2015 AAP ANNUAL MEETING
CREATING THE FUTURE OF ACADEMIC PHYSIATRY THROUGH MENTORSHIP, LEADERSHIP & DISCOVERY

ANNUAL MEETING PROGRAM
Earn a Maximum of 30 AMA PRA Category 1 Credits™
Follow us on Twitter for the latest #AAP2015 updates @AAPhysiatrists
Browse sessions, speakers and access presentation files and handouts: physiatry.org/AAP2015
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**Scan QR Code to:**
- Browse sessions, descriptions, & speakers
- Access presentation files & handouts
- Create a personalized itinerary
IMPORTANT SCHEDULES

ATTENDEE & EXHIBITOR REGISTRATION
FLOOR 4 | TEXAS BALLROOM FOYER

Tuesday, March 10 ............................................. 10:00 am – 3:00 pm
Wednesday, March 11 ...................................... 7:00 am – 5:00 pm
Thursday, March 12 ........................................... 7:00 am – 5:00 pm
Friday, March 13 ............................................... 7:00 am – 5:00 pm
Saturday, March 14 ............................................ 7:00 am – 11:00 am

EXHIBIT HALL
FLOOR 4 | TEXAS BALLROOM

Thursday, March 12 ........................................... 9:00 am – 7:30 pm
Morning coffee with Exhibitors ..................... 9:30 – 10:00 am
Lunch with Exhibitors ................................... 11:30 am – 12:30 pm
Afternoon refreshments with Exhibitors ......... 3:15 – 4:00 pm
President’s Welcome Reception ....................... 5:30 – 7:30 pm

Friday, March 13 ............................................... 9:00 am – 5:00 pm
Morning coffee with Exhibitors ..................... 9:30 – 10:00 am
Lunch with Exhibitors ................................... 12:00 – 1:00 pm
Afternoon refreshments with Exhibitors ......... 2:30 – 3:00 pm

Saturday, March 14 ............................................ 9:00 am – 12:00 pm
Morning coffee with Exhibitors ..................... 9:45 – 10:00 am
Refreshments with Exhibitors ....................... 11:30 am – 11:45 am

Come visit our exhibitors and learn about the latest products and services in physical medicine & rehabilitation! Complimentary lunch and refreshments breaks are offered to all registered attendees in the exhibit area.

POSTER VIEWING
FLOOR 4 | TEXAS BALLROOM

Thursday, March 12 ........................................... 9:00 am – 4:00 pm
Friday, March 13 ............................................... 9:00 am – 4:00 pm
See page 43 for poster board details

MESSAGE FROM THE PROGRAM CHAIR

We welcome you to San Antonio for the 2015 AAP Annual Meeting! This week at AAP 2015 leading physiatrists and academicians, in-training physiatrists, researchers, and academic PM&R professionals will come together to share the latest information, innovative techniques, best practices, and new technologies. Each AAP meeting generates an invigorating and collegial energy – this year, it will live in the hallways and meeting rooms of the Grand Hyatt San Antonio and will extend into AAP social events, restaurants, and along the Riverwalk.

AAP 2015 covers a broad spectrum of cutting edge topics in academic physiatry. The meeting is packed with educational activities including educational sessions, cutting-edge keynote and plenary sessions, hands on workshops, and scientific paper presentations along with over 400 poster board presentations showcasing the finest scientific innovations and research.

It is one of our goals to facilitate achieving success in physiatry through open collaboration and mentorship. We encourage you to participate in all aspects of the meeting including oral paper and poster board presentations to support, encourage and provide feedback regarding the authors’ important work.

I’d like to extend a special thank you to the AAP Program Committee and this year’s course directors. Without the hard work of such dedicated physiatrists and academicians, much of what we do would not be possible.

Finally, we want to thank our sponsors and exhibitors that help us to provide an excellent experience to our attendees. Please visit with them to learn about how they are advancing the practice of PM&R through innovative products, medicine, and services.

Thank you for joining us this year and adding to the energy. We look forward to your participation in AAP 2015 and hope you find your meeting experiences to be both rewarding and productive.

Anne Felicia Ambrose, MD, MS
AAP, Program Committee Chair
GENERAL INFORMATION

REGISTRATION
All attendees must pick up their name badge at the registration desk located in the foyer outside the Texas Ballroom during the designated hours prior to attending any Annual Meeting activities. Please plan accordingly.

CONNECT
Stay connected to AAP Annual Meeting updates on Twitter @AAPhysiatrists (#AAP2015). Use our Twitter feed to tell us (and others!) what you’re doing during the meeting and to connect with speakers, planners, and attendees. Reminders and updates will be sent through the feeds as well. We’re on Facebook, too! Like our page and get AAP Annual Meeting updates throughout the meeting.

Twitter – @AAPhysiatrists
Facebook – Association of Academic Physiatrists

MOBILE SCHEDULE BUILDER
Maximize your Annual Meeting experience by using our interactive mobile event app. Create a customized meeting schedule, browse sessions and speakers, view floor plans, and more. Open your browser and type physiatry.org/AAP2015 or scan the QR code on page 2.

PRESENTATIONS & HANDOUTS
Additional information about a session or exhibitor, including handouts, slides, brochures, audio and video files will all be linked to appropriate sessions on the event app for you to access from both mobile and desktop/laptop computer platforms.

INTERNET ACCESS
Wireless internet access sponsored by Mayo Clinic will be available through the AAP meeting space free of charge to 2015 AAP Annual Meeting participants for personal online access.

Passcode: mayoclinic

COMPLIMENTARY PROFESSIONAL HEADSHOTS
Is your LinkedIn, Twitter, Facebook, or practice profile picture from the 80s? Stop by the Exhibit Hall and have a professional headshot taken.

ADA STATEMENT
AAP Annual Meetings are ADA compliant. We strive to take the appropriate steps required to ensure that no individual with a disability is excluded, denied services, segregated, or otherwise treated differently. All requests for special accommodations under ADA must be made allowing enough time for evaluation and appropriate action by AAP.

ATTIRE
Semi-casual business attire is suggested for the AAP Annual Meeting. We suggest you dress comfortably and have a sweater or jacket available in case you find the meeting rooms cold.

RECORDING & CELL PHONE POLICY
Recording any presentation or session (oral or poster) by any means (photographing, audio taping, and video taping) is prohibited except by an AAP authorized agent for official purposes or by first authors who want to photograph their own poster presentations. The recording of sessions by attendees with disabilities is considered to be a reasonable accommodation. A session presenter makes oral presentations in various formats and for attendees who find it difficult to handwrite notes or make notations in a personal laptop computer, recording of oral or visual presentations is an allowable reasonable alternative. Cell phone use in sessions is prohibited. Please turn off all cell phones and pagers prior to entering a session room. Please use the rear entrance to exit a session if you must take or make a call.

PHOTOGRAPH / VIDEO POLICY
By registering and participating in the AAP Annual Meeting, meeting registrants grant to the AAP, its representatives, and employees the right to take photographs and videos of the attendee participating in the Annual Meeting. It is agreed that AAP may use such photographs of registrants with or without the registrant’s name and for any lawful purpose, including (for example) publicity, illustration, advertising, and web content.

CONCIERGE
The Grand Hyatt San Antonio has concierge professionals located in the lobby of the hotel who can provide assistance in planning your visits to all area attractions. The concierge can also help with restaurant reservations, special requests, and anything else that will make your visit to San Antonio enjoyable.
We are building a team that will place Vanderbilt on the national and international stage for Physical Medicine and Rehabilitation, creating an environment that will provide our patients excellent care while our students, residents and faculty are empowered to conduct outstanding research. We are seeking talented board-certified Physiatrists for the new Department of PM&R at Vanderbilt University Medical Center. We offer an outstanding environment with competitive benefits, salary and entrepreneurial atmosphere in the heart of Nashville, Tennessee. With the opening of the Department at Vanderbilt and Stallworth Rehabilitation Hospital, there are many opportunities for physiatrists interested in inpatient and outpatient rehabilitation including pain and musculoskeletal medicine. Join us in growing one of the top medical and research centers in the United States. Be part of a team that has consistently achieved top ratings in NIH research funding, Thomson Reuters Top Hospitals, and the U.S. News & World Report “Honor Roll.”

INTERESTED CANDIDATES SHOULD CONTACT:

Walter Frontera, M.D., Ph.D.  
Professor and Chairman, Physical Medicine and Rehabilitation  
2201 Children’s Way, Suite 1318  
Nashville, Tennessee 37212 | (615) 322-7578 | (615) 322-7830 (fax)  
walter.frontera@vanderbilt.edu
CONTINUING MEDICAL EDUCATION (CME) CREDIT
This activity has been planned and implemented in accordance with the Essentials and Standards of the Accreditation Council for Continuing Medical Education (ACCME). The Association of Academic Physiatrists is accredited by the ACCME to provide continuing medical education for physicians and takes responsibility for the content, quality and scientific integrity of this CME activity. The Association of Academic Physiatrists designates this live activity for a maximum of 31.0 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity. Note: CME is not applicable for resident, fellow and medical student educational sessions, or administrative director educational programming.

EVALUATION AND EDUCATIONAL CERTIFICATES
2015 AAP Annual Meeting CME & Evaluations will be accepted online only. Visit www.physiatry.org/CME2015 at the computer kiosks by the registration area, or via your preferred device during or after the meeting to complete evaluations, claim education credit, and print your CME certificate. CME credits submitted from the 2015 AAP Annual Meeting by AAP members will be electronically submitted to the American Board of Physical Medicine and Rehabilitation (ABPMR) prior to June 30, 2015. There will be a $25 fee for participants who claim CME after June 30, 2015.

DISCLOSURE INFORMATION
AAP FINANCIAL CONFLICT OF INTEREST DISCLOSURE POLICY
As an organization accredited by the ACCME, the Association of Academic Physiatrists must ensure balance, independence, objectivity and scientific rigor in all its activities. The establishment of uniform disclosure requirements frees individuals from having to decide which relationships might influence his or her decision-making and which are irrelevant; transparent disclosure allows the audience to participate in the interpretation of the significance. All individuals participating in an AAP-sponsored CME activity, including the AAP Board of Trustees, Program Committee and all authors and faculty speaking at the Annual Meeting have been required to provide complete disclosure of all potential conflicts of interest.

Participants are expected to disclose to the audience all financial interests or other relationships with any commercial interest that occurred within the past 12 months. Financial interests or other relationships may include: grants or research support, employee, consultant, major stockholder, member of the speaker’s bureau, etc. Disclosure information will be made available visually on a PowerPoint® slide before each presentation, in this Final Program and on the 2015 AAP Annual Meeting website. It should also be noted that audience members who volunteer questions or statements during symposia, focused discussions, or other educational events should disclose their own conflicts to the assembled group before proceeding with their comments. The disclosