team approach. The course builds on TF and skills training research by the FACULTY.

SUN 25 OCT

INSTRUCTIONAL COURSE — AFTERNOON

Developing, Testing, and Implementing Technologies and Video Games Into Clinical Practice #2830

DATE: 25 October **TIME:** 13:00 – 17:00

FACULTY: Rachel Proffitt, OTD, OTR/L;
John T. Morris, PhD;
Tracey Wallace, M.S., CCC-SLP;
Hillel Finestone;
James H Rimmer, PhD;
Jaclyn K. Schwartz, PhD, OTR/L;
Roger O. Smith, OT, FAOTA, RESNA Fellow

DIAGNOSIS: DIAGNOSIS-Independent, Research Methods

FOCUS AREA: Technology

DESCRIPTION: Technology is being increasingly incorporated into rehabilitation at all phases. Unfortunately, many companies and researchers have developed technologies that do not meet the needs of the rehabilitation consumer or clinic. The purpose of this instructional course is to present the work of researchers in field, highlighting the User Centered Design Processes these researchers have used in the development of their technologies. Researchers will present and demo the technology they have developed. Attendees will have a chance to participate in hand-on demos as well as a moderated discussion on translating technologies into practice.



MONDAY 26 October

INSTRUCTIONAL COURSES — FULL DAY

The Role of Health Care Professionals in Chronic Disease Prevention and Health Promotion #3232

DATE: 26 October **TIME:** 08:00 – 17:00

FACULTY: James H Rimmer, PhD;

Sharon Ann Martino, PT, PhD;

Robert Streb, PT, PhD;

Sue Ann Sisto, PT, MA, PhD, FACRM;

Maria C Milazzo, RN, MS;

Shane Phillips, PT, PhD;

Eric M Lamberg, EdD, PT, CPed; Raymond McKenna, PT, PhD; Kirsten Ness, PT, PhD

DIAGNOSIS: Other, DIAGNOSIS-Independent, Pediatric

FOCUS AREA: Clinical Practice

DESCRIPTION: Millions of Americans suffer from chronic diseases and disability including heart disease, cancer, diabetes, obesity, arthritis, and spinal cord injury. The benefits of physical activity (PA) cross all ages and disabilities; however many patients do not receive the appropriate advice on how to engage in PA and many health care professionals are unsure where to begin when faced with such patients. This 1 day translational course will present evidenced based research on how to prevent, treat and promote healthy lifestyle activities for a variety of chronic diseases / disabilities including: cardiovascular disease, hypertension, diabetes, obesity, cancer, arthritis and spinal cord injury.

Enhancing Stroke Survivors' Care Transitions and Outcomes #2842

DATE: 26 October **TIME:** 08:00 – 17:00

FACULTY: Elaine Tilka Miller, PhD, RN, CRRN, FAAN, FAHA;
Michelle Camicia, MSN, CRRN, CCM;
Pamela Roberts, PhD, OTR/L, SCFES, FAOTA, CPHQ;
Richard Riggs, M.D.;
Patricia Quigley, PhD, ARNP, CRRN, FAAN, FAANP;
Janet Prvu Bettger, ScD

DIAGNOSIS: Stroke, Other, Geriatric

FOCUS AREA: Clinical Practice

DESCRIPTION: 8-8:45 Presenter: Michelle Camicia, MSN, RN, CRRN
Facilitating Successful Transitions for Individuals and Families Following Stroke

8:45-9:30 Presenter: Pamela Roberts, PhD, OTR/L, SCFES, CPHQ, FAOTA and Richard Riggs, MD
Factors Impacting Stroke Readmissions and Strategies to Reduce Readmissions.

9:30-9:45 Break

9:45-10:30 Presenter: Patricia Quigley, PhD, MPH, ARNP, CRRN, FAAN, FAANP
Reducing Fall Risk: The Real Measure of Success for All Settings of Care

10:30-11:15 Presenter: Janet Prvu Bettger, ScD, FAHA
Measuring the effectiveness of transitional care interventions: what have we learned and where we are falling short

11:15-12:00 Moderated Panel Discussion on Care Transitions

MON 26 OCT

INSTRUCTIONAL COURSES — MORNING

Applications of Item Response Theory Modeling for Enhancing Clinical Outcomes Assessment in Medical Rehabilitation #3253

DATE: 26 October **TIME:** 08:00 – 12:00

FACULTY: Chih-Hung Chang, Ph.D.

DIAGNOSIS: DIAGNOSIS-Independent, Outcomes Research

FOCUS AREA: Research Methods

DESCRIPTION: Item response theory (IRT) holds great promise and has become increasingly popular in clinical outcomes assessment because it provides more adaptable and effective methods of assessment tool development, analysis and scoring. This workshop will provide an overview of IRT models and discuss how they can be appropriately applied to clinical outcomes assessment in physical medicine and rehabilitation research and practice. Specifically, the following topics will be discussed with empirical data: 1) fundamentals of IRT; 2) types of commonly-used IRT models; applications of IRT models (e.g., item reduction, differential item functioning and equating); and 4) new directions.

Introduction to Qualitative Research Methods for Exploring Clinical Problems and Enhancing Practice #2855

DATE: 26 October **TIME:** 08:00 – 12:00

FACULTY: Karen Besterman-Dahan;

Lisa Brenner, PhD;

Theresa T Crocker, PhD, MS, RD;

Alison M. Cogan, MA, OTR/L

DIAGNOSIS: DIAGNOSIS-Independent

FOCUS AREA: Research Methods

DESCRIPTION: Qualitative research methods have much to contribute to theoretical and applied knowledge in rehabilitation. Attendees will be introduced to qualitative research methodology, with emphases on criteria for evaluating the rigor of published qualitative studies, the role of qualitative approaches in mixed methods research, and clinical applications of qualitative methods, such as implementation science. Interactive exercises

will give attendees hands-on experience with some of the key concepts. Attendees will gain foundational knowledge about qualitative research, resources for applying it to evidence-based practice in their clinical areas, and appreciation for the many ways qualitative methods can enhance rehabilitation research and practice

MON 26 OCT

INSTRUCTIONAL COURSES — AFTERNOON

An Introduction to Individual Growth Curve Analysis #2949

DATE: 26 October **TIME:** 13:00 – 17:00

FACULTY: Christopher R. Pretz, PhD, PSTAT;
Allan John Kozlowski, PhD, B.Sc (PT)

DIAGNOSIS: DIAGNOSIS-Independent, Outcomes Research

FOCUS AREA: Research Methods

DESCRIPTION: As the maturation of longitudinal datasets in rehabilitation (e.g., the Spinal Cord Injury National Dataset and the Traumatic Brain Injury Model Systems National Dataset) continues, the need for rehabilitation researchers and clinicians to gain both a comprehensive and detailed understanding of the information contained within these datasets grows. One avenue towards satisfying this need is to gain an understanding of temporal change in outcome at the level of the individual. Such an objective is achieved through use of individual growth curve (IGC) analysis. Although this type of modeling has recently been applied in research involving both the Spinal Cord and Traumatic Brain Injury National Databases, this type of analysis is remains underutilized in the field of rehabilitation. Consequently, it is the goal of this course to offer IGC analysis training including providing familiarity with analytic software packages such as SAS, R, and HLM-7 to clinicians and researchers so that this powerful analytic technique can be incorporated into their statistical repertoires.

Translating Meaningful Physical Activity to the Home and Community #2828

DATE: 26 October **TIME:** 13:00 – 17:00

FACULTY: Pamela Rogers Bosch, PT, DPT, PhD;
Stephanie A. Combs-Miller, PT, PhD, NCS;
Kristine K. Miller, PT, PhD;
Marsha Neville, OT;
Veronica T Rowe, MS, OTR/L;
Kay Wing, PT, DPT, NCS, GCS

DIAGNOSIS: Stroke

FOCUS AREA: Clinical Practice

DESCRIPTION: Adults with stroke-related impairments present a challenge to clinicians, who struggle with selecting interventions that meet the constraints of care delivery yet enhance function. Physical activity level is low for stroke survivors, which further impedes function. Integrating stroke patients into community programs that promote physical activity and enhance function is essential. This seminar will present novel interventions that can enhance patient function through meaningful engagement in clinic, home or community settings, and will guide clinicians in continuing a patient's rehabilitation in the home and community setting. Both clinical interventions and community programs for people with stroke-induced impairments will be discussed.





TUESDAY 27 October

INSTRUCTIONAL COURSES — FULL DAY

Tailored Physical Training in Cognitive Behavioural Therapy for Chronic Back Pain: More Important Than You Think! #2810

DATE: 27 October

TIME: 08:00 – 17:00

FACULTY: Jan-Paul van Wingerden, PhD;
Wilma Tol, Therapist

DIAGNOSIS: Pain

FOCUS AREA: Clinical Practice

DESCRIPTION: Psychological aspects are predominant in rehabilitation treatment of chronic pain patients (CPP) with physical training only subordinate.

Scientific developments show motion patterns changes in CPP. These altered motor strategies can be considered compensation patterns. Increasing quantity of activity without correcting these compensations may be detrimental to intervention results.

Combining tailored physical training with CBT significantly enhances rehabilitation results.

This course describes a functional-anatomical model with allows to understand the physical compensation patterns in low back pain patients. It provides a comprehensive protocol integrating physical exercise and CBT. These basic principles will be trained in the final part of the course.

Models to Promote Best Practice in Interprofessional Care of Stroke Survivors and Their Caregivers #2834

DATE: 27 October

TIME: 08:00 – 17:00

FACULTY: Tamilyn Bakas, PhD, RN, FAHA, FAAN;
Barbara Lutz, PhD, RN, CRRN, APHN-BC, FAHA, FA;
Elaine Tilka Miller, PhD, RN, CRRN, FAAN, FAHA;
Kristen Lee Mauk, PhD, DNP, CRRN, GCNS-BC, GNP-BC,

DIAGNOSIS: Stroke

FOCUS AREA: Clinical Practice

DESCRIPTION: Stroke survivors and their caregivers must learn to cope with many changes after stroke. Since most survivors are cared for at home, family caregiving must be addressed by the entire rehabilitation team. To provide interprofessional, evidence-based care for the family affected by stroke, an examination of models to guide interventions is essential. The purpose of this instructional course is to present models that can guide interventions in the care of stroke survivors and caregivers. Models for: 1) assessing stroke caregiver readiness post-discharge, 2) phases of stroke recovery, 3) the survivor-caregiver dyad, and 4) best evidence for reducing stroke and risk factors will be presented.

Building Capacity: Formal Introduction and Implementation of Recommendations for the Management of Persons with DOC #2840

DATE: 27 October **TIME:** 08:00 – 17:00

FACULTY: Risa Nakase-Richardson, PhD;
John Whyte, MD, PhD;
Joseph Giacino, PhD, FACRM;
Douglas I Katz, MD;
Brian David Greenwald, MD;
Mark Sherer, Phd;
Ross Zafonte, DO;
Alan Weintraub, M.D; Flora Hammond, MD;
Nathan Zasler, MD;

Sunil Kothari;
David B. Arciniegas, MD

DIAGNOSIS: Brain Injury

FOCUS AREA: Clinical Practice

DESCRIPTION: The need for increasing workforce capacity in the overall management of DOC populations is increasing. Rehabilitation experts have developed minimal competency guidelines for the rehabilitation of persons with DOC yet educational opportunities are not commonly available. Therefore the purpose of this course is to provide beginner and intermediate content in the assessment, treatment, and ethical management of individual patients with severe brain injury. Content areas include: a) accurate DIAGNOSIS, b) empirically-determined prognosis, c) unique medical management, d) rehabilitation treatment content and outcome monitoring, e) caregiver education and training, f) development of long-term care plans, and g) management of common ethical issues.

How do I start, maintain or lead rehabilitation as a practicing physician, clinician or clinical researcher? #4532

DATE: 27 October **TIME:** 08:00 – 17:00

FACULTY: Sue Ann Sisto, PT, MA, PhD, FACRM;
Douglas I Katz, MD;
Ross Zafonte, DO;
Flora Hammond, MD;
Michael Jones, PhD, FACRM;
Ismari Clesson, RN;
Brad Kurowski, MD

DIAGNOSIS: Other, DIAGNOSIS-Independent

FOCUS AREA: Research Methods

DESCRIPTION: For the physician, clinician investigator or key research staff new to research, in improving their skills and understanding of the principles and practices used in the successful execution of patient-oriented research. Participants will gain insights to enhance their ability to participate in and perform quality research according to existing regulations and guidelines. The course is open to physicians, nurses, therapists, and other healthcare professionals involved in or interested in clinical research. The program will share information and create an opportunity for dialogue amongst attendees and program FACULTY. The focus of the course will be how to balance clinical and research responsibilities.

TUES 27 OCT

INSTRUCTIONAL COURSES — MORNING

Intrathecal Baclofen Therapy: Developing a Multispecialty Program and its Effectiveness in Patient Care #2956

DATE: 27 October **TIME:** 08:00 – 12:00

FACULTY: Fatma Gul, MD;
Rez Farid, MD;
Karen McCain, PT, DPT, NCS;
Patricia Krohn, NP;
Stuart Yablon, M.D.;
Louis Anthony Whitworth, M.D.;
Patricia Odom Gordon, MSN, MPH, RN, FNP-BC;
Benjamin Ngocquang Nguyen, MD;
Sandra Hall, PT;
Joe Urquidez, MD

DIAGNOSIS: Other, DIAGNOSIS-Independent

FOCUS AREA: Technology, Clinical Practice

DESCRIPTION: Intrathecal baclofen in the management of spasticity: challenges and opportunities, developing a multidisciplinary program to improve patient outcome

An Evidence-Based Approach to Assessment and Treatment of Concussion and mild TBI #2931

DATE: 27 October **TIME:** 08:00 – 12:00

FACULTY: Barry Willer, PhD;
John Leddy, M.D.;
Laura Balcer, MD, MSCE;
John Ross Rizzo, MD;
Geraldine Pagnotta, MPT, MPH;
Margaret Waskiewicz, MS, OTR/L;
Tara Denham, PT, MA;
Michael J Ellis, MD FRCSC

DIAGNOSIS: Brain Injury, Pediatric

FOCUS AREA: Clinical Practice

DESCRIPTION: Research has demonstrated that concussed individuals have significantly altered physiology. The presenters represent researchers/clinicians that have demonstrated dysautonomia, dysregulation of CBF, oculomotor and vestibular dysfunction. The primary focus will be translation of this research into practice. The presenters describe a physical examination process that represents evidence based as opposed to symptom-based evaluation. They will demonstrate the use of dynamic testing to reveal physiological, oculomotor, and vestibular dysfunction as part of accurate DIAGNOSIS. They will also describe a dynamic and evidence based approach to treatment. Presenters will describe the process and results of systematic return to sport and return to learn.

Diversity of Outcomes: From Person-Centered to International Neurorehabilitation Perspectives #3221

DATE: 27 October **TIME:** 08:00 – 12:00

FACULTY: Gordon J Horn, Ph.D.;
Frank David Lewis, Ph.D.;
James F Malec, PhD;
Paula Kersten, PhD;
Christina Papadimitriou, PhD;
Cynthia R. O'Donoghue, PhD, CCC;
Victoria Harding, PhD; Robert Russell, BHA

DIAGNOSIS: Brain Injury, Other, International

FOCUS AREA: Outcomes Research

DESCRIPTION: Rehabilitation outcomes are complex to achieve best practices. Measures such as the Glasgow Coma Scale, Glasgow Outcome Scale, and the Functional Independence Measure have been used for acute care documentation, while the Mayo Portland Adaptability Inventory-4 has been used to measure post-hospital outcomes. This presentation will review outcomes analyses, measurement selection, timing of outcome measurement, and managing data systems. Statistical approaches will address research and clinical questions. Meeting CARF standards with outcomes analyses will be discussed. Delineation of differences between quantitative and qualitative outcomes, and person-centered and group trends. Panel discussion will be held at the conclusion.

Examination and Treatment Strategies for Patients Post Cancer Treatment Involving the Head and Neck #3235

DATE: 27 October **TIME:** 08:00 – 12:00

FACULTY: Linda Gonzalez, PT, MSPT, CST;
Sarah Todd, PT, DPT;
Sharlynn Tuohy, PT, DPT, MBA

DIAGNOSIS: Cancer, Pain

FOCUS AREA: Clinical Practice

DESCRIPTION: Patients who undergo cancer treatment involving the head and the neck region have unique and specific deficits during and following treatment. The purpose of this course is to identify examination strategies and intervention techniques therapists perform on patients post treatment. This course will review the literature regarding rehabilitation specific issues following cancer treatment in this population. This program will establish an examination template and examination strategies that can be used to identify functional limitations and impairments. Lastly, the course instructors will provide a hands-on lab teaching several intervention strategies for patients whose cancer treatments involve the head and neck.

How Health Services Research can Ensure Rehabilitation Aligns With the Objectives of Healthcare Reform #2822

DATE: 27 October **TIME:** 08:00 – 12:00

FACULTY: Natalie E Leland, PhD, OTR/L, BCG, FAOTA;
Pamela Roberts, PhD, OTR/L, SCFES, FAOTA, CPHQ;
Timothy Reistetter, OTR, PhD;
Trudy Mallinson;
Nancy A. Flinn, OTR/L;

James Graham, PhD, DC;
Jason M. Beneciuk, PT, PhD, MPH;
Barbara Gage, PhD

DIAGNOSIS: Other, DIAGNOSIS-Independent

FOCUS AREA: Other

DESCRIPTION: Policy makers, payers, and healthcare administrators are relying on population-based health services research to inform policy and decisions about service delivery. To this end, the objective of this course is to eluciDATE how health services research can inform rehabilitation research, clinical innovation, quality improvement, and health policy. This panel discussion will describe the concept of population-based health services research using large databases, provide examples pertinent to rehabilitation, and draw on small group activities to facilitate the application to clinical practice.

TUES 27 OCT

INSTRUCTIONAL COURSES — AFTERNOON

Military Culture and Deployment-Related Mental Health Affecting Veterans and Their Families #2846

DATE: 27 October **TIME:** 13:00 – 17:00

FACULTY: Treven Curtis Pickett, PsyD, ABPP

DIAGNOSIS: Brain Injury, Other, Clinical Practice

FOCUS AREA: Military

DESCRIPTION: For many medical professionals understanding the unique culture of and issues relating to service members and their families remains an area of educational need. This instructional course aims to enhance awareness within the field of rehabilitation medicine of the idiosyncratic elements of military culture by exploring the unique stressors associated with OEF/ OIF/OND conflicts, as well as culturally sensitive assessment and intervention techniques to consider when working with service members and their families.

Multidisciplinary Approach for Head and Neck Cancers #2835

DATE: 27 October **TIME:** 13:00 – 17:00

FACULTY: Naghma Ahmed, PT, CDT;
Shari Frankel, MBA, PT, ATC;
Jennifer Hughes, MOT;
Charles Schreiner, MS, RN, ACNP-BC;
Sarah Soluren, MPT;
Margaret K Tiner, MS, CCC/SLP, BCS-S

DIAGNOSIS: Cancer

FOCUS AREA: Clinical Practice

DESCRIPTION: This presentation will provide an overview of the head and neck cancers with DIAGNOSIS, treatment options and surgical interventions. An emphasis will be placed on the multidisciplinary approach to the complex medical and physical deficits associated with neck dissection and radiation fibrosis. The importance of the interdisciplinary team approach and coordination of care among clinicians to address the myriad of side effects of the treatment process will be reviewed. Current research and programs at MD Anderson Cancer Center and University of Michigan will be presented to provide evidence for best practice for the rehabilitation of head and neck cancers.

Developing High-Quality Practice Guidelines #3231

DATE: 27 October **TIME:** 13:00 – 17:00

FACULTY: Ronald Thomas Seel, PhD, FACRM;
Gary Gronseth, M.D., FAAN;
Jacob Kean, PhD, CCC-SLP;
Marcel P.J.M. Dijkers, PhD

DIAGNOSIS: DIAGNOSIS-Independent, Research Methods

FOCUS AREA: Clinical Practice

DESCRIPTION: This course, co-sponsored by the American Academy of Neurology Guideline Development, Dissemination, and Implementation Committee and the ACRM Evidence and Practice Committee, presents “how to” information that will help clinicians and researchers evaluate evidence from rehabilitation studies and translate evidence into clinical practice recommendations. A primary aim is to de-mystify evidence-based medicine concepts and equip participants with the knowledge and tools needed to translate evidence (e.g., a

published article or clinical trial data) into action (e.g., choosing and implementing a specific intervention). This course will use brief didactic presentations and emphasize applying new knowledge in small work groups.

Review and Refinement of Exercise Guidelines for People With Spinal Cord Injury and Multiple Sclerosis #2969

DATE: 27 October **TIME:** 13:00 – 17:00

FACULTY: Deborah Backus, PT, PhD;
Nicholas Evans, MHS, ACSM-CES

DIAGNOSIS: Spinal Cord Injury, Neurodegenerative Disease, Clinical Practice

FOCUS AREA: Clinical Practice

DESCRIPTION: This program will provide an overview of current exercise guidelines for people with physical disability, and then a discussion of the ways in which the guidelines are inadequate for subpopulations of people with SCI and MS. The remainder of the session will focus on preliminary efforts to develop a white paper related to exercise guidelines for people with SCI or MS, and identifying research questions for future studies.

Intensive Activity-Based Rehabilitation for Pediatric Spinal Cord Injuries and Rare Neurological Disorders #3677

DATE: 27 October **TIME:** 13:00 – 17:00

FACULTY: Kaitlin MacDonald, MOT, OTR/L;
Meredith Budai; Julie Cagney, PT, DPT;
Courtney Porter

DIAGNOSIS: Spinal Cord Injury, Other, Clinical Practice

FOCUS AREA: Technology, Pediatric, Neuroplasticity

DESCRIPTION: Spinal cord injury and rare neurological disorders in pediatrics have lifelong consequences for children. The goal of therapy is to facilitate “normal” neurodevelopmental milestones. By providing input above and below the level of injury, activity based rehabilitation promotes neural recovery and reorganization while offsetting chronic complications, improving function, and facilitating achievement of milestones. Rehabilitation professionals must work as a team to adapt services and equipment to meet the needs of pediatric patients. This presentation illustrates the first steps in a lifelong activity-based rehabilitation program to facilitate ongoing development, minimize complications and help each child achieve his or her maximum potential.





CORE CONFERENCE DAY #1

WEDNESDAY 28 October

PLENARY I: The Healthcare Quality Landscape: Role of Rehabilitation Medicine #1001

DATE: 28 October **TIME:** 08:45 – 10:15

FACULTY: Helen Burstin, MD, MPH, FACP

ACRM is pleased to announce that Helen Burstin, MD, MPH, FACP will present the opening plenary at the 92nd Annual Conference.

Dr. Burstin will offer a view of healthcare quality from the national perspective, with a special emphasis on the evolving health policy landscape. The shift to value over volume and the move toward outcome measures will be highlighted. In addition, the specific role of rehabilitation medicine in the context of patient-focused episodes of care and alternative payment models will be explored.

Dr. Helen Burstin is the chief scientific officer of the National Quality Forum (NQF). She provides strategic guidance to all NQF work from the perspective of current and emerging measurement science. She is a clinical associate professor of medicine at George Washington University School of Medicine where she serves as a preceptor in internal medicine.

Palliative Care and Rehabilitation: Complimentary and Overlapping Domains #2791

DATE: 28 October **TIME:** 10:45 – 12:00

FACULTY: Brian McMichael, M.D.;
Annas Aljasseem, M.D.;
Christine Interrante, PT, DPT;
Rose Altmire, BSN, RN, CRRN

DIAGNOSIS: Cancer, Neurodegenerative Disease, Policy

FOCUS AREA: Clinical Practice

DESCRIPTION: Palliative care and rehabilitation care are complementary and often overlapping. The palliative care approach seeks to manage symptoms and improve quality of life. This mission can entail seeking to improve function. It is often explicitly applied when cure is not or cannot be sought. At the same TIME, rehabilitation clinicians seek to improve their patients' function and quality of life. This mission often entails addressing and improving barriers to rehabilitation progress, including pain. Many rehabilitation clinicians work with patients whose underlying conditions are static, cannot be cured, may be progressive, and even fatal. This symposium seeks to explore and develop the interplay between rehabilitation care and palliative care. Participants will come away with greater recognition of the palliative care they already provide. They will also be introduced to ways that palliative care indications, interventions and treatments can help improve rehabilitation outcomes. As a result, they will be better able to tailor their rehabilitation care to meet the needs of patients with life-limiting/life-threatening conditions, including the goal of decreasing caregiver burden. The evidence base will be discussed for the palliative care indications, interventions and treatments covered. The various scopes of practice and expertise among the interdisciplinary rehabilitation team will be considered.

Progress and Report of the ACRM Outcome Measurement Networking Group (OMNG) Applied Cognition Task Force (MNG ACTF) #2919

DATE: 28 October **TIME:** 10:45 – 12:00

FACULTY: Allen Heinemann, PhD;
Amy A Herrold, PhD;
Sonya Kim, PhD;
Patricia Cristine Heyn, PhD;
Carrie A. Ciro, PhD, OTR/L, FAOTA

DIAGNOSIS: Brain Injury, Other, Clinical Practice

FOCUS AREA: Outcomes Research

DESCRIPTION: There is considerable interest in cognitive outcomes as a way to measure treatment response among TBI and geriatric patients. The goals of the ACRM MNG ACTF are to identify major gaps in the cognitive

outcomes literature and generate reports on the state of research related to cognitive dysfunction populations. The TBI Workgroup is conducting a comprehensive overview of systematic reviews that evaluates the impact of pharmacological treatments on behavioral, psychological and adverse events outcomes. The Geriatric Workgroup is evaluating the effects of brain gaming (i.e. videogaming) interventions on older adults' cognitive functioning. Preliminary results from both workgroups will be presented.

Music of Neurorehabilitation: From Research to Clinical Practice in the Field of Neurologic Music Therapy #2970

DATE: 28 October

TIME: 10:45 – 12:00

FACULTY: Sarah Thompson, MM, MT-BC, CBIS;
Brian Harris, MA, MT-BC, NMT/F;
Amy Marroquin, MT-BC

DIAGNOSIS: Brain Injury, Stroke, Neuroscience

FOCUS AREA: Clinical Practice

DESCRIPTION: This course will present the evidence based practice of Neurologic Music Therapy (NMT) as it applies to sensorimotor, speech and language, and cognitive goals within a neurorehabilitation setting. The panel will consist of 3 Neurologic Music Therapists. The neuroscientific foundation of NMT interventions will be discussed as well as how they are utilized individually and in co-treatment with other disciplines. The presentation will include clinical scenarios and video, and then the panel will discuss implementation and outcomes. Interactive demonstrations will also be included.

RehabMaLL Community of Practice: Sharing Knowledge to Improve Social Participation for People Living With Disabilities #2962

DATE: 28 October **TIME:** 10:45 – 12:00

FACULTY: Dahlia Kairy, pht., Ph.D.;
Barbara Mazer, BSc (OT), Ph.D.;
Andréanne Guindon, M.A.

DIAGNOSIS: DIAGNOSIS-Independent

FOCUS AREA: Other

DESCRIPTION: Communities of practice (CoP) are “groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis” (Wenger, 1996). CoPs are increasingly used to facilitate knowledge sharing between stakeholders. The symposium will present results from a study, the RehabMaLL CoP, which includes members from research, clinical, community and governmental sectors interested in social participation of people living with disabilities. The relevance of CoPs for fostering partnerships, as well as knowledge translation and creation will be discussed.

The Use of Technology to Improve the Rehabilitation of Persons With Disabilities: How do We Know This Stuff Works? #2998

DATE: 28 October **TIME:** 10:45 – 12:00

FACULTY: Gary R Ulicny, PhD;
Achilleas A. Dorotheou; Michael Jones, PhD, FACRM;
Kent Riddle; Michael Choo, MD MBA CIME FACEP FAAEM

DIAGNOSIS: DIAGNOSIS-Independent, Clinical Practice

FOCUS AREA: Technology

DESCRIPTION: New technologies are flooding the field of physical rehabilitation. In many cases the new technologies, while they are approved, have not conducted sufficient efficacy studies to determine what their benefits are and which patients may benefit from the technology. This symposium will assemble a group of leading experts to examine an evidence-based approach for adopting a new technology in the field of rehabilitation.

Advanced Longitudinal Models in Rehabilitation: From Research to Practice #3008

DATE: 28 October **TIME:** 10:45 – 12:00

FACULTY: Christopher R. Pretz, PhD, PSTAT;
Allan John Kozlowski, PhD, B.Sc (PT);
Kristen Dams-O'Connor, PhD;
Janet P. Niemeier, PhD, ABPP (RP);
Janet P. Niemeier, PhD, ABPP (RP);
Mark Sweatman, Ph.D., M.B.A.

DIAGNOSIS: Brain Injury, DIAGNOSIS-Independent, Outcomes Research

FOCUS AREA: Research Methods

DESCRIPTION: Many important rehabilitation outcomes continue to change throughout the rehabilitation process as well as at follow up TIME points, yet common outcome assessment methods continue to examine point-in-TIME events. More recently, researchers have begun to apply advanced longitudinal methods to facilitate understanding of the progression of traumatic brain injury (TBI) and spinal cord injury (SCI) outcomes over TIME. This symposium will present and describe the application and utility of advanced longitudinal analyses in clinical and research settings. We present research that examines both group and individual level change on a number of outcomes germane to improving understanding of the entire rehabilitation process—where, when pertinent—results are presented through use of user friendly computer generated interactive tools.

Nursing Paradigm Shifts: How to Incorporate Patient Centered Care Into the Education Process? #3038

DATE: 28 October **TIME:** 10:45 – 12:00

FACULTY: Julie Gassaway, RN MS;
 Tammy Young, RN CRRN;
 Bevin Peterson, MS RN CRRN;
 Peter Anziano

DIAGNOSIS: Spinal Cord Injury, Outcomes Research

FOCUS AREA: Clinical Practice

DESCRIPTION: Patient-centered spinal cord injury (SCI) education classes move away from didactic lectures and emphasize immediate “need to know” information. ‘Textbook’ information is archived for later access and classes are ‘taught’ by peers. Nurses ensure appropriate content is infused into peer-directed problem solving discussions aimed to increase self management capabilities. We will demonstrate components of a peer-directed bladder management class. Points of engagement in the revised content/delivery classes were significantly greater ($p < .001$) compared to traditional style classes for non-cohort (same content, different participants) and for cohort (same participants, different content) analyses. Patients report gaining more information from and participating more actively in revised classes. Replication will be discussed.

Community Reintegration of Veterans With TBI: Implications for Practice #3099

DATE: 28 October **TIME:** 10:45 – 12:00

FACULTY: Christina (Tina) Dillahunt-Aspillaga, PhD, CRC, CVE, CLCP, PVE, CBIST;
 Margaret Schmitt, Ph.D.; Lisa Ottomanelli, PhD;
 Gail Powell-Cope, PhD, ARNP, FAAN

DIAGNOSIS: Brain Injury, Other

FOCUS AREA: Military

DESCRIPTION: Traumatic brain injuries (TBIs) are common among members of the Armed Forces serving in recent conflicts. TBIs frequently result in consequences that affect community reintegration (CR). This symposium includes three presentations that discuss CR outcomes in Veterans and service members with TBI. 1. Relationships among injury characteristics, demographic variables, physical functioning, pre- and post-injury mental health functioning, and social participation in Veterans and service members with head injuries: A VA TBIMS Study 2. Return to Competitive Employment within 1 Year Post-Injury: A VA TBIMS Study 3. Employment among Veterans with co-morbid SCI and TBI: Incidence and Implications for Clinical Practice

Biopsychosocial Considerations in Conceptualizing and Treating Psychiatric Comorbidities Among Patients With Chronic Pain Syndrome #3104

DATE: 28 October **TIME:** 10:45 – 12:00

FACULTY: Stacey Sandusky, PhD; Nicolle Angeli;
Rebecca Martin, DPT

DIAGNOSIS: Pain

FOCUS AREA: Clinical Practice

DESCRIPTION: The biopsychosocial model for conceptualizing and treating chronic pain syndrome and psychiatric co-morbidities in a rehabilitation setting will be discussed within this symposium. Integrated treatment addressing the shared processes among co-occurring chronic pain syndrome and psychosocial conditions is warranted for most effectively managing these complex conditions and yielding the most favorable treatment outcomes. An overview of the evidence-based chronic pain and emotion management strategies employed by clinicians to facilitate rehabilitative efforts among this challenging patient population will be provided.

Specialized Stroke Rehabilitation: A Multicultural Multicenter Study #3108

DATE: 28 October **TIME:** 10:45 – 12:00

FACULTY: Birgitta Langhammer, RPT, PhD;
Frank Becker, MD PhD;
Tamara Bushnik, PhD; Susanne Sällström, PT, MSc;
Asa Lundgren-Nilsson;
Katharina S Sunnerhagen, -, MD, PhD

DIAGNOSIS: Stroke, International

FOCUS AREA: Clinical Practice

DESCRIPTION: Sunnaas International Networks Stroke Study

Novel Community-Based Wellness Programs for People With Neurodegenerative Diseases: Three Models #3125

DATE: 28 October **TIME:** 10:45 – 12:00

FACULTY: Deborah Backus, PT, PhD;
 Madeleine Eve Hackney, PhD;
 Stephanie A. Combs-Miller, PT, PhD, NCS;
 M. Doherty Riebesell, PT, DPT, GCS;
 Tricia H Creel, PT, DPT, NCS

DIAGNOSIS: Neurodegenerative Disease, Neuroplasticity

FOCUS AREA: Clinical Practice

DESCRIPTION: This session will describe three community-based models for wellness programming for people with neurodegenerative diseases. The models include the Rehabilitation and Wellness Program at the Shepherd Center, Rock Steady Boxing in Indianapolis and a new training paradigm for fitness professionals from MDT Education Solutions. These models demonstrate the contributions of specialty trained fitness professionals providing services in collaboration with physical therapists and researchers for consultation. Research on exercise benefits will be presented along with discussion of the implications for overcoming exercise barriers. This session will incorporate videos, recommendations for implementation, and a discussion of the significance for future research.

Recent Approaches in Evidence-Based Computerized Cognitive Interventions in TBI #3187

DATE: 28 October **TIME:** 10:45 – 12:00

FACULTY: Son Preminger, PhD;
 Gerald Voelbel, PhD;
 Yelena Goldin, PhD;
 Uri Polat

DIAGNOSIS: Brain Injury, DIAGNOSIS-Independent, Neuroplasticity

FOCUS AREA: Technology, Outcomes Research

DESCRIPTION: This symposium will present studies of computerized cognitive interventions with individuals with TBI that demonstrate improvements ranging from low-level and high-level cognitive abilities. The first study will show the benefits of auditory processing training, demonstrating neuroplastic white matter changes. The second study will show the benefits of a visual processing training, resulting in improvements in basic and high-level visual functions. The third study will present the applicability and the behavioral and neural effects of internet-based executive functions training. The fourth study will present the effects of training executive functions with motion-based adaptive video games that are designed for cognitive training. A discussion of the opportunities and challenges in integrating such methods in clinical practice will close the symposium.

An Integrated Model of Goal Setting, Problem Solving, and Emotional Regulation #3229

DATE: 28 October **TIME:** 10:45 – 12:00

FACULTY: Teresa Ashman, PhD;
Bonnie Schaudé, MA, CCC-SLP

DIAGNOSIS: Brain Injury, Other, Outcomes Research

FOCUS AREA: Clinical Practice

DESCRIPTION: This symposium presents an integrative treatment approach for improving executive functioning (EF) following brain injury (BI), using empirically-based interventions: goal setting (Goal Attainment Scaling: GAS), problem-solving (SWAPS), and emotional regulation (EmReg). EF deficits are among the most disabling consequences of BI and many other neurological conditions, and it is an obstacle to social and vocational recovery. The first part will provide the theoretical and empirical basis of the interventions, and outcomes from two randomized controlled trials. The next component of the symposium will involve experiential review of GAS, SWAPS, and EmReg, including case examples.

The Role of Physical Therapy for the Individual Undergoing Head and Neck Cancer Treatments #3238

DATE: 28 October **TIME:** 10:45 – 12:00

FACULTY: Sharlynn Tuohy, PT, DPT, MBA;
Sebi Varghese, PT, DPT

DIAGNOSIS: Cancer, Clinical Practice

FOCUS AREA: Clinical Practice

DESCRIPTION: Individuals undergo aggressive treatment for head and neck cancer, including surgery, chemotherapy, and radiation therapy. These individuals require a multidisciplinary team of professionals to identify impairments and refer them to rehabilitation services in a TIMEly manner. Although scarce, there are

several studies supporting the use and safety of physical therapy interventions in this population. This session aims to review current literature surrounding physical therapy interventions for selected impairments, provide several treatment strategies using case-based examples, and discuss topics requiring further research in this population. The selected impairments will include postural dysfunction, trismus, cervicocephalic proprioception and lymphedema.

Neuroplasticity in Neurorehabilitation: A Matter of Learning, Reward, TIME and Manipulation of Barriers and Facilitators #3402

DATE: 28 October **TIME:** 10:45 – 12:00

FACULTY: Theresa Pape, Dr.Ph;
Leonardo Cohen; Gwendolyn Kartje;
Douglas Wallace, PhD

DIAGNOSIS: Other, Neuroscience

FOCUS AREA: Neuroplasticity

DESCRIPTION: This symposium will provide an overview of neuroplastic processes related to neurorehabilitation of motor and cognitive impairments. The principles of neuroplasticity will be illustrated with evidence from ongoing research developing treatments that apply principles of motor learning and reward. To further expand neurorehabilitation boundaries, pharmacological, biological and electrophysiological research currently being conducted to manipulate neuroplasticity and enhance neurorehabilitation will also be presented. The preliminary research findings will illustrate how barriers and facilitators of plasticity can be manipulated to enhance function and how differences in plasticity according to gender and TIME after injury inform development of these treatments.

Oral Presentation of Scientific Papers #1010

DATE: 28 October **TIME:** 10:45 – 12:00

FACULTY: Brad Kurowski, MD;
Christina Baker-Sparr, MSCS;
Robert G. Kowalski, MD;
Laura R Hartman, PhD, OT Reg. (Ont.)

NEUROPLASTICITY GROUP LUNCHEON: Title TBD #1024 *(separate registration required)*

DATE: 28 October **TIME:** 12:15 – 13:45

FACULTY: Randolph J Nudo, Ph.D., FAHA

DIAGNOSIS: Other

FOCUS AREA: Neuroplasticity

DESCRIPTION: The NEW Neuroplasticity Group will sponsor a luncheon on Wednesday, 28 October. Come meet the leaders of this start-up group and other like-minded colleagues focused on important cross-cutting research in neuroplasticity and its translation into clinical practice. Special guest, Randolph J. Nudo, PhD will speak at this inaugural event. Stay tuned for full details coming soon.

Dr. Nudo is professor and vice chair of Research, Department of Rehabilitation Medicine and the director of the Landon Center on Aging at the University of Kansas Medical Center. Dr. Nudo's Cortical Plasticity Laboratory focuses on understanding the brain's self-repair capacity after injury, and developing novel therapeutic approaches based on neuroscientific principles.

Rehabilitation of the Chronic Graft Versus Host Disease Patient: Clinical Management and the Need for Further Research #2793

DATE: 28 October **TIME:** 14:00 – 15:15

FACULTY: Sean Smith, MD; Jack Brian Fu, M.D.

DIAGNOSIS: Cancer, Outcomes Research

FOCUS AREA: Clinical Practice

DESCRIPTION: This symposium describes the clinical presentation and management of physical and cognitive impairments as it relates to chronic graft versus host disease, a common complication after bone marrow transplantation. A review of the literature and strategies for future research will also be discussed.

Non-Traditional Community-Based Group Exercise for Individuals With Parkinson Disease #3091

DATE: 28 October **TIME:** 14:00 – 15:15

FACULTY: Stephanie A. Combs-Miller, PT, PhD, NCS;
Madeleine Eve Hackney, PhD

DIAGNOSIS: Neurodegenerative Disease, Other, DIAGNOSIS-Independent

FOCUS AREA: Clinical Practice

DESCRIPTION: Participants will be introduced to current evidence delineating the benefits of community-based, non-traditional group exercise programs for individuals with Parkinson disease (PD). Approaches such as boxing, dance, and Tai Chi will be discussed including how they impact individuals with PD across the spectrum of disability. Social and motivational aspects of community-based, group exercise approaches will also be discussed. Practical information will be provided regarding the incorporation of said approaches into clinical practice. This session will include videos and demonstrations to illustrate the various approaches along with interactive discussion with participants about their own experiences working with individuals with PD.

Chronic Pain: Practical Tools for Patient Management #3111

DATE: 28 October **TIME:** 14:00 – 15:15

FACULTY: Sarah Wenger, PT, DPT, OCS;
Roberta Waite, EdD CNS-BC;
Joseph Rubertone, MS, MPT, Ph.D

DIAGNOSIS: Pain

FOCUS AREA: Clinical Practice

DESCRIPTION: A growing body of research has improved our understanding of chronic pain. Recent research in physical, mental and public health disciplines has given us insight into who is at risk for chronic pain and what models of care are likely to be most effective. This presentation proposes a self-management model where the patients treat themselves and healthcare providers serve as the consultants and educators that allow them to do so. This pragmatic, patient focused approach allows us to achieve tangible goals in the face of a highly variable and complex problem set.

Technology for Upper Extremity Restoration and Rehabilitation: The Tools We Have and What is Needed #3127

DATE: 28 October **TIME:** 14:00 – 15:15

FACULTY: Jennifer French, MBA;
Therese E Johnston, PT, PhD, MBA;
Mike Scheppers, MS, OTR/L;
Stacey Woods, OTR/L

DIAGNOSIS: Other, DIAGNOSIS-Independent, Clinical Practice

FOCUS AREA: Technology

DESCRIPTION: For those with neurological conditions such as stroke, multiple sclerosis, spinal cord injury and traumatic brain injury, upper extremity paralysis can limit the ability to performance activities of daily living. Technology to assist with these daily tasks or to augment the rehabilitation process has advanced for clinical availability. This session will review the rehabilitation technology tools, the research to support them, the translation of the technology and the implementation of clinical programming. A panel discussion will provide various perspectives of technology in clinical case review for a variety of neurological patients with upper extremity deficits.

Venous Thromboembolism (VTE) in Acute Inpatient Rehabilitation #3151

DATE: 28 October **TIME:** 14:00 – 15:15

FACULTY: Amy H Ng, MD, MPH; Thein H. Oo; Satinderpal Dhah, D.O.

DIAGNOSIS: Cancer, Research Methods

FOCUS AREA: Clinical Practice

DESCRIPTION: Venous thromboembolism (VTE) prophylaxis and treatment in cancer patients presents a major challenge in daily practice. Patients with cancer have a 4 to 7 fold higher incidence than non-cancer patients and even with anticoagulation treatment, remain at greater risk for recurrent VTE event than their non-cancer counterpart. Treatment with anticoagulation also poses greater side effects, including bleeding. A recent study of the rehabilitation unit at UT MD Anderson’s cancer patients will be discussed. This symposium will also provide an overview of the strategies clinicians can use when deciding on anticoagulation prevention and weigh the risks versus benefits.

Sheldon Berrol Memorial Chautauqua: A Hands-On Look at Research Ethics Concerning Patients With Disorders of Consciousness #3162

DATE: 28 October **TIME:** 14:00 – 15:30

FACULTY: Joseph Giacino, PhD, FACRM;
Lynne Brady Wagner;
Cecilia Carlowicz

DIAGNOSIS: Brain Injury, Research Methods

FOCUS AREA: Policy

DESCRIPTION: Ethical challenges are replete in clinical and research contexts for patients who can no longer speak for themselves. Case vignettes will showcase actual ethical quandaries encountered in Disorders of

Consciousness (DoC) research. Participants will be engaged in a decision-making exercise, and ethical paradigms and effective approaches to these challenges will be discussed.

Emerging Practices in Geriatric Telerehabilitation: An UpDATE on Evidence for Effectiveness and Implementation of Interventions for Older Adults #3175

DATE: 28 October **TIME:** 14:00 – 15:15

FACULTY: Emily Joan Nalder, PhD;
Helen Hoenig, MD, MPH;
Deirdre Dawson, PhD, OT Reg (Ont.);
Nancy Latham, PhD PT

DIAGNOSIS: Other, Technology

FOCUS AREA: Geriatric

DESCRIPTION: Telerehabilitation is a key health initiative. Accumulating evidence suggests that the use of internet and communication technologies in rehabilitation may be beneficial for older adults, promoting self-management of chronic conditions and aging in place. Video-conferencing, mobile apps, and virtual reality are examples of new technologies allowing individuals to consult with healthcare providers remotely, self-monitor health behaviors, and participate in rehabilitation from their own home. This presentation will review the evidence for three interventions in Canada and the USA; cognitive rehabilitation delivered through video-conferencing; mobile-technologies in rehabilitation for people with Parkinson's Disease, and telerehabilitation within the US Veterans Health Administration.

Maximizing Neuroplasticity Following Brain Injury #3198

DATE: 28 October **TIME:** 14:00 – 15:15

FACULTY: Sonja Blum; Argye Hillis, MD;
Randolph J Nudo, Ph.D., FAHA

DIAGNOSIS: Brain Injury, Stroke, Neuroscience

FOCUS AREA: Neuroplasticity

DESCRIPTION: Neuroplasticity Following Brain Injury

International Spinal Cord Injury Data Sets and Common Data Elements #3146

DATE: 28 October **TIME:** 14:00 – 15:15

FACULTY: Susan Charlifue, PhD, FACRM

DIAGNOSIS: Spinal Cord Injury, DIAGNOSIS-Independent, International

FOCUS AREA: Clinical Practice

DESCRIPTION: The symposium introduces the audience to the International Spinal Cord Injury Data Sets and the NINDS Common Data Element project related to those data sets. Attendees have the opportunity to learn about an individual data set development process and will be instructed on validation and utilization of the data sets in both clinical and research settings.

Quality Measures for Inpatient Rehabilitation Facilities #3241

DATE: 28 October **TIME:** 14:00 – 15:15

FACULTY: Anne Deutsch, RN, PhD; Allen Heinemann, PhD; Allen Heinemann, PhD; Allen Heinemann, PhD; Allen Heinemann, PhD; Allen Heinemann, PhD; Allen Heinemann, PhD; Allen Heinemann, PhD; Melvin Ingber, PhD; Laurie Coots; Poonam Pardasaney, DPT, MS, ScD

DIAGNOSIS: DIAGNOSIS-Independent, Policy

FOCUS AREA: Outcomes Research

DESCRIPTION: The Inpatient Rehabilitation Facility Quality Reporting Program began data collection in 2012. Currently, there are 7 quality measures finalized in the IRF QRP, including several IRF-acquired infections, and a post IRF discharge readmission measure. This symposium will describe the process of developing quality measures and describe: 1) analyses involved in developing the post IRF discharge readmission quality measure and 2) research examining the development of quality measures using patient-reported data.

Delivering High Quality Cancer Rehabilitation Care to Children With Hematologic/Oncologic Diagnoses: A Paradigm of Co-Management #3268

DATE: 28 October **TIME:** 14:00 – 15:15

FACULTY: Christian Niedzwecki, D.O., MS, FAAPMR, FAAP;
Mona D. Shah, MD, MS, FAAP

DIAGNOSIS: Brain Injury, Cancer, Clinical Practice

FOCUS AREA: Pediatric

DESCRIPTION: The numbers of pediatric hematology/oncology survivors continue to increase with vast improvements in life-saving therapies. In addition to the increasing efficacy of modern treatments, functional and neurocognitive deficits are common sequelae. Research on service line efficacy in cancer patients (i.e., physical therapy, occupational therapy, and neuropsychological therapy) have been reported in both the adult and pediatric populations. In particular, acute, comprehensive, integrated inpatient rehabilitation for adults with cancer has been shown to be of significant benefit. This symposium will discuss an overview of our model of acute inpatient rehabilitation in children with hematologic/oncologic diagnoses, covering management of acute acquired brain injury in the setting of 1) a posterior fossa tumor and 2) a traumatic brain injury complicated by a congenital bleeding disorder.

Hot Topics in Aphasia Rehabilitation Research #4406

DATE: 28 October **TIME:** 14:00 – 15:15

FACULTY: Leora R. Cherney, PhD;
Lisa Tabor Connor, PhD, MSOT;
Marjorie Nicholas, PhD CCC-SLP

DIAGNOSIS: Stroke

FOCUS AREA: Technology, Clinical Practice

DESCRIPTION: We highlight three issues that impact scientific inquiry and clinical practice in aphasia rehabilitation. First, there is little consensus on how much treatment is optimum. We define essential components of treatment intensity and discuss difficulties in tracking intensity for complex therapies. Second, we highlight the importance of multi-disciplinary collaborations that leverage the expertise of different professionals, and the barriers and facilitators to their implementation in aphasia rehabilitation. Third, we discuss reasons for the underrepresentation of persons with aphasia in clinical stroke studies and provide recommendations for selection and administration of tools to screen for study eligibility and to measure outcomes.

Oral Presentation of Scientific Papers #1011

DATE: 28 October **TIME:** 14:00 – 15:15

FACULTY: Feng-Hang Chang, ScD; Hannah Warner Mercier, MS, OTR/L; Jean Hsieh, PhD

The Assessment and Treatment of Real-Life Cognitive and Socio-Emotional Functioning: Past, Present, Future #2972

DATE: 28 October **TIME:** 16:15 – 17:30**FACULTY:** Dawn Neumann, PhD;
Daniel Krawczyk, Ph.D.;
Lori G. Cook, Ph.D., CCC-SLP;
Kathleen Bell, MD;
Sandi Chapman, Ph.D.**DIAGNOSIS:** Brain Injury, Stroke, Technology**FOCUS AREA:** Clinical Practice**DESCRIPTION:** This symposium will cover some of the newly emerging state-of-the-science, evidence-based assessment and treatment procedures for cognitive, social, and emotional deficits after brain injury. The wide range of technologies to be described have broad application to the brain injury population at large, with presentations spanning all severities, age groups, as well as both civilian and military persons. Specific presentations include discussion of novel virtual reality platforms to assess real-world executive and social functioning, tele-delivery cognitive training methods, computer-based emotion perception training, and telephone-based telehealth intervention for self-management and problem solving.

International Activities to Promote Implementation of Standardized Measures in Medical Rehabilitation Practice #3013

DATE: 28 October **TIME:** 16:15 – 17:30**FACULTY:** Allen Heinemann, PhD;
Coen A.M. van Bennekom, MD, PhD;
Marcel WM Post, PhD;
Jan E. Nordvik**DIAGNOSIS:** DIAGNOSIS-Independent, International**FOCUS AREA:** Outcomes Research**DESCRIPTION:** Rehabilitation clinicians do not consistently use standardized measures to monitor patient progress beyond what is mandated by payers. Thus, clinicians and facilities lack information on patient improvement, which limits opportunities to identify monitor patients' progress, develop norms, and implement quality improvement activities. This symposium explores four international approaches to promoting use of standardized measures in rehabilitation practice. Speakers from the Netherlands, Norway and the United States will describe efforts to promote adoption of standardized measures in rehabilitation practice settings.

Brain Injury in the Criminal Justice System: Outcomes for Screening and Rehabilitation #3109

DATE: 28 October **TIME:** 16:15 – 17:30**FACULTY:** Drew A Nagele, PsyD, CBIST;
MJ Schmidt, MA, CBIS**DIAGNOSIS:** Brain Injury, Other, Pediatric**FOCUS AREA:** Clinical Practice

DESCRIPTION: This presentation will describe demonstration projects carried out at a State Correctional Institution for Adults and at Juvenile Detention Centers, aimed at screening for acquired brain injury and providing NeuroResource Facilitation to connect those with brain injury to brain injury rehabilitation services available in the community. A powerpoint presentation will be given with charts and statistics about the findings of the brain injury screenings, case presentations, and description of the types of brain injury resources with which these inmates, ex-offenders, and juvenile detainees were provided.

New Discoveries Informing Care for Mobility Limited Older Adults: The Boston RISE Cohort Study #3120

DATE: 28 October **TIME:** 16:15 – 17:30**FACULTY:** Jonathan F Bean, MD MPH MS;
Marla Beauchamp, PT, PhD;
Rachel E Ward, PhD, MPH**DIAGNOSIS:** Other, Outcomes Research**FOCUS AREA:** Geriatric

DESCRIPTION: Mobility problems are prevalent among older adults and lead to subsequent disability. However, there is insufficient evidence guiding rehabilitative care. To address this, we initiated the Boston Rehabilitative Impairment Study of the Elderly, a longitudinal cohort study of 430 older primary care patients evaluating changes in mobility. Eleven neuromuscular attributes linked to mobility decline and treatable within the context of rehabilitative care were measured. We will review the study methods, demonstrate the validity and responsiveness of its primary outcome, report on baseline findings and identify a subset of attributes that are associated with poor mobility outcomes after 2 years of follow up.

Participatory Action Research to Strategize Long-Term Health and Participation Disparities With People With Disabilities #3158

DATE: 28 October **TIME:** 16:15 – 17:30

FACULTY: Joy Hammel, PhD, OTR;
Lex Frieden, M.A., LL.D.;
Janet Smith, PhD;
Katherine McDonald;
Susan Magasi, PhD;
Christina Papadimitriou, PhD;
ewis Kraus, MPH, MCP

DIAGNOSIS: Other, Clinical Practice

FOCUS AREA: Policy

DESCRIPTION: Twenty five years following the passage of the Americans with Disabilities Act (ADA), people with disabilities continue to experience persistent disparities in health care access and community living, community participation, and economic participation. However, under the Patient Protection and Affordable Care Act (PPACA), and the ADA Olmstead Decision systems change initiatives to rebalance funding toward community living and supports, we have new opportunities in rehabilitation to extend services and supports into the community. This symposium will focus on two federally funded participatory action research (PAR) projects to document and examine these participation disparities, and to design and evaluate innovative interventions to address disparities using a community-based, consumer-directed approach.

(#3189) Using Easily Available Sensors and Cloud Software Tools to Develop Functional Assessments and Home-Based Mobility Interventions

DATE: 28 October **TIME:** 16:15 – 17:30

FACULTY: Jeffrey Haddad, Ph.D.;
Jessica E Huber, Ph.D.;
George Demiris, Ph.D.;
Arjmand Samuel; Joshua J Liddy, M.S.

DIAGNOSIS: Neurodegenerative Disease, Other, Research Methods

FOCUS AREA: Clinical Practice

DESCRIPTION: Patient compliance with therapy and maintaining functional gains after therapy are major challenges. With the advent of low cost sensors, increasingly powerful computers, and smart home technology, it is becoming easier to repurpose “off the shelf” devices to provide therapeutic intervention, track patient compliance, and monitor improvements in functionality and mobility, all within the comfort of a patient’s home. In this symposium, we demonstrate how to integrate these current technologies into therapeutic practice and research. The development of home-based interventions will ultimately help mitigate issues with insurance coverage so that patients can better maintain the functional gains made during therapy.

(#3205) Exoskeleton-Assisted Walking for Persons With Neurological Conditions: Clinical Application, Health and Fitness, and Personal Mobility

DATE: 28 October **TIME:** 16:15 – 17:30

FACULTY: Allan John Kozlowski, PhD, B.Sc (PT);
Gail F. Forrest, PhD; Ann M Spungen, EdD;
Candy Tefertiller, PT, DPT, ATP, NCS;
Clare Hartigan, PT, MPT;
Nicholas Evans, MHS, ACSM-CES;
Arun Jayaraman, PT PhD

DIAGNOSIS: Brain Injury, Spinal Cord Injury

FOCUS AREA: Technology

DESCRIPTION: 1. Describe how emerging exoskeleton technologies can be integrated along the continuum of care from inpatient rehabilitation to outpatient to the community with specific emphasis on clinical application. 2. Identify potential implications for over-ground exoskeleton mobility on health and fitness outcomes. 3. Identify current and future considerations for utilizing robotic exoskeleton technologies as personal mobility devices. 4. Describe future directions for powered exoskeletons in both research and clinical settings for individuals with SCI
Brief Summary: Powered exoskeletons offer persons with lower extremity paralysis and weakness due to neurological conditions opportunities to reengage in walking as a routine activity. Researchers have begun exploring the effects of exoskeleton-assisted walking for persons with spinal cord injury, traumatic brain injury, and stroke using three exoskeleton models. This symposium will describe the walking protocols, participant characteristics, mobility results, and concurrent changes to secondary conditions such as body composition, pain, spasticity, bowel, function, and other aspects of quality of life observed in six independent research and clinical settings. The presenters will synthesize results from at least six independent studies and recommend directions for future research

Role of Physical Therapy in the Critically Ill Patient With Cancer #3209

DATE: 28 October **TIME:** 16:15 – 17:30

FACULTY: Stephen Chao, PT, DPT, CSCS

DIAGNOSIS: Cancer

FOCUS AREA: Clinical Practice

DESCRIPTION: The practice of early mobilization and physical therapy with critically ill patients in hospital ICU's is slowly growing however access to early PT is still limited, particularly in the oncology population. However, recent evidence and experience has shown that early PT in patients with cancer who are critically ill or ventilator dependent can, not only reduce co-morbid impairments, but also serve to aide in the patients recovery and

functional return. In this presentation, we will examine the barriers to Early mobilization in the cancer population and introduce physical therapy and early mobilization as a safe, cost effective adjunct to the care of the critically ill patient with cancer as well as inspire other rehabilitation departments to explore implementing early mobility programs to care for this unique population

Healthcare Utilization Following Brain Injury in Veterans: Perspectives From the VA and the Private Sector #3218

DATE: 28 October **TIME:** 16:15 – 17:30

FACULTY: Jacob Kean, PhD, CCC-SLP;
Risa Nakase-Richardson, PhD;
Lisa Brenner, PhD;
Nazanin Bahraini, PhD;
Kristen Dams-O'Connor, PhD;
Flora Hammond, MD

DIAGNOSIS: Brain Injury, DIAGNOSIS-Independent, Outcomes Research

FOCUS AREA: Military

DESCRIPTION: The purpose of this symposium, co-sponsored by the ACRM Military and Veteran Networking Group and the BI-ISIG Long-Term Issues Task Force, is to highlight three studies examining the health care utilization of Veterans post-history of injury. Veteran and Military samples will be drawn from VHA and private sector data sources. Implications for chronic management of Veterans and Service Members with TBI and will be discussed.

Home-Based Motor Rehabilitation Post-Stroke: What Can We do When Rehab is Done? #3171

DATE: 28 October **TIME:** 16:15 – 17:30

FACULTY: Steven Jax;
Andrew Packel, PT, NCS;
Christopher K Rhea, PhD;
Erin V Vasudevan, PhD

DIAGNOSIS: Stroke, Clinical Practice

FOCUS AREA: Technology, Neuroplasticity

DESCRIPTION: Mounting evidence indicates that rehabilitation can drive neuroplastic changes that improve function in individuals following stroke, and that high doses of skilled practice are required to drive this process. At the same TIME, medical insurance coverage for long-term rehabilitation is shrinking. In this symposium, we will discuss our thoughts about, and experience with, empirically investigating home-based movement therapies as an alternative to traditional clinical rehabilitation. We will focus on therapies that address the needs of people in the chronic phase of stroke recovery (i.e., >6 months post), since options for traditional rehabilitation in this population are severely limited.

Exercise of Cancer Patients Before, During, and After Hematopoietic Stem Cell Transplant #3226

DATE: 28 October **TIME:** 16:15 – 17:30

FACULTY: Theresa J Nalty, PhD, PT, NCS;
Carol Eddy

DIAGNOSIS: Cancer, Other, Clinical Practice

FOCUS AREA: Outcomes Research

DESCRIPTION: Exercise during cancer treatment is safe and feasible when prescribed and supervised by professionals with an understanding of the exercise precautions for patients with severe anemia, thrombocytopenia, neutropenia, pancytopenia, compromised immune systems, indwelling catheters, peripheral neuropathy, ataxia, and cancer related fatigue. Aerobic and resistive exercise of the hematopoietic stem cell transplant adult patient has been established to be safe with significant improvements in strength, endurance, quality of life, and cancer-related fatigue. Further research is needed on exercise progression in terms of intensity of aerobic and / or resistive training for patients with abnormal and/or fluctuating platelets, hemoglobin, hematocrit.

Evidence-Based Practice for Prevention and Treatment of Cardiovascular Disease Across the Lifespan #3247

DATE: 28 October **TIME:** 16:15 – 17:30

FACULTY: Sharon Ann Martino, PT, PhD;
Shane Phillips, PT, PhD

DIAGNOSIS: Other

FOCUS AREA: Clinical Practice

DESCRIPTION: Heart disease is the number one killer in the United States. Exercise and nutrition play vital roles in the management of patients with cardiovascular disease (CVD). Endothelium - dependent vasodilation is an

emerging biomarker that measures the relationship between exercise and cardiovascular risk in patients at risk for CVD. Impaired endothelium occurs early in the development of CVD and indeed has been found across all ages. Body composition techniques, such as DEXA are more reliable than BMI for assessing risk and effectiveness of programs. This session is designed for clinicians and researchers with interests in CVD and exercise. Topics covered will include: 1) overview of CVD and assessment of risk factors, 2) evidence based exercise interventions that impact CV function, and 3) relevant gaps in the research regarding specific exercise parameters for CV prevention across the lifespan will be expounded.

Balancing Risks and Benefits of Independent Ambulation in Cerebral Palsy Using an Adult Transition Program #3265

DATE: 28 October **TIME:** 16:15 – 17:30

FACULTY: James Jeffrey Carollo, PhD, PE;
Sruthi Pandipati Thomas, M.D., Ph.D.;
Patricia Cristine Heyn, PhD;
Cathy McMillin

DIAGNOSIS: Other, Clinical Practice

FOCUS AREA: Pediatric

DESCRIPTION: While cerebral palsy (CP) is a childhood-onset condition, rehabilitation professionals recognize it is a lifelong disease that presents challenges at every stage of development, especially as people with CP make the transition to adulthood. There is growing evidence that sustaining a functional walking pattern is associated with overall health and a reduced likelihood of developing secondary conditions often associated with “premature aging.” The purpose of this symposium is to present the risks and benefits of independent walking for the adult with CP, and describe how an adult transition program based on the coordinated care model offers the best opportunity to balance these competing concerns.

Neuroplasticity of Attention and Memory Systems #3476

DATE: 28 October **TIME:** 16:15 – 17:30

FACULTY: Sonja Blum;
Argye Hillis, MD

DIAGNOSIS: Brain Injury, Stroke, Neuroscience

FOCUS AREA: Neuroplasticity

DESCRIPTION: Neuroplasticity of Attention and Memory systems

Perceptions of Information Surrounding the Consequences of TBI: Analysis of a National Survey #3601

DATE: 28 October **TIME:** 16:15 – 17:30

FACULTY: Rosette C. Biester, Ph.D.; Chari I. Hirshson, Ph.D.; David Keith Krych, MS-CCC-SLP, CBIS

DIAGNOSIS: Brain Injury

FOCUS AREA: Clinical Practice

DESCRIPTION: The relevant literature from brain injury and related fields suggests little is known regarding the specific ways information about prognosis is perceived by patients and their families after brain injury. Improved means of communicating after injury and the development of evidence-based guidelines for delivering information and prognoses after TBI is necessary. This symposium will provide an overview of existing literature and the results of a 2012-2013 national survey on individual and significant others' perceptions of information provided them about brain injury. The results reveal an interesting gender effect, highlight the importance of communication about prognosis, and suggest areas for exploration.

Interdisciplinary Pain Rehabilitation: How the Biopsychosocial Model Results in Lower Healthcare Costs #4186

DATE: 28 October **TIME:** 16:15 – 17:30

FACULTY: Virgil Wittmer, PhD;
Christopher Sletten, Ph.D.

DIAGNOSIS: Pain, Clinical Practice

FOCUS AREA: Outcomes Research

DESCRIPTION: This symposium will review evidenced based research demonstrating and explaining the inverse relationship between healthcare expenses and clinical outcomes when using only traditional medical management for the treatment of chronic pain. Evidenced based guidelines will be presented emphasizing the importance of treating chronic pain from a biopsychosocial model, specifically interdisciplinary pain rehabilitation (IPR). A review of prior research as well as recent outcome data from insurance companies who have had patients treated at Mayo Clinic (Jacksonville) and Brooks Rehabilitation (Jacksonville) will demonstrate significant long-term reductions of healthcare expenses and improved clinical outcomes with IPR as contrasted to medical management only.

Oral Presentation of Scientific Papers #1012

DATE: 28 October **TIME:** 16:15 – 17:30

FACULTY: Tatyana Mollayeva, MD, PhD (cand); Shirley Shih, M.D.; Katarzyna Hojan, M.D, Ph.D; Susan Fasoli, ScD
OTR/L





CORE CONFERENCE DAY #2

Thursday 29 October

PLENARY II: John Stanley Coulter Lecturer Award: From Neuroprosthetics to Wheelchairs: The Good, the Bad, and the Ugly of Assistive Technology #1002

DATE: 29 October **TIME:** 08:15 – 09:15

FACULTY: Michael Boninger, M.D.

Assistive technologies offer great potential for increasing independence and participation for individuals with disability. This potential has been achieved by devices such as the wheelchair, but wheelchairs frequently break and can cause secondary injuries. Cutting-edge technologies such as neuroprosthetics hold amazing promise, but have not yet led to a clinically meaningful impact on a significant number of patients. In addition, the promise of cutting-edge technologies has the potential to negatively impact care, recovery, and research. The latest work in these assistive technologies, their importance, promise, and the complex impact they have on the rehabilitation field and our patients will be discussed.

Michael Boninger, MD is the director of the UPMC Rehabilitation Institute and author of five U.S. patents. He is renowned for his extensive research on spinal cord injury, assistive technology, and overuse injuries, particularly those associated with manual wheelchair propulsion.

Presentation of the prestigious John Stanley Coulter Award will take place during the Henry B. Betts Awards Gala on Thursday evening.

New Frontiers for Neurodegenerative Rehabilitation: Maintaining Brain Health and Restoration #2988

DATE: 29 October **TIME:** 09:30 – 10:45

FACULTY: Patricia Cristine Heyn, PhD;
Deborah Backus, PT, PhD;
Sandi Chapman, Ph.D.

DIAGNOSIS: Neurodegenerative Disease, Other, Geriatric

FOCUS AREA: Neuroscience

DESCRIPTION: Growing efforts are searching ways to harness residual neuroplasticity in healthy older adults to counter diminishing cognitive capacity. Indeed, 87% of the adult population is predicted not to develop Alzheimer's disease (AD); nonetheless many healthy adults are showing relentless and insidious loss of cognitive capacity and degradation of brain function. Cognitive training and aerobic exercise training have been widely used to improve cognitive function in individuals with memory loss. Keeping the brain resilient as we age could lessen the effects of brain insults that may occur due to neurodegenerative processes. To DATE, validATED and safe metrics to measure improvements in neural health are nonexistent yet critical. These findings are extremely important to adults with cognitive disability as they are at higher risk of developing age-related disorders, such as memory loss, dementia and AD. This presentation will discuss the evidence about two cognitive behavioral interventions on cognitive and brain function as well as modifiable risk factors for cognitive decline and how this evidence relates to individuals with cognitive disabilities. It will also discuss the challenges to recognizing memory loss in older individuals with and without cognitive disability.

Motor Priming to Improve Functional Outcomes #2995

DATE: 29 October **TIME:** 09:30 – 10:45

FACULTY: Sangeetha Madhavan, PT PhD;
Mary Ellen Stoykov, PhD, OTR/L;
Edelle (Edee) C. Field-Fote, PhD, PT, FAPTA

DIAGNOSIS: Other, DIAGNOSIS-Independent, Neuroplasticity

FOCUS AREA: Neuroscience

DESCRIPTION: Rehabilitation researchers are exploring neural priming as a method to facilitate motor learning and, thereby improve the outcomes of functional training. In this symposium, we discuss three priming paradigms that are supported by the greatest amount of evidence, including (i) brain stimulation-based priming

(ii) movement-based priming, and (iii) sensory priming. We present data from studies that indicate that motor priming techniques may be promising adjuvants to rehabilitation.

Assessment of Military Multitasking Performance Multitask Components: Informing Return-to-Duty After Concussion #3025

DATE: 29 October **TIME:** 09:30 – 10:45

FACULTY: Margaret (Maggie) M. Weightman, PT, Ph.D.;
Mary Vining Radomski, PhD, OTR/L;
Matthew Scherer, PT, PhD;
Karen McCulloch, PT, PhD, NCS

DIAGNOSIS: Brain Injury, Research Methods

FOCUS AREA: Military

DESCRIPTION: Concussed Service Members often demonstrate physical and psychological conditions that interfere with peak performance of warrior tasks. Subtle symptoms associated with mTBI can compromise rapid, safe return-to-duty, but are difficult to assess. In this presentation, we will summarize the validation findings to DATE for the Assessment of Military Multitasking Performance, a performance-based assessment that includes 3 multitasks to help inform duty-readiness decisions for Service members after concussion/mTBI. Implications of these research findings on test development for civilian practice will be outlined.

Traumatic Brain Injury in the Young Child: Current Approaches to Rehabilitation #3098

DATE: 29 October **TIME:** 09:30 – 10:45

FACULTY: Angela Ciccia, Ph.D.;
Julie Haarbauer-Krupa, PhD;
Beth Slomine;
Linda Ewing-Cobbs, PhD;
Heather Keenan, MDCM, PhD

DIAGNOSIS: Brain Injury, Other, Clinical Practice

FOCUS AREA: Pediatric

DESCRIPTION: Brain injury in the very young child (0-5 years of age) is unique in its implications for recovery, rehabilitation, and ongoing development. The aim of this symposium is to highlight the intersection of these constructs with data from recent research projects and to provide a forum for discussion of the implications of this work in the lives of children with TBI and their families.

Primary Payer Sources and Rehabilitation Outcomes of Patients Discharged From U.S. Inpatient Rehabilitation Facilities, 2011-2013 #3117

DATE: 29 October **TIME:** 09:30 – 10:45

FACULTY: Hua Wang;
Michelle Camicia, MSN, CRRN, CCM;
Jacqueline Mix, MPH;
Margaret Anne DiVita, MS, PHD

DIAGNOSIS: Brain Injury, Stroke

FOCUS AREA: Outcomes Research

DESCRIPTION: Rehabilitation therapies and treatment availability may be impacted by the types of insurance payer. This study examines post-acute rehabilitation outcomes by primary payer for patients discharged from U.S. inpatient rehabilitation facilities between 2011 and 2013 with stroke, brain dysfunction, neurologic conditions, or spinal cord injury. Current healthcare policy issues as well as clinical implications will also be discussed.

Accessibility in Health Care for People With Disabilities #3163

DATE: 29 October **TIME:** 09:30 – 10:45

FACULTY: Lex Frieden, M.A., LL.D.;
Vinh Nguyen, J.D., M.B.A.;
Carl Elliott Josehart;
Matthew Davis, M.D.;
Matthew Davis, M.D.;
Edward Elms, M.D.

DIAGNOSIS: Spinal Cord Injury, DIAGNOSIS-Independent, Technology

FOCUS AREA: Policy

DESCRIPTION: Approximately 57 million people in the United States have disabling impairments that impact their overall health needs. As they age, people with disabilities experience many of the same chronic conditions as others do in their later years. Rehabilitation providers are acutely familiar with the physical barriers that confront their patients, but people with disabilities continue to face barriers in the general health care system. Multiple studies and federal reports have noted health care disparities for the disability population and that common misconceptions contribute to disparities in the services they receive. The Americans with Disabilities Act (ADA) and Rehabilitation Act prohibit discrimination on the basis of disability for health care providers and requires them to make reasonable modifications to their policies and practices when necessary to ensure full and equal access to a patient with a disability. This panel discussion will discuss the health care disparities between the disability and general population, the common issues and barriers that contribute to these disparities, and the legal obligations that health care providers must comply with to serve people with disabilities.

Evidence-Based Medical and Cognitive Management During Inpatient Rehabilitation in Persons With Brain Tumors #3156

DATE: 29 October **TIME:** 09:30 – 10:45

FACULTY: Michael O'Dell, MD;
Faith Gunning-Dixon, Ph.D.

DIAGNOSIS: Brain Injury, Cancer

FOCUS AREA: Clinical Practice

DESCRIPTION: Among persons with brain tumors, the side-effects of primary treatments and a number of prophylactic protocols as well as underlying cognition, can potentially impact the mobilization process. This presentation will take an evidence-based approach outlining the most current information regarding the medical and cognitive management of persons with brain tumors during inpatient rehabilitation

Palliative Medicine Symptom Management for Rehabilitation Practitioners #3166

DATE: 29 October **TIME:** 09:30 – 10:45

FACULTY: Sree Battu, M.D.;
Earl L Smith, M.D., Ph.D.;
Aziza Azadali Kamani, M.D.;
Rebecca T. Armendariz, M.D.

DIAGNOSIS: Cancer, Pain

FOCUS AREA: Clinical Practice

DESCRIPTION: Cancer patients experience functional changes throughout the cancer continuum (DIAGNOSIS, treatment, survivorship, end of life). The goal of this symposium is to introduce the General Rehabilitation Practitioner to one aspect of care provided by Palliative Medicine Practitioners: symptom assessment and management. Being able to assess and treat symptoms related to cancer treatments or disease progression will aid the Rehabilitation Practitioner in supporting the cancer patient's rehabilitation process in post-acute rehabilitation facilities. Palliative Medicine symptoms to be addressed include nausea, dyspnea, anxiety, depression, delirium, and cancer related pain. We will also discuss assessment of opiate induced neurotoxicity and methods to treat this condition.

Can Measures of Team Functioning (TF) be Useful in Quality and Quality Improvement? #3201

DATE: 29 October

TIME: 09:30 – 10:45

FACULTY: Dale Christian Strasser, MD;
Andrea Backscheider Burrige, PhD;
Jay Mathew Uomoto, PhD;
Alan B Stevens, PhD;
Linda J Resnik, PT, PhD

DIAGNOSIS: Stroke, DIAGNOSIS-Independent, Clinical Practice

FOCUS AREA: Outcomes Research

DESCRIPTION: The lack of rehabilitation specific measures hampers QI in the field. In this symposium we examine team functioning (TF) measures as process indicators, building on our experience of modeling and studying TF in stroke rehabilitation. A recent exploratory analysis of data from a national clinical trial found that TF measures tracked key patient outcomes consistent with a theoretical model of team effectiveness. These findings will be critiqued followed by an interactive discussion on the potential utility of TF measures and future research.

(#3214) Sexuality and Health in Women With Spinal Cord Injury

DATE: 29 October

TIME: 09:30 – 10:45

FACULTY: Heather Beth Taylor, Ph.D.;
Claire Kalpakjian, PhD, MS;
Margaret A. Nosek, PhD;
Susan Robinson-Whelen, Ph.D.

DIAGNOSIS: Spinal Cord Injury, Other

FOCUS AREA: Outcomes Research

DESCRIPTION: Women's health after SCI is an important research and clinical area. The presentation will highlight the mission and goals of the Women's Health Task Force by sharing the results of a scoping review focusing on the extant literature on sexual health and function,, characterized by constructs such as arousal, orgasm, intercourse, and sexual relationships. In addition, we will share an education project called "The Pelvic Health Initiative for Women with Physical Disabilities" to create educational resources on pelvic health for women with SCI, and other physical disabilities.

Empathy in Neurorehabilitation: From Cortex to Caregiver #3227

DATE: 29 October **TIME:** 09:30 – 10:45

FACULTY: Nathan Zasler, MD;
Mark Charles Bender, Ph.D.;
Carrie Hartwell, PhD, MA, MSW, LCSW

DIAGNOSIS: Brain Injury

FOCUS AREA: Clinical Practice

DESCRIPTION: "Empathy in neurorehabilitation: from cortex to caregiver" will provide attendees with an overview of the importance of empathy in the context of the neurorehabilitation of persons with brain impairment. The neural correlates of empathy will be reviewed as well as general conceptual models of empathy. Methodologies for empathy assessment will be reviewed from a psychological/neuropsychological perspective and attendees will be provided insights on how such testing can be used in the context of guiding neurorehabilitation efforts including empathy training. Education will also be provided regarding approaches to educate professionals to improve their empathy skills, as well as, provide practical guidelines for implementing empathic approaches to patient care in the neurorehabilitation setting

Issues in Global Rehabilitation in Low-to-Middle Income Countries #3258

DATE: 29 October **TIME:** 09:30 – 10:45

FACULTY: Michelle Jillian Johnson, PhD;
Andrew J Haig, M.D.;
Asare Christian, MD;
Sean Smith, MD;
Karla Bustamante-Valles, PhD

DIAGNOSIS: Stroke, DIAGNOSIS-Independent, Technology

FOCUS AREA: International

DESCRIPTION: Non-communicable diseases, especially cardiovascular diseases, are the leading cause of death and disability in the world. An increase in their prevalence often leads to higher incidences of diabetes and stroke and consequently, an increase in the number of persons living with permanent disability due to impairment or amputation. Our learning objectives are to increase awareness on the growing disparities between rehabilitation infrastructure and deployment in developed and developing world and provide a forum for discussing ideas of how rehabilitation capacity can be created and how technology can play a more significant role in bridging the gap.

Comorbidities in Acquired Brain Injury by Sex: Implications for Rehabilitation Outcomes #3254

DATE: 29 October **TIME:** 09:30 – 10:45

FACULTY: Kenneth Ottenbacher, PhD;
Vincy Chan, MPH, PhD CandiDATE;
Tatyana Mollayeva, MD, PhD (cand);
Angela Colantonio, PhD, FACRM;
David Stock

DIAGNOSIS: Brain Injury, Other, Policy

FOCUS AREA: Outcomes Research

DESCRIPTION: Acquired brain injury (ABI) is more common than breast cancer, HIV/AIDS, and multiple sclerosis combined. There is currently a paucity of research identifying comorbidities in the ABI population by sex and how they influence rehabilitation outcomes such as length of stay, functional outcome, and discharge destinations. This symposium will present findings from population-based studies on ABI that addresses these research gaps, followed by a focus on sleep disorder as a comorbid condition. Opportunities for rehabilitation

research using big data will be identified. This symposium will conclude with a discussion on the challenges in incorporating sex and comorbidities in big data research.

Delivering High-Quality Cancer Rehabilitation Care to Children With Hematologic/Oncologic Diagnoses: Bridging Services #3270

DATE: 29 October **TIME:** 09:30 – 10:45

FACULTY: Christian Niedzwecki, D.O., MS, FAAPMR, FAAP;
Pamela Lathem, OTR, BS, CBIS;
Joy Elaine Hesselgrave, MSN, RN, CPON;
Tammy Stanford, RN, BSN

DIAGNOSIS: Cancer, DIAGNOSIS-Independent, Clinical Practice

FOCUS AREA: Pediatric

DESCRIPTION: The numbers of pediatric hematology/oncology survivors continue to increase with vast improvements in life-saving therapies. In addition to the increasing efficacy of modern treatments, functional and neurocognitive deficits are common sequelae. Research on service line efficacy in cancer patients have been reported in both the adult and pediatric populations. In particular, acute, comprehensive, integrated inpatient rehabilitation for adults with cancer has been shown to be of significant benefit. This symposia will discuss and address multiple communication opportunities on an acute pediatric inpatient rehabilitation unit to deliver high quality care to children with hematologic/oncologic diagnoses. Areas to be explored are administrative challenges, medical management, and cultural adjustments.

Client-Centeredness and Interprofessional Teamwork in Inpatient Rehabilitation #3284

DATE: 29 October **TIME:** 09:30 – 10:45

FACULTY: Jeffrey Wertheimer, Ph.D.;
Christina Papadimitriou, PhD;
Pamela Roberts, PhD, OTR/L, SCFES, FAOTA, CPHQ

DIAGNOSIS: DIAGNOSIS-Independent

FOCUS AREA: Clinical Practice

DESCRIPTION: Client-centeredness and inter-professional teamwork are important paradigms in rehabilitation. We will define them and discuss how they are related based on empirical data. Facilitators and barriers to related to inter-professional teamwork will be reviewed. Research from a prospective study of team conference decision making related to patient-related outcomes (i.e., length of stay) on an inpatient rehabilitation unit will be presented.

VA Amputation System of Care: A System Model for Interdisciplinary Amputation Rehabilitation #3841

DATE: 29 October **TIME:** 09:30 – 10:45

FACULTY: Joseph Webster, M.D.;
Cindy E. Poorman, MSPT;
Joseph Miller, PhD CP

DIAGNOSIS: Other, Technology

FOCUS AREA: Military

DESCRIPTION: In 2008, the Department of Veterans Affairs (VA) began implementation of the Amputation System of Care (ASoC) in order to enhance the quality and consistency of care provided to Veterans with limb loss. This presentation will provide participants with a greater understanding of the ASoC as an integrated healthcare delivery system that is designed to provide the latest practices in medical care, prosthetic technology, and rehabilitation management through graded levels of clinical expertise and accessibility to care. Participants will also gain an appreciation for the structured, interdisciplinary team approach and a network of clinically-trained care coordinators that have been essential to the program success. The strategies, including the development of clinical practice guidelines, used to incorporate the most advanced prosthetic technology and rehabilitation techniques into clinical practice will also be covered during the presentation. Lastly, participants will understand the key the program outcomes of the VA Amputation System of Care (ASoC) and the VA Orthotic and Prosthetic Service.

(#1013) Oral Presentation of Scientific Papers

DATE: 29 October **TIME:** 09:30 – 10:45

FACULTY: Dawn Neumann, PhD;
Flora Hammond, MD;

Barbra Zupan;
Shannon B Juengst, CRC

Enhancing Telerehabilitation Through Innovative Uses of Low-Cost Consumer Technologies #2833

DATE: 29 October **TIME:** 11:00 – 12:15

FACULTY: Brodie M Sakakibara, PhD; Edward Giesbrecht, OT(C); Bitu Imam, BSc; Emily Ross

DIAGNOSIS: DIAGNOSIS-Independent, Geriatric

FOCUS AREA: Clinical Practice

DESCRIPTION: Telerehabilitation, where rehabilitation is provided from a distance using communication technologies, is a potential solution to the increasing demands for cost-effective yet high quality rehabilitation services. Despite underutilization, telerehabilitation has demonstrated effective improvements in physical, functional, and quality of life outcomes among individuals with disabilities. The emergence of low-cost consumer technologies offers the potential to expand and innovate telerehabilitation, highlighting the need for clinical research. This symposium will bring interested stakeholders together to learn about and discuss: 1) Emerging applications of low-cost consumer technologies in telerehabilitation, including: computer tablets; commercial off-the-shelf gaming systems; and telephone and texting; and 2) Strategies for establishing and advancing telerehabilitation within current healthcare systems

FacingDisability.com: State-of-the-Art Rehabilitation Information and Support in an Online World #2845

DATE: 29 October **TIME:** 11:00 – 12:15

FACULTY: Thea K Flaum;
Sara J Klaas, MSW, C-ASWCM

DIAGNOSIS: Spinal Cord Injury

FOCUS AREA: Other

DESCRIPTION: FacingDisability.com is a new high-tech, low-cost intervention, a first-of-its-kind online resource that is designed to be a model. It is a cutting-edge Internet -based project that was specifically created for families dealing with spinal cord injuries, but it has blazed a successful path that others are now able to follow. The website brings users face-to-face with the life experiences of others. It contains more than 1,500 high-

quality HD videos of family members answering real-life questions about how they cope with a spinal injury, as well as interviews with top SCI experts on important subjects. It averages 2,500 unique visitors a week.

Implementation of CogSMART in a Military Treatment Facility: Successful Modification and Lessons Learned #2859

DATE: 29 October **TIME:** 11:00 – 12:15

FACULTY: Jennifer Lundmark;

Inbal Eshel, M.A.

DIAGNOSIS: Brain Injury, Other, Military

FOCUS AREA: Technology, Clinical Practice

DESCRIPTION: This presentation will describe the successful implementation of Cognitive Symptom Management and Rehabilitation Therapy (CogSMART), a cognitive rehabilitation group, at Walter Reed National Military Medical Center for active duty service members with traumatic brain injury. The symposia will provide an overview of how the protocol was modified to meet the needs of our patient population and steps taken, at the patient level, to assist with individualizing care. Treatment outcomes regarding cognitive and emotional functioning will be reviewed. Lessons learned from the implementation of this intervention might inform recommendations for individualizing cognitive rehabilitation groups at a facility and patient level.

Cancer Rehabilitation: Translating the Latest Science Into Clinical Care #2930

DATE: 29 October **TIME:** 11:00 – 12:15

FACULTY: Julie K Silver, MD;

Nicole L Stout, DPT;

Vishwa Raj, MD

DIAGNOSIS: Cancer, Pain, Outcomes Research

FOCUS AREA: Clinical Practice

DESCRIPTION: This symposium focuses on the latest advances in research and how they can best be incorporated into clinical care. Cancer and its various treatments introduce a host of implications that negatively impact function. From the point of DIAGNOSIS throughout active treatment and for the duration of a cancer survivor's lifeTIME there are short and long term risks for functional morbidity. Cancer rehabilitation is an

important part of the oncology care continuum. Research is evolving and should be implemented into best practices clinical care. Similar to other rehabilitation models, cancer rehabilitation should involve an interdisciplinary team including rehabilitation professionals aligned with standard of care treatment. Rehabilitation interventions that are typically part of the care continuum for other serious illnesses and injuries--such as stroke, spinal cord injury and traumatic brain injury--are often poorly implemented or entirely missing from cancer care as is consideration for the multifaceted needs of the patient including; functional, psychosocial, cognitive and physical issues. This presentation will present the current state of cancer rehabilitation along with recent scientific evidence to support interventions throughout the continuum of care. Additionally, emerging issues in cancer rehabilitation care, including; research needs, national and international guidelines and recommendations will be discussed.

Better Rehabilitation Through Systematic Treatment Specification: Progress and Aims of the Rehabilitation Treatment Taxonomy Project #2952

DATE: 29 October **TIME:** 11:00 – 12:15

FACULTY: Tessa Hart, PhD;
Marcel P.J.M. Dijkers, PhD;
John Whyte, MD, PhD;
Christine Chen, ScD, OTR/L;
Mary Ferraro, PhD, OTR/L;
Andrew Packel, PT, NCS;
Jarrad Van Stan, MA, CCC-SLP, BCS-S;
Jeanne M. Zanca, PhD, MPT

DIAGNOSIS: DIAGNOSIS-Independent, Clinical Practice

FOCUS AREA: Research Methods

DESCRIPTION: Rehabilitation has many ways of measuring patient characteristics and other inputs to the treatment process, and many measures of outcomes, but remains in need of a system for specifying and measuring the treatments themselves. Only with such a system can we conduct the comparative effectiveness research and knowledge translation that will advance the field. In this session we present findings to DATE and future directions of a multi-disciplinary team working to develop a Rehabilitation Treatment Taxonomy, which now includes a manualized method for specifying the proximal targets, active ingredients, and mechanisms of action for all rehabilitation interventions.

Improving Return to Work and School Outcomes After Acquired Brain Injury Through Resource Facilitation: Translating Evidence Into Practice #3001

DATE: 29 October **TIME:** 11:00 – 12:15

FACULTY: Devan Parrott;
Lance Trexler, Ph.D., FACRM;
Summer Ibarra, MA

DIAGNOSIS: Brain Injury

FOCUS AREA: Outcomes Research

DESCRIPTION: This symposium will provide the results of three different studies on improving return to work and school following acquired brain injury through Resource Facilitation. It will also address how the research was translated into clinical practice and State-wide policy.

Knowledge Translation Strategies for Engaging Stakeholders: Lessons Learned From the MSKTC #3007

DATE: 29 October **TIME:** 11:00 – 12:15

FACULTY: Xinsheng Cindy Cai, PhD;
Claire Kalpakjian, PhD, MS;
Dahlia M. Shaewitz, M.A.;
Cynthia Overton, Ph.D.

DIAGNOSIS: Brain Injury, Spinal Cord Injury, Policy

FOCUS AREA: Clinical Practice

DESCRIPTION: Funded by the National Institute on Disability and Rehabilitation Research (NIDRR), the Model Systems Program promotes innovative projects for the delivery, demonstration, and evaluation of comprehensive medical, vocational, and other rehabilitation services in the areas of spinal cord injury, traumatic brain injury, and burn injury. This symposium will highlight how the Model Systems Knowledge Translation Center and Model Systems researchers engage stakeholders through the knowledge translation process, focusing on developing and testing consumer products; designing and managing a large, scoping review; working with policy makers; and disseminating consumer products to the field.

The Child With Severe TBI: Assessment Strategies and Recovery Trajectories #3020

DATE: 29 October **TIME:** 11:00 – 12:15

FACULTY: Stacy Suskauer, MD;
Beth Slomine;
Janet P. Niemeier, PhD, ABPP (RP)

DIAGNOSIS: Brain Injury, Clinical Practice

FOCUS AREA: Pediatric

DESCRIPTION: There is growing evidence regarding outcome after severe TBI in childhood which can be used to inform clinical care. This symposium will showcase data from two institutions, formulating an evidence base for early assessment with relevance for later outcomes. Talks will address the effect of cognitive challenges on dual task performance acutely after injury, the utility of injury severity markers for predicting recovery over the first year post-injury, and early markers of functional recovery in children with the lowest level of function after TBI and longer-term trajectories of recovery in this population.

Growing Resiliency and CouragE (GRACE) With Cancer #3119

DATE: 29 October **TIME:** 11:00 – 12:15

FACULTY: Arash Asher, M.D.;
Jeffrey Wertheimer, Ph.D.;
Ann Gottuso, PhD;
Bronwen Jones, B.Mus.;
Marvin Delgado Guay

DIAGNOSIS: Cancer

FOCUS AREA: Clinical Practice

DESCRIPTION: Patients with advanced cancer often face demoralization and profound existential and spiritual challenges. There is a need for empirical interventions that focus on the existential needs of patients with advanced cancer. GRACE (Growing Resiliency And CouragE with cancer) was developed to bring together a variety of experiences and strategies from an interprofessional perspective to mitigate suffering among patients with advanced cancer diagnoses.

Community Integration for Individuals With Brain Injury: A Cross-Cultural Review of Service Delivery Models #3139

DATE: 29 October **TIME:** 11:00 – 12:15

FACULTY: Kristine T. Kingsley, Psy.D., ABPP;
Jonathan Armstrong;
Barbara A O Connell, MBA DipCOT;
Eli Vakil, PhD

DIAGNOSIS: Brain Injury, Stroke, Clinical Practice

FOCUS AREA: International

DESCRIPTION: Community Integration (CI) is a common goal of rehabilitation objectives. It has been tied to quality assurance in the community and improved quality of life. The symposium will provide a brief overview of CI in general as it applies to a cohort of individuals with acquired brain injury. Community services, supports, integration and inclusion are changing in countries such as Ireland and New Zealand. Issues of cultural competency and sensitivity are discussed. A discussant will then briefly summarize the concepts presented and lead a conversational question and answer session.

Balance and Gait Impairment in Multiple Sclerosis: Current Evidence of Causes and Treatment #3202

DATE: 29 October **TIME:** 11:00 – 12:15

FACULTY: Jeffrey R Hebert, Ph.D., P.T.;
Susan L. Kasser, Ph.D.

DIAGNOSIS: Neurodegenerative Disease

FOCUS AREA: Clinical Practice, Neuroplasticity

DESCRIPTION: Multiple Sclerosis (MS) is a complex, chronic disease of the central nervous system, causing progressive disability. MS is a multifaceted process of inflammatory demyelination and progressive neurodegeneration, resulting in a multitude of clinical manifestations. Impaired upright postural control (balance) and walking capacity are among the most common presentations, often leading to advanced disability, limited participation and poorer quality of life. This symposium is designed to provide attendees with evidence-based knowledge of the causes and effective treatment approaches for balance and gait problems in MS.

Weight Management Interventions for People With Mobility Impairments: Increasing Relevance, Accessibility, and Sustainability #3228

DATE: 29 October **TIME:** 11:00 – 12:15

FACULTY: Susan Robinson-Whelen, Ph.D.;
Katherine Froehlich-Grobe, PhD;
James H Rimmer, PhD;
Margaret A. Nosek, PhD

DIAGNOSIS: DIAGNOSIS-Independent

FOCUS AREA: Policy

DESCRIPTION: Obesity rates are strikingly high among people with disabilities. Physical activity and weight loss programs are often inaccessible and fail to offer information and strategies that address the circumstances of people with disabilities. This symposium will describe efforts to develop relevant and accessible weight loss programs and will describe a framework for adapting evidence-based obesity prevention strategies for people with disabilities. The speakers and audience will be challenged to address how adapted programs can be scaled to public health and how such programs can better respond to the needs of people who represent the full range of abilities.

The Use and Applicability of the CIQ in International and Diverse Population Groups #3769

DATE: 29 October **TIME:** 11:00 – 12:15

FACULTY: Barry Willer, PhD;
Libby Callaway, BAppSci(OT), MOT;
Christine Migliorini, B App Sci, MPH, MSWQ, PhD, MAASW;
Joanne C Enticott, PhD;
Thilo Kroll, PhD;
Anna Kratz

DIAGNOSIS: DIAGNOSIS-Independent, International

FOCUS AREA: Outcomes Research

DESCRIPTION: The Community Integration Questionnaire (CIQ) was recently revised and now has norms based on a survey of 2000 able-bodied persons in Australia. Modifications and additions included items on use of technology for social integration. This symposium will describe the value of normative data for examining rehabilitation outcomes and for international comparisons. Presenters will also describe the applicability of the CIQ to various culturally diverse and marginalized groups, including indigenous populations, people with

traumatic brain and spinal cord injury, and young people with disability living in nursing homes. Presenters will describe a study of the revised CIQ and available norms that reveals a substantial gap between those with TBI and the general population. A study of people with SCI will highlight health and healthy behavior correlates of community integration, also using the revised scoring structure.

Assessment of Military Multitasking Performance Dual-task Components: Informing Return-to-Duty After Concussion #4111

DATE: 29 October **TIME:** 11:00 – 12:15

FACULTY: Karen Leigh McCulloch, PT, PhD, NCS;
Margaret (Maggie) M. Weightman, PT, Ph.D.;
Matthew Scherer, PT, PhD;
Mary Vining Radomski, PhD, OTR/L

DIAGNOSIS: Brain Injury, Outcomes Research

FOCUS AREA: Military

DESCRIPTION: Concussed Service Members often demonstrate physical and psychological conditions that interfere with peak performance of warrior tasks. Subtle symptoms associated with mTBI can compromise rapid, safe return-to-duty, but are difficult to assess. In this presentation, we will summarize the validation findings to DATE for the Assessment of Military Multitasking Performance, a performance-based assessment that includes 3 dual task components to help inform duty-readiness decisions for Service members after concussion/mTBI. Implications of these research findings on test development for civilian practice will be outlined.

Neuroplasticity after Spinal Cord Injury #4524

DATE: 29 October **TIME:** 11:00 – 12:15

FACULTY: Victor Reggie Edgerton, Ph.D.;
Jonathan Rickel Wolpaw, M.D.;
Aiko K. Thompson, Ph.D.;
Monica A. Perez, PT, PhD

DIAGNOSIS: Spinal Cord Injury, Neuroscience

FOCUS AREA: Neuroplasticity

DESCRIPTION: This symposium will provide an upDATE on the most current approaches used to induce plasticity and promote recovery of motor function in humans after SCI. The interactions between topics that focus on physiological and functional outcomes and therapeutic strategies will enhance the spectrum of interest of specialists in SCI and related areas of research. The absence of universally accepted treatments for motor impairment after SCI and the limited behavioral gains of present rehabilitative interventions underline the importance of our session.

Stroke Award Lecture: Electrical Stimulation in Stroke Rehabilitation: A Critical Assessment #4408

DATE: 29 October **TIME:** 11:00 – 12:15

FACULTY: John Chae, MD

DIAGNOSIS: Stroke

FOCUS AREA: Clinical Practice

DESCRIPTION: In conjunction with the National Stroke Association, ACRM has instituted the world's only award to honor outstanding care and science for the 7.5 million stroke survivors in the United States, and millions more worldwide. The inaugural winner is John Chae, MD, Professor and Chair of Physical Medicine and Rehabilitation at Case Western Reserve University.

The inaugural award recognizes the outstanding work of John Chae, MD and his contributions to stroke rehabilitation. He will present the award lecture, Electrical Stimulation in Stroke Rehabilitation: A Critical Assessment on Thursday, 29 October during the ACRM 92nd Annual Conference. He will also present a brief vision for stroke rehabilitation at the ACRM Stroke ISIG business and networking meeting on Wednesday morning, 28 Oct.

NIDILRR-Sponsored ARRT Young Investigators Panel of Oral Presentations #1014

DATE: 29 October **TIME:** 11:00 – 12:30

FACULTY: Carmen E. Capo-Lugo, PT, PhD;

Hyun Ka, Ph.D;

Rachel E Ward, PhD, MPH;

Shashwati Geed, PhD;

Lucia Smith-Wexler, Ph.D.

BRUCKER INTERNATIONAL LUNCHEON: Dissociation between Memory Processes: The Contribution of Research on Memory Impairment following Traumatic Brain Injury #1028 *(separate registration required)*

DATE: 29 October **TIME:** 12:30 – 14:00

FACULTY: Eli Vakil, PhD

DIAGNOSIS: Brain Injury

FOCUS AREA: Clinical Practice

DESCRIPTION: TBD

**NEURODEGENERATIVE DISEASES NETWORKING GROUP LUNCHEON:
Without BrainHealth, We do NOT have Health #1027** *(separate registration required)*

DATE: 29 October **TIME:** 12:30 – 14:00

FACULTY: Sandi Chapman, Ph.D.: Dr. Chapman is the Dee Wylie Distinguished University Professor at the University of Texas at Dallas and founder and chief director of the Center for Brain Health.

DIAGNOSIS: Neurodegenerative Disease

FOCUS AREA: Other

DESCRIPTION: Dr. Chapman will share her translational research and its interdisciplinary approach to achieving optimal brain performance in people of all ages in health, injury and disease. Her perspective sheds light on why a brain health movement is on the horizon and provides insight into the future of brain health.

Opportunities & New Directions for Rehabilitation Research from Directors of NCMRR & NIDILRR #1005

DATE: 29 October **TIME:** 14:00 – 15:00

FACULTY: Alison Cernich, PhD, ABPP-Cn: director of the National Center for Medical Rehabilitation Research (NCMRR) at the Eunice Kennedy Shriver National Institute of Child Health and Human Development, National Institutes of Health

John Tschida, MPP: director of the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR), Administration for Community Living, US Department of Health and Human Services

DESCRIPTION: Learn about emerging changes in health care policy and the current funding climate in Washington that may impact your research agenda and future access to rehabilitation services.

This presentation will focus on the current portfolio of rehabilitation research across NIH, the focus of research funded by NCMRR, and major advances from the portfolio over the past five years.

Opportunities for funding, mechanisms by which researchers can gain support for their research projects or training needs, and resources that may be of assistance to researchers in the field will be presented. Finally, the presentation will include an overview of the goals for rehabilitation research that will become part of a Rehabilitation Research Plan for the National Institutes of Health and the process by which inputs to that plan will be solicited.

While the transition from NIDRR to NIDILRR creates a world of opportunity, an environment of fiscal austerity and rapidly evolving health policy continues to present challenges. What does the future hold for individuals with disabilities, the rehabilitation research community, and the agencies that fund them?

PLENARY III: Maintaining Cognitive Well-Being with Age: The Role of Social and Cognitive Engagement #1003

DATE: 29 October **TIME:** 15:00 – 16:00

FACULTY: Denise C. Park, PhD

Dr. Denise Park is Distinguished University Chair in Behavioral and Brain Sciences, director of research at the Center for Vital Longevity, and the University of Texas Regents' Research Scholar at the University of Texas at Dallas.

DIAGNOSIS: DIAGNOSIS-Independent

FOCUS AREA: Geriatric

DESCRIPTION: Brain imaging has revealed that healthy brains--even old ones--continuously change and adapt to their environment. There is a small but growing scientific literature suggesting that engagement in mentally-challenging activities helps maintain cognitive function in old age. This presentation will focus on the "Synapse Project," where older adults were immersed in learning challenging new activities for 15 hours a week for three months. Cognitive enhancement was observed from learning quilting and digital photography but not from socializing or working at home on tasks that were knowledge-based. Changes in brain activity were also observed.

The Post-Traumatic Confusional State: Developing a Case Definition #2853

DATE: 29 October **TIME:** 16:15 – 17:30

FACULTY: Yelena Bodien; Douglas I Katz, MD; Mark Sherer, Phd

DIAGNOSIS: Brain Injury, Research Methods

FOCUS AREA: Clinical Practice

DESCRIPTION: Recovery from severe traumatic brain injury (TBI) often includes a period of anterograde amnesia, disorientation, and other cognitive and neurobehavioral symptoms. This phase of recovery has been labeled as post-traumatic amnesia and more recently as post-traumatic confusional state (PTCS). The latter conceptualization includes not only disruptions in orientation and memory but also attentional impairments, symptom fluctuation, agitation, altered sleep/wake cycles, and psychotic-type symptoms. Despite an emerging body of literature characterizing PTCS symptoms, recovery, and prognostic value, a consensus-based definition has not been developed. Furthermore, while a standardized measure for assessment of PTCS has been validated (Confusion Assessment Protocol), it is currently used primarily as a research tool and its clinical utility has not been demonstrated. Finally, few evidence-based treatment options for the confused patient are available. The ACRM Disorders of Consciousness Task Force is in the process of developing a consensus-based case definition of PTCS and developing diagnostic criteria based on published literature with the aim of informing the clinical rehabilitation community of this syndrome. During this symposium, findings of the task force regarding phenomenology, course, outcome, prognosis, distinction from other clinical states, and possible neurophysiologic or neuroanatomic causes will be discussed. In addition, current strategies for assessment and management of PTCS will be reviewed.

Project Career: Using Technology to Help Students With TBI Transition from College to Employment #2903

DATE: 29 October **TIME:** 16:15 – 17:30

FACULTY: Eileen Elias, MEd;
Marcia Joslyn Scherer, PhD, MPH, FACRM;
Anne Leopold, MSc;
Phillip D Rumrill, jr., PhD, Crc;
Karen Jacobs, EdD, OTR/L, CPE, FAOTA;
Deborah J Hendricks, Ed.D.;
Amanda Nardone, B.S.;
Callista Stauffer;
Elaine Sampson, CRC

DIAGNOSIS: Brain Injury, Outcomes Research

FOCUS AREA: Technology

DESCRIPTION: The presentation will highlight activities and lessons learned from Project Career – a 5-year development project funded by NIDRR to support the transition of Veteran and civilian students with TBI from postsecondary academic settings to employment. Merging best practices from the assistive technology field and vocational rehabilitation, Kent State University, West Virginia University, Boston University, and JBS International is providing services and supports to a minimum of 150 students with TBI. iPads provide the technological infrastructure for providing supports and services, including cognitive support, mentoring, case management, and follow-along support to maximize students' career readiness and transition to employment settings.

The Rehabilitation of Glioblastoma Multiforme Patients #2913

DATE: 29 October **TIME:** 16:15 – 17:30

FACULTY: Jack Brian Fu, M.D.

DIAGNOSIS: Brain Injury, Cancer, Outcomes Research

FOCUS AREA: Clinical Practice

DESCRIPTION: Glioblastoma multiforme (GBM) or World Health Organization (WHO) Grade IV astrocytoma is the most common primary brain tumor affecting adults. The tumor and its treatments can leave patients with devastating neurologic deficits that include paresis, cognitive deficits, fatigue, cachexia, spasticity and neurogenic bowel/bladder. Unfortunately, glioblastoma multiforme also carries a poor prognosis with a reported median lifespan between 12-15 months from DIAGNOSIS. Rehabilitation can have a significant impact on the function and quality of life of these patients.

Resurrecting Interdisciplinary Pain Care: Identifying Barriers and Improving Access #2938

DATE: 29 October **TIME:** 16:15 – 17:30

FACULTY: Jennifer L. Murphy, Ph.D;

W. Michael Hooten, MD;

Peter Abaci, MD

DIAGNOSIS: Pain

FOCUS AREA: Clinical Practice

DESCRIPTION: Despite the well-documented clinical benefits and cost effectiveness of interdisciplinary pain care, various barriers exist for implementing this treatment model. This symposium is aimed at identifying the most significant barriers to interdisciplinary pain care in the modern era, demystifying access to interdisciplinary programs, and discussing avenues to improve the growth of interdisciplinary options.

Enhancing Clinical Decision Making: The Use of Conceptual Frameworks to Improve Clinical Practice #2947

DATE: 29 October **TIME:** 16:15 – 17:30

FACULTY: Andrew Packel, PT, NCS

DIAGNOSIS: Other, DIAGNOSIS-Independent

FOCUS AREA: Clinical Practice

DESCRIPTION: Clinical decision-making is the method used during each rehabilitation treatment session by which the clinician must synthesize, prioritize, and act upon an enormous amount of information in order to select a treatment to deliver to their patient. This talk will explore the use of conceptual frameworks and how their application can enhance decision-making in rehabilitation. Several developing frameworks will be introduced, and video cases, as well as treatment examples solicited from the audience, will be used to demonstrate the use of these frameworks in clinical practice.

The Role of Therapy Services in the Rehabilitation of Pediatric Patients on Ventricular Assist Devices #2957

DATE: 29 October **TIME:** 16:15 – 17:30

FACULTY: Melissa Lusby, OT, OTR, LOT;

Robin Rae Schlosser, PT, MS , CKTP;

Aubree Lee Henton

DIAGNOSIS: Stroke, Other

FOCUS AREA: Pediatric

DESCRIPTION: The use of ventricular assist devices (VADs) is becoming increasingly prevalent within the pediatric population as a bridge to transplant and for overall recovery. The goal of this presentation is to provide

an introduction and explanation of these devices, discuss maximizing quality of life and rehabilitation potential while on VAD support, and to discuss importance of interdisciplinary care throughout their course of treatment.

A National Initiative in Cancer Rehabilitation #2958

DATE: 29 October **TIME:** 16:15 – 17:30

FACULTY: Nicole L Stout, DPT; Vishwa Raj, MD; Julie K Silver, MD; Mary Vining Radomski, PhD, OTR/L

DIAGNOSIS: Cancer, Clinical Practice

FOCUS AREA: Research Methods

DESCRIPTION: In 2014 the Rehabilitation Medicine Department of the National Institutes of Health convened a Cancer Rehabilitation subject matter expert (SME) group to investigate evidence regarding: i) Models of care in cancer rehabilitation, ii) Screening for impairment and toxicity related to cancer treatment, iii) Functional outcomes measures, and iv) Interdisciplinary integration of rehabilitation services and shared decision making. The findings from this initiative were presented in a conference forum in June 2015 with dissemination efforts ongoing. This symposium presents a synopsis of the SME findings and highlights opportunities for future research and clinical advancements in Cancer Rehabilitation.

SCORE: Randomized Controlled Trial of Cognitive Rehabilitation for Service Members With Mild Traumatic Brain Injury #2963

DATE: 29 October **TIME:** 16:15 – 17:30

FACULTY: Douglas B. Cooper, Ph.D., ABPP-CN;

Amy O. Bowles, MD;

Rodney Vanderploeg, PhD;

Melissa Ray, M.S., CCC-SLP;

M Marina LeBlanc, OTR;

Jon Grizzle

DIAGNOSIS: Brain Injury, Other, Military

FOCUS AREA: Clinical Practice

DESCRIPTION: The SCORE clinical trial is a large, randomized-controlled trial (RCT) of cognitive rehabilitation (CR) for military personnel with persistent cognitive complaints following deployment-related mild traumatic brain

injury (mTBI) including four treatment arms: 1) psychoeducation, 2) self-directed computerized CR, 3) therapist-directed manualized CR, and 4) integrated interdisciplinary CR including cognitive behavioral psychotherapy. The SCORE team will present study findings and hands-on training in how to provide the intervention. The target audience includes researchers in the fields of rehabilitation and evidence-based interventions as well as rehabilitation providers who are interested in understanding the application of this evidence-based clinical trial into their practice.

Cognitive Reserve in Healthy Aging and Long-Term Outcomes for Individuals With Brain Injury #3014

DATE: 29 October **TIME:** 16:15 – 17:30

FACULTY: Stephanie A. Kolakowsky-Hayner, PhD, CBIST;
Fofi Constantinidou, PhD, FACRM;
Eli Vakil, PhD;
Kristine T. Kingsley, Psy.D., ABPP

DIAGNOSIS: Brain Injury, DIAGNOSIS-Independent, International

FOCUS AREA: Outcomes Research

DESCRIPTION: Cognitive Reserve (CR) is considered the mind's resilience to neuropathology and has gained attention in the recent years in respect to a possible contribution in delaying the symptoms of pathological aging. This symposium will provide a brief overview of CR in general and describe its experimental applications within a healthy aging population and within a cohort of individuals with brain injury. A discussant will then briefly summarize the concepts presented and lead a conversational question and answer session.

A Multidimensional Approach to Combating Obesity Among Persons With Spinal Cord Injury #3018

DATE: 29 October **TIME:** 16:15 – 17:30

FACULTY: Nicholas Evans, MHS, ACSM-CES;
Ashraf S. Gorgey, PT, PhD, FACSM;
Maiya Slusser, MS, RD, CNSC;
Brooks C Wingo, PhD

DIAGNOSIS: Spinal Cord Injury, Other

FOCUS AREA: Clinical Practice

DESCRIPTION: The Centers for Disease Control reports that the prevalence of obesity among adults with disabilities, including spinal cord injury (SCI), is 57% higher than the aggregate adult population. Obesity is a primary risk factor for development of cardiometabolic diseases including cardiovascular disease and type 2 diabetes. In persons with SCI it is also associated with increased secondary conditions including pain, fatigue and decreased mobility. Unhealthy dietary patterns and insufficient levels of physical activity are two primary causes of the condition. Clinical guidelines suggest that prevention and treatment of overweight/obesity should involve lifestyle intervention including diet modification, participation in strength and aerobic exercise, and behavioral and lifestyle change. Despite the effectiveness of these interventions among the non-disabled population, they are rarely implemented as part of unified strategy to combat obesity among persons with SCI. In this course, an interdisciplinary panel of clinicians and researchers in the fields of clinical exercise physiology, nutrition and dietetics, and behavior change modification will highlight current evidence and practical methods for treating obesity and optimizing long-term health within the SCI community. Presentations will be given in the context of promoting exercise and diet modification throughout the continuum of care and developing strategies to encourage healthy living following discharge from rehabilitation. The session will end with a guided panel discussion and audience Q&A in which current and future recommendations for implementing various obesity prevention strategies will be addressed.

Are Persons With Spasticity After Stroke and Multiple Sclerosis More Imbalanced? #3136

DATE: 29 October **TIME:** 16:15 – 17:30

FACULTY: Chetan P. Phadke, BPhT, PhD;
George Mochizuki, PhD;
William Gage, PhD;
Arnaud Gouelle; Jacob Sosnoff, PhD;
Reza Rahimzadeh Khiabani;
Farooq Ismail, M.D.;
Chris Boulias, M.D., Ph.D.

DIAGNOSIS: Stroke, Other, Neuroscience

FOCUS AREA: Clinical Practice

DESCRIPTION: Spasticity and balance problems are commonly seen in upper motor neuron lesions such as stroke and multiple sclerosis (MS); however, the relationship between the two is not clear. Clinicians routinely observe that patients with spasticity also have balance problems. In this symposium we present evidence showing the relationship between spasticity and balance impairments using clinical scales as well as instrumented objective tests of balance impairment.

Assessment and Treatment of the Upper Extremity to Facilitate Neuroplasticity in People With Tetraplegia #3137

DATE: 29 October **TIME:** 16:15 – 17:30

FACULTY: Deborah Backus, PT, PhD;
Edelle (Edee) C. Field-Fote, PhD, PT, FAPTA

DIAGNOSIS: Spinal Cord Injury

FOCUS AREA: Clinical Practice, Neuroplasticity

DESCRIPTION: Upper extremity function is of paramount importance to people with tetraplegia, yet there is little guidance on how to assess and treat the impaired motor control that emerges after injury. Emerging evidence suggests that applying principles known to facilitate neural plasticity after nervous system injury, such as adjuvant strategies to augment the effects of training and practice, can improve upper extremity function. This presentation will describe a model to guide the choice of upper extremity outcome measures. A hypothesis will be advanced related to treatment of upper extremity dysfunction in people with incomplete tetraplegia. Finally, some successful strategies for applying research findings to clinical practice will be reviewed.

Training Assistive Technology: New Research and Best Practices #3178

DATE: 29 October **TIME:** 16:15 – 17:30

FACULTY: Tessa Hart, PhD;
Laurie Ehlhardt Powell;
Linda J Resnik, PT, PhD;
Allen Heinemann, PhD

DIAGNOSIS: DIAGNOSIS-Independent, Clinical Practice

FOCUS AREA: Technology

DESCRIPTION: Assistive technology (AT) is a key element of rehabilitation that supports both physical and cognitive function. Systematic training in the use of AT is often neglected, but is critical to help clients achieve optimal use and to prevent device abandonment. In this symposium, 3 experts will present empirical findings on the learning principles and training methods that support AT mastery. Presentations will address training in assistive technology for cognition (Laurie Ehlhardt Powell, PhD, CCC-SLP); training on a sophisticated prosthetic arm (Linda Resnik, PT, PhD); and an approach to formal assessment and training of wheelchair skills (Allen Heinemann, PhD, FACRM).

Quality, Evidence, and Advocacy in the New Era of Healthcare #3154

DATE: 29 October **TIME:** 16:15 – 17:30

FACULTY: Lex Frieden, M.A., LL.D.;
Matthew Davis, M.D.;
Suzanne Groah, MD, MSPH;
Rochelle E Tractenberg, Ph. D., M.P.H., Ph.D., PStat®;
Merrill Friedman

DIAGNOSIS: Spinal Cord Injury, DIAGNOSIS-Independent, Outcomes Research

FOCUS AREA: Policy

DESCRIPTION: Quality measures play an increasing role in Medicare reimbursement. Critics highlight the failure of Quality measures to appreciate the needs of medically complicated patients – including those with disabilities. This symposium addresses challenges with current measures, difficulties with statistical analysis, the role of managed care, and the need for advocacy by consumers and providers. The panel includes Drs. Matt Davis and Suzanne Groah, physician specialists in SCI; Dr. Rochelle Tractenberg, an expert in statistics and measurement; Ms. Merrill Friedman, Director of Disability Policy Engagement at Amerigroup; and Lex Frieden, an internationally recognized leader in advocacy for people with disabilities.

Addressing Disparities in Neurorehabilitation: A Framework for Cultural and Linguistic Competency in Treatment and Research #3180

DATE: 29 October **TIME:** 16:15 – 17:30

FACULTY: Marlene Vega, Psy.D.;
Aida Saldivar, Ph.D., ABPP-RP, QME;
Carlos Daniel Marquez de la Plata, PhD

DIAGNOSIS: Brain Injury, Stroke, Policy

FOCUS AREA: Outcomes Research

DESCRIPTION: An increasingly culturally and linguistically diverse population presents challenging disparities in rehabilitation medicine. Data from 1294 patients with acquired brain injuries who received PABIR between 2010 and 2014 demonstrated that among patients with TBI, African Americans had a significantly smaller treatment response compared to Caucasians and Hispanics as measured by Mayo-Portland Adaptability Inventory-4 (MPAI-4) ratings. Among patients with strokes, African Americans demonstrated a smaller treatment response than Caucasians. Social and environmental factors affecting treatment outcomes will be discussed. Solutions for

addressing disparities in neurorehabilitation will be considered through a framework for the advancement of organizational cultural and linguistic competence.

Beyond the Boundaries of Traditional Rehabilitation: Addressing Fatigue, Emotional Processing, Everyday Living, and Caregiver Burden #3244

DATE: 29 October **TIME:** 16:15 – 17:30

FACULTY: Yael Goverover, PhD, OT;
Helen Genova; Jean Lengenfelder;
Denise Krch, PhD

DIAGNOSIS: Brain Injury, Neurodegenerative Disease

FOCUS AREA: Clinical Practice

DESCRIPTION: Rehabilitation is generally focused on restoring physical and cognitive functions in clinical populations. The current symposium will discuss symptoms and functions which should be emphasized and addressed in rehabilitation and research. We will present innovative techniques to assess and treat fatigue, including functional magnetic resonance imaging; evidence to support the treatment of persons with emotional processing impairments to improve abilities such as facial affect recognition; A new approach to generalize treatment to everyday life activities will be presented. Lastly, initial findings from a support-based intervention to improve caregivers' quality of life will be presented.

FDG Positron Emission Tomography Opening New Windows in Multiple Sclerosis Research #3405

DATE: 29 October **TIME:** 16:15 – 17:30

FACULTY: Jeffrey R Hebert, Ph.D., P.T.;
Thorsten Rudroff, PhD;
John Harvey Kindred, M.S.;
Nathan Ketelhut, B.S.

DIAGNOSIS: Brain Injury, Neurodegenerative Disease, Other

FOCUS AREA: Technology

DESCRIPTION: Positron emission tomography (PET) with [18F]-Fluorodeoxyglucose (FDG) is a noninvasive technique for quantitative imaging of biochemical and physiological processes in humans. Multiple Sclerosis

(MS) is a complex disease, in which several processes can be selected as a target for PET imaging. Imaging of different MS hallmarks could enable better understanding of the disease, characterization of disease phenotypes, monitoring of disease progression, and treatment design, selection and evaluation. Despite the potential of PET, its applications in MS have remained limited. This symposium will present novel findings of our PET imaging studies in patients with MS targeting glucose uptake in skeletal muscles, brain and spinal cord.

Oral Presentation of Scientific Papers #1015

DATE: 29 October **TIME:** 16:15 – 17:30

FACULTY: Juliet Haarbauer-Krupa, PhD;
Tatyana Mollayeva, MD, PhD (cand);
Jennifer Bogner, PhD, ABPP, FACRM;
Yelena Bogdanova, PhD, PhD





CORE CONFERENCE DAY #3

Friday 30 October

PLENARY IV: Novel Approaches to Examining Pathophysiology Associated with Neurodegenerative Diseases and Traumatic Brain Injury: Translation to Rehabilitation #1004

DATE: 30 October **TIME:** 08:15 – 09:45

FACULTY: Marc Diamond, MD;
Christopher Giza

DIAGNOSIS: Brain Injury, Neurodegenerative Disease

FOCUS AREA: Clinical Practice

DESCRIPTION: Many neurodegenerative disorders and chronic traumatic encephalopathy feature tau protein fibrils accumulation. A propagation mechanism of these fibrils amplifies pathology and parallels prion diseases, which may explain the progression of neurodegenerative disorders. Connections between early neurometabolic changes and later functional impairments or neurodegeneration following acute TBI pathophysiology remain mostly speculative. This plenary covers 1. progress towards methods to detect tau “prions” for early diagnoses, and to block disease progression, and 2. different mechanisms by which early post-TBI mechanisms may lead to chronic deficits. Biological mechanisms in TBI will be examined with a perspective to clinical translation - including proper early management of behavioral or pharmacological interventions to enhance recovery.

Optimizing Exercise to Improve Physical Function for Older Adults #2907

DATE: 30 October **TIME:** 10:00 – 11:15

FACULTY: Thomas W Buford, PhD;
Joe Nocera; Summer B. Cook, Ph.D.

DIAGNOSIS: DIAGNOSIS-Independent

FOCUS AREA: Geriatric

DESCRIPTION: As the number of older adults continues to rise worldwide, the prevention of physical disability among seniors is an increasingly important public health priority. Physical exercise is among the best known methods of preventing disability, but accumulating evidence indicates that considerable variability exists in the responsiveness of older adults to standard training regimens. Accordingly, a need exists to develop tailored interventions to optimize the beneficial effects of exercise on the physical function of older adults at risk for becoming disabled. This symposium will discuss the evidence underscoring the need for tailored exercise interventions and highlight several promising research opportunities in this area.

Incidence of Traumatic Brain Injury in the United States #2911

DATE: 30 October **TIME:** 10:00 – 11:15

FACULTY: Christopher A. Taylor, PhD;
Jeneita Bell, MD, MPH;
Matthew Breiding, PhD;
Victor Coronado, MD, MPH;
Likang Xu, MD, MS;
Tadesse Haileyesus, MS

DIAGNOSIS: Brain Injury

FOCUS AREA: Outcomes Research

DESCRIPTION: Traumatic brain injury (TBI) is a preventable public health problem affecting many people in the US regardless of age, sex, or socioeconomic status. This symposium will seek to describe (1) the role of the Centers for Disease Control and Prevention (CDC) in TBI public health prevention, (2) upDATED estimates of the national incidence of TBI in the US, (3) state-level estimates of TBIs, and (4) methods to examine sports-related emergency department visits.

Healthcare and Career Transition to Adulthood for Adolescents With Traumatic Brain Injury #2916

DATE: 30 October **TIME:** 10:00 – 11:15

FACULTY: Julie Haarbauer-Krupa, PhD;
Bonnie Todis, Ph.D.;
Mary RT Kennedy, Ph.D.

DIAGNOSIS: Brain Injury, Other, Pediatric

FOCUS AREA: Clinical Practice

DESCRIPTION: Transition to adulthood is an important issue for adolescents with traumatic brain injury (TBI). As reports of TBI health effects are evolving, children and youth, who can experience a TBI at any point in their development, may experience delayed health effects beyond the initial injury care and are particularly vulnerable to lapses in healthcare, school, and career transition as they move from childhood to adult healthcare providers. This symposium will present data on healthcare, school, and career transition and three models of service that can inform clinicians about the planning and care of adolescents with TBI as they transition to adulthood.

The Surgical and Rehabilitation Management of Patients With Sacro-Pelvic Tumors #2967

DATE: 30 October **TIME:** 10:00 – 11:15

FACULTY: Justin Bird, M.D.;
Ying Guo, M.D.;
Rajesh Yadav, M.D.

DIAGNOSIS: Cancer

FOCUS AREA: Clinical Practice

DESCRIPTION: This symposium will provide an overview of surgical and rehabilitation interventions necessary to manage challenging patients with sacro-pelvic tumors. Significant concerns including pain, functional deficits, neurogenic bowel and bladder are often present. Role of pre-habilitation will also be discussed. these challenging patients. Usefulness of pre-habilitation will also be discussed.

Post-Hospital Brain Injury Rehabilitation Outcomes: Report From the National Outcome Info Database #3019

DATE: 30 October **TIME:** 10:00 – 11:15

FACULTY: James F Malec, PhD;
Thomas Murphy; Vicki Eicher, MSW;
Mary Pat Murphy, MSN, CRRN, CBIST;
Irwin Altman, PhD, MBA;
Shannon Swick, M.A;
Jacob Kean, PhD, CCC-SLP

DIAGNOSIS: Brain Injury, Stroke, Clinical Practice

FOCUS AREA: Outcomes Research

DESCRIPTION: OutcomeInfo is a web-based database system, developed through NIH Small Business Technology Transfer (STTR) funding, for monitoring progress and outcomes in post-inpatient programs primarily with the Mayo-Portland Adaptability Inventory (MPAI-4). Analyses of outcomes and methods will be presented for intensive post-inpatient brain injury (BI) residential and outpatient/community-based rehabilitation programs in contrast to supportive living programs for almost 3000 individuals living with BI throughout the U.S. represented in the OutcomeInfo database. A multidisciplinary panel will describe (1) the OutcomeInfo database system, (2) key features of major program types, and (3) outcomes and participant characteristics for each program type.

Cognitive Motor Interference in Neurodegenerative Diseases: Assessment and Rehabilitation Advances #3100

DATE: 30 October **TIME:** 10:00 – 11:15

FACULTY: Jacob Sosnoff, PhD;
Abiodun Emmanuel Akinwuntan, PhD, MPH;
Valerie Kelly, PT;
Hannes Devos, PhD, DRS

DIAGNOSIS: Neurodegenerative Disease, Research Methods

FOCUS AREA: Neuroscience, Neuroplasticity

DESCRIPTION: It is well known that individuals with neurodegenerative diseases such as Parkinson disease (PD) and Multiple Sclerosis (MS) have declines in both cognitive and motor function. In addition, an interaction between cognition and motor control is suggested by declines in cognitive and/or motor performance when performed simultaneously. Traditionally, cognitive and motor deficits have been targeted individually for

rehabilitation. However, there is emerging evidence that cognitive-motor coupling can be directly targeted. This symposium will discuss the assessment and consequences of cognitive motor interference as well as rehabilitative strategies for targeting cognitive-motor coupling in neurodegenerative diseases. An important aspect of this symposium is that it will discuss a variety of motor tasks including postural control, walking, and driving.

Non-Invasive Brain Stimulation in Stroke for Imaging and Function #3191

DATE: 30 October **TIME:** 10:00 – 11:15

FACULTY: Stephen Page, PhD, OTR/L;
Marcie Bockbrader, MD PhD;
Lise Worthen-Chaudhari, MFA, MS, CCRC

DIAGNOSIS: Stroke, Other

FOCUS AREA: Neuroscience, Neuroplasticity

DESCRIPTION: Stroke remains a leading cause of disability and its incidence is expected to rise, yielding an increased prevalence of stroke survivors with life altering deficits. Unlike behavioral, subjective approaches that are traditionally used to evaluate stroke survivors, non-invasive brain stimulation offers the possibility of directly targeting brain structures to measure neuronal output and interactions, and understand role of networks and their chronometry in behavior. Moreover, these same techniques can be used to facilitate or inhibit their activity therapeutically so as to steer neural plasticity and functional remapping towards recovery. Recent advances in stereotactic navigation and electric field modeling are also enabling more precise targeting of patient's residual structures in DIAGNOSIS and therapy. The overall goal of this seminar is to introduce clinicians to noninvasive brain stimulation (NBS) theory, evidence and application to the hemiparetic upper and lower extremities. Given its promise and increasing use, this presentation first introduces the use and wide-ranging significance of NBS – and specifically transcranial magnetic stimulation (TMS) and transcranial direct current stimulation (tDCS) - in neurorehabilitation, including in stroke, pediatrics, traumatic brain injury, focal hand dystonia, neuropathic pain and spinal cord injury. This is followed by specific discussions of the use, design, mechanisms and expected outcomes of NBS in stroke survivors.

Identifying Biomarkers for Concussion Through Assessment of Vision, Balance, and Vestibular Function #3206

DATE: 30 October **TIME:** 10:00 – 11:15

FACULTY: Drew Davis, MD;
Katherine K Weise, OD, MBA, FAAO;
Jennifer Christy, Ph.D.;
James Michael Johnston, Jr., M.D.

DIAGNOSIS: Brain Injury, Other, Research Methods

FOCUS AREA: Clinical Practice

DESCRIPTION: The DIAGNOSIS of concussion can be challenging and elusive at TIMES due to the significant reliance on history and patient report, with objective exam findings someTIMES absent. For individuals who have a prolonged recovery or develop post-concussive syndrome, it is often difficult to distinguish symptoms related to pre-existing or co-morbid conditions from those attributable to concussion. Vision, balance, and vestibular function are frequently impacted by concussion and measurement of these systems shows promise for providing an objective, non-invasive means of identifying biomarkers for the DIAGNOSIS of concussion while providing targets for rehabilitation.

Starting a Supportive Cancer Care Service: Merging Rehabilitation and Palliative Medicine #3213

DATE: 30 October **TIME:** 10:00 – 11:15

FACULTY: Rebecca T. Armendariz, M.D.

DIAGNOSIS: Cancer, Other

FOCUS AREA: Clinical Practice

DESCRIPTION: This symposia lecture reviews the evolution of a comprehensive cancer care model within the setting of cancer rehabilitation and palliative medicine services. It introduces the concept of merging these two areas into a Supportive Cancer Care service line as a strategy when starting a new cancer center. It will review the clinical areas in which rehabilitation and palliative medicine cross over and the advantage of having physicians trained in physical medicine and rehabilitation along with palliative care. It will also introduce strategies on how to implement new service lines in comprehensive cancer care.

Clinical Practice Guidelines and Knowledge Translation Strategies for Use of Advanced Technologies for Gait Recovery #3233

DATE: 30 October **TIME:** 10:00 – 11:15

FACULTY: Amber Devers, PT, DPT, NCS; Matt Wilks, PT, MSPT, NCS; Anne H. Chan, PT, DPT, MBA, NCS

DIAGNOSIS: Brain Injury, Stroke, Technology

FOCUS AREA: Clinical Practice, Neuroplasticity

DESCRIPTION: This symposium will review the fusion of multiple advanced technologies into a systematic framework for gait recovery and will describe knowledge translation strategies in neurorehabilitation to improve patient outcomes. The presenters will facilitate interactive discussion with symposium attendees on strategies to improve, standardize, and sustain use of evidence in daily clinical practice.

Big Data: An International Perspective With Relevance to Rehabilitation #3234

DATE: 30 October **TIME:** 10:00 – 11:15

FACULTY: Angela Colantonio, PhD, FACRM;
Fofi Constantinidou, PhD, FACRM;
Andrea Montis, M.D.

DIAGNOSIS: Brain Injury, Research Methods

FOCUS AREA: Outcomes Research

DESCRIPTION: The analyses of large epidemiological and other large data sets are increasingly seen as the future of advancing research on traumatic brain injury using a multidisciplinary approach given the complexity of traumatic brain injury patients. The overall goal of this presentation is to provide an overview of large multisite projects in both North American and Europe that can advance knowledge about traumatic brain injury outcomes from a more population based perspective.

Impact of War: Differences and Similarities Within Transitioning Populations #3252

DATE: 30 October **TIME:** 10:00 – 11:15

FACULTY: Joel Scholten, MD;
Marilyn Kraus, M.D.;
Manon M. Schladen, PhD candidate;
Ellen Kathleen Danford, BA;
Alexander Libin, PhD;

Dwan Bruner, MS;
Samantha Cichon, BA

DIAGNOSIS: Brain Injury, Other, Military

FOCUS AREA: Clinical Practice

DESCRIPTION: This symposium offers an in-depth analysis of the factors affecting post-rehabilitative community reintegration in Veterans and civilians with TBI. Clinical practice and psychosocial research will elucidate the similarities and difference found in these two populations through evaluation of five highly prevalent symptoms resultant from TBI, specifically headache, sleep disturbance, mood disorders, balance issues, and cognitive dysfunction as related to independent psychosocial functioning and quality of life. Subject matter experts will facilitate discussion of practical applications of research in distinct populations to enhance best practices.

Clinical Motion Analysis, Laboratory Accreditation, and the Future of Instrumented Gait Analysis in the Rehab Setting #3269

DATE: 30 October **TIME:** 10:00 – 11:15

FACULTY: James Jeffrey Carollo, PhD, PE

DIAGNOSIS: DIAGNOSIS-Independent, Policy

FOCUS AREA: Technology

DESCRIPTION: Human motion analysis has evolved from a novel research tool to a recognized clinical resource for rehab professionals treating individuals with pathologic gait. But unlike other diagnostic resources, gait laboratories have been reluctant or unable to impose standards of performance for their measurements or establish best practices to assure quality and consistency. Independent motion laboratory accreditation can address these concerns, and is gaining momentum worldwide. This symposium will describe international laboratory accreditation, how these efforts are redefining clinical motion analysis to clinicians, funding sources, and the public, and how the changing health care model in the US puts instrumented gait and motion analysis at a crossroad.

(#3720) Dynamic by Design: Wheelchair Prescription in the Spinal Cord Injury Population Within a Restorative Framework

DATE: 30 October **TIME:** 10:00 – 11:15

FACULTY: Elizabeth Farrell, PT,DPT,ATP/SMS

DIAGNOSIS: Spinal Cord Injury, Neurodegenerative Disease

FOCUS AREA: Clinical Practice

DESCRIPTION: As the spinal cord injury (SCI) rehabilitation paradigm shifts from a traditional, compensatory model of care to an activity-based restorative model, the way in which we prescribe wheelchairs for patients with SCI must transform as well. Through use of a restorative seating model, clinicians can prescribe wheelchairs and dynamic seating systems designed to complement the regeneration of the nervous system and recovery of function following SCI. In utilizing the restorative approach to seating and positioning, clinicians incorporate the principles of activity, adjustability, and patient accountability into the seating evaluation and wheelchair prescription.

How to Motivate Patients with Chronic Pain Across the Continuum of Care #4048

DATE: 30 October **TIME:** 10:00 – 11:15

FACULTY: LaDonna Saxon, Ph.D.; Jeffrey S. Kinderdietz, Ph.D.

DIAGNOSIS: Pain, Military

FOCUS AREA: Clinical Practice

DESCRIPTION: Motivational Interviewing (MI) is a well-established method for enhancing client engagement in a wide variety of clinical areas, including chronic pain treatment. MI acknowledges that it essential to understand that which is most important to clients if we want to help them resolve ambivalence in the direction of change . MI is useful, both at the outset of therapy to assist with “buy in,” as well as with overcoming barriers during the treatment phase. It is a TIME efficient method that can be practically applied across all levels of chronic pain care. This symposium will also highlight values exploration techniques commonly found in other evidence based psychotherapies, which can be infused in chronic pain treatment. It is this prioritizing of clients values at the forefront, which allows us to collaboratively set treatment goals that are consistent with, and in service of, the patient’s goals of a value driven life. TIME will be allotted for discussion of converting values into actionable treatment plans, utilizing examples from primary, secondary, and tertiary pain care settings. Inherent in this will be the identification of potential barriers and methods of overcoming such.

Meet the Archives' Editors: Authorship, Reporting Guidelines, and Reviewing in Medical Rehabilitation #2954

DATE: 30 October **TIME:** 10:00 – 11:15

FACULTY: Allen Heinemann, PhD;
Leighton Chan, MD MPH;
Helen Hoenig, MD, MPH

DIAGNOSIS: DIAGNOSIS-Independent, Clinical Practice

FOCUS AREA: Research Methods

DESCRIPTION: Disseminating the results of your research is more vitally important now than ever before. Publishing your manuscript in the right journal as quickly as possible is also of paramount importance. In this symposia, the presenters, co-Editors-in-Chief of Archives of Physical Medicine and Rehabilitation, Leighton Chan, MD, MPH, and Allen W. Heinemann, PhD, ABPP, and Deputy Editors, Helen Hoenig, MD, MPH, OT, will cover topics of interest to ACRM members and particularly to early career professionals, such as authorship, preparing and submitting your manuscript, reporting guidelines, trial registration, reviewing, publication ethics, open access, and digital innovations in publishing.

Oral Presentation of Scientific Papers #1016

DATE: 30 October **TIME:** 10:00 – 11:15

FACULTY: Allan John Kozlowski, PhD, B.Sc (PT); Jayme Knutson, Ph.D.; Susan Fasoli, ScD OTR/L; Yoram Feldman, MBA

SCI-ISIG LUNCHEON: Reactivate, Rewire, Restore: Challenging the Nervous System to Optimize Function after SCI #1039 *(separate registration required)*

DATE: 30 October **TIME:** 11:30 – 13:00

FACULTY: Edelle (Edee) C. Field-Fote, PhD, PT, FAPTA: Dr. Edele Field-Fote is a leading neuroscientist and director of spinal cord injury research at Shepherd Center. She is internationally renowned for her work in motor recovery after spinal cord injury. Save the date and invite a colleague to join you for a stimulating and informative lunch.

DESCRIPTION: Evidence suggests that spinal cord and brain mechanisms underlying the control of movement adapt in response to afferent inputs such as stimulation and vibration. This beneficial neural adaptation, or adaptive neuroplasticity, is supportive of function and may counter the maladaptive plasticity that is associated with pathology of the nervous system. Using what is known about neural responses to afferent input, treatment strategies can be structured to incorporate stimulation and vibration into training programs to improve motor function.

Economic Impact of Spinal Cord Injury #2965

DATE: 30 October **TIME:** 13:15 – 14:30

FACULTY: Yuying Chen, MD, PhD;
Jeanne M Hoffman, PhD;
Yue Cao, PhD, MSPH

DIAGNOSIS: Spinal Cord Injury, Policy

FOCUS AREA: Outcomes Research

This symposium will review the methodological approaches involving the estimate of direct and indirect costs of spinal cord injury (SCI). Findings of new estimates of initial and long-term costs of care, health care utilization during the first year after initial rehabilitation, and changes in employment status and earning after SCI will be discussed. The presentations will provide recommendations for the application of the study findings in improving the cost-effectiveness and –efficiency of intervention, prevention program, and vocational rehabilitation as well as guiding future directions for research.

The Physiology of Concussion: Evidence for Activity-Based Therapy #2975

DATE: 30 October **TIME:** 13:15 – 14:30

FACULTY: Barry Willer, PhD;
John Leddy, M.D.;
Laura Balcer, MD, MSCE;
Tara Denham, PT, MA;
John Ross Rizzo, MD;
Michael J Ellis, MD FRCSC

DIAGNOSIS: Brain Injury, Clinical Practice

FOCUS AREA: Neuroscience

DESCRIPTION: This symposium will present the latest human research on the physiology of concussion and the oculomotor and vestibular issues associated with prolonged recovery. The presenters conduct leading edge research on CO2 sensitivity, dysautonomia, cerebral blood flow autoregulation, and advanced imaging of sensory integration. Researchers will provide evidence for exercise intolerance as a biological marker of concussion and mTBI. Practitioners will translate research findings into dynamic approaches to assessment and treatment from the acute stage to prolonged recovery. Research will be described with special attention to adolescents who represent a high-risk population. Presenters will also discuss return-to-play and return-to-learn strategies.

Effective Rehabilitation Interventions From Prehabilitation to Survivorship #2984

DATE: 30 October **TIME:** 13:15 – 14:30

FACULTY: Emil Berengut, P.T., D.P.T., M.S.W.,OCS

DIAGNOSIS: Cancer

FOCUS AREA: Clinical Practice

DESCRIPTION: This presentation will explore the emerging area of prehabilitation, discuss the latest advances in rehabilitation during active treatment and examine the new paradigm of rehabilitation in survivorship as a treatment and a risk reduction strategy.

Rehabilitation Interventions for Metastatic Bone Disease #3000

DATE: 30 October **TIME:** 13:15 – 14:30

FACULTY: Jesuel Padro-Guzman, M.D.; Michael O'Dell, MD; Lisa Marie Ruppert, MD

DIAGNOSIS: Spinal Cord Injury, Cancer, Other

FOCUS AREA: Clinical Practice

DESCRIPTION: An introduction to rehabilitation interventions for metastatic bone disease, including evaluation, management , and assessment of risk for pathologic fracture and/or spinal cord injury.

Application of Outcome Measures for Evidence-Based Quality Improvement Initiatives #3026

DATE: 30 October **TIME:** 13:15 – 14:30

FACULTY: Gerard Brennan; Chris MacDonell; Vishwa Raj, MD; Linda J Resnik, PT, PhD; Mary Stilphen, PT, DPT

DIAGNOSIS: DIAGNOSIS-Independent, Clinical Practice

FOCUS AREA: Outcomes Research

DESCRIPTION: This symposium addresses methods to collect standardized patient outcomes data and use this information to improve quality of care. Panelists will talk about the importance of evidence-based quality improvement work, and highlight major initiatives in rehabilitation outcome measurement collection. They will share insights and tips from successful models of outcomes-driven quality improvement initiatives. Participants will speak about their experiences and those of their health care institutions in planning data collection, selecting outcome metrics, building a data system, standardizing data collection, tracking outcomes, accessing and using their data, to inform data driven quality improvement initiatives.

A Multidisciplinary Approach to Facilitating Transition to Adulthood for Patients With Pediatric-Onset Spinal Cord Injury #3093

DATE: 30 October **TIME:** 13:15 – 14:30

FACULTY: Elizabeth Farrell, PT,DPT,ATP/SMS

DIAGNOSIS: Brain Injury, Spinal Cord Injury, Pediatric

FOCUS AREA: Research Methods

DESCRIPTION: Drawing from current evidence and case examples, we will discuss the unique challenges for patients with pediatric-onset spinal cord injury, as they transition to adulthood. A multi-disciplinary panel will discuss long-term medical care, management of chronic complications, activity-based approaches to maximizing function and independence, as well as resources for transition to school or independent living.

Preventing Wheelchair Breakdowns: Is DIY Maintenance the Solution? What's Important and How to Teach It #3217

DATE: 30 October **TIME:** 13:15 – 14:30

FACULTY: Lynn Worobey, PhD;
Trevor A. Dyson-Hudson, M.D.;
Allen Heinemann, PhD;
Michael Boninger, M.D.

DIAGNOSIS: Spinal Cord Injury, Neurodegenerative Disease, Technology

FOCUS AREA: Clinical Practice

DESCRIPTION: While assistive technology is a great enabler, wheelchair related problems, such as breakdown, have a negative impact on quality of life and participation among wheelchair users (WCUs). Repair rates are increasing and poorly maintained wheelchairs have been linked to increased breakdowns, injuries, and costs of care. This workshop will provide an overview of a wheelchair maintenance training program aimed at 1) educating clinicians on wheelchair maintenance 2) educating clinicians on how to train WCUs in a group setting in maintenance 3) educating WCUs on how perform maintenance on their own wheelchairs.

Bridging the Gap in Brain Injury Rehabilitation in a Developing Country: Models of Service Delivery #3220

DATE: 30 October **TIME:** 13:15 – 14:30

FACULTY: Arshia Ahmad, M.D., MRCP, MSc Clinical Neurolo;
Mohammed S. Moshin, M.D,Ph.D

DIAGNOSIS: Brain Injury, Stroke, Policy

FOCUS AREA: International, Neuroplasticity

DESCRIPTION: Brain injures are a leading cause of death and disability worldwide. The war on terror over the last 14 years has seen an increased number of individuals with brain injures. In the developing countries, lack of infrastructure, education and guidelines for early neurological rehabilitation means that most brain injured individuals never receive the care they need. Using Pakistan as a model for a developing country, we are identifying the gaps in brain injury management, understanding the factors at play to cause these gaps and formulating solutions to bridge these gaps by creating service delivery models that are acceptable, reproducible and sustainable.

A Syndrome Approach to Back Pain: What the Guidelines Don't Say #3259

DATE: 30 October **TIME:** 13:15 – 14:30

FACULTY: Tom M Carter, PT, MSc, BSc PT, BSc;
Hamilton Hall, MD, FRCSC

DIAGNOSIS: Other, Outcomes Research

FOCUS AREA: Clinical Practice

DESCRIPTION: The practical management of low back pain can be a challenge to any clinician. The literature is bountiful and complex regarding LBP. Yet, there is a pragmatic evidenced based approach to a screening history and examination, timing of investigations (including interpretation), specialist referral as well as initial and long term strategies for primary care management of LBP patients.

Recovery and Psychosocial Outcomes Associated With Locomotor Training and Quality of Life in Spinal Cord Injury #3263

DATE: 30 October **TIME:** 13:15 – 14:30

FACULTY: Heather Beth Taylor, Ph.D.;
D. Michele Basso, EdD, PT;
Gail F. Forrest, PhD;
Denise Fyffe, PhD

DIAGNOSIS: Spinal Cord Injury

FOCUS AREA: Outcomes Research

DESCRIPTION: This panel will discuss results of an intensive LT program on outcomes of recovery, pain, and psychosocial wellbeing. First, we will share an overview of the Christopher and Dana Reeve NeuroRecovery Network (NRN) LT program. Then we will discuss results from a group of 110 individuals with SCI before and after a course of LT evaluating changes in neuromuscular recovery, depression, pain, and QoL duration of treatment. This will include the results of regression analyses identifying significant predictors of change in QoL during LT and the results of cluster analyses depicting three unique groups with implications for interventions.

Neuroplasticity in Spinal Cord Injury: Some Lessons Learned so Far #3889

DATE: 30 October **TIME:** 13:15 – 14:30

FACULTY: Keith E. Tansey, MD, PhD

DIAGNOSIS: Spinal Cord Injury

FOCUS AREA: Neuroplasticity

DESCRIPTION: The symposium will explore neuroplasticity after spinal cord injury. We will discuss anatomical and physiological substrates for plasticity and how plasticity can be measured in animal models or humans using anatomical techniques, imaging or neurophysiological methods. We will discuss how those methods could be used to localize plasticity post-injury, to monitor changes in it and to determine whether that plasticity can be modified so as to improve recovery (such as in gait) and/or diminish pathophysiology (such as with neuropathic pain or spasticity). Data from both animal models and human studies will be presented to illustrate these issues.

Measurement and Treatment of Sleep Disorders with Unexpected Outcomes in Veterans with Severe Brain Injury #3993

DATE: 30 October **TIME:** 13:15 – 14:30

FACULTY: Risa Nakase-Richardson, PhD;
Erin Holcomb;
Joel E. Kamper, Ph.D.;
Marc A. Silva, Ph.D.

DIAGNOSIS: Brain Injury, Technology

FOCUS AREA: Military

DESCRIPTION: Innovation in adjusting these technologies for use during acute rehabilitation is feasible and offers a way to more accurately characterize sleep dysfunction in early recovery. The purpose of this session to describe advances in measurement of sleep in TBI settings, enhance understanding of specific sleep disorders in recovery phases, and describe unexpected outcomes with treatment with a case series.

Preventing Falls, Injuries and Mobility Decline Among Older Adults: Translating Research Into Practice #4062

DATE: 30 October **TIME:** 13:15 – 14:30

FACULTY: Lorna Brown, DPT;
Jonathan F Bean, MD MPH MS

DIAGNOSIS: Other

FOCUS AREA: Geriatric

DESCRIPTION: This symposium will describe the scientific rationale for a multidisciplinary preventative care program targeting mobility problems among older primary care patients. The development and design of the Live Long Walk Strong program (LLWS), a clinical demonstration project targeting mobility problems among older primary care patients will be explained. Preliminary, unpublished results of LLWS with regard to participation and changes in physical function will be presented. Future initiatives based on lessons learned will be discussed.

The Science and Practice of LSVT BIG® and LSVT LOUD®: An Interdisciplinary Approach to Treating Parkinson Disease #4446

DATE: 30 October **TIME:** 13:15 – 14:30

FACULTY: Cynthia M. Fox, PhD, CCC-SLP;
Lorraine Ramig, Ph.D.;
Laura Guse, MPT, MSCS;
Erica Vitek;
Beth Marcoux, PT, DPT, PhD;
Jennifer Tuccitto, MPT;
Bernadette Kosir;
David H. McFarland, Ph.D.

DIAGNOSIS: Neurodegenerative Disease

FOCUS AREA: Neuroplasticity

DESCRIPTION: Many of the individuals diagnosed annually with PD are forced to retire prematurely, give up activities they enjoy, incur substantial medical costs, and endure their disabilities for decades (D’Ameilio et al., 2006). Providing innovative rehabilitation services that may slow or minimize progression of PD symptoms could result in individuals with PD maintaining productivity and improved quality of life, despite living out the rest of their life with a chronic disease.

Oral Presentation of Scientific Papers #1017

DATE: 30 October **TIME:** 13:15 – 14:30

FACULTY: James F Malec, PhD;
Alexandra T Landau, B.A.; Gale Whiteneck, PhD, FACRM;
Jennifer Bogner, PhD, ABPP, FACRM

*Separate registration required for all luncheons.

*Although significant changes are not anticipated, all schedules, sessions, and presenters posted on this website are subject to change.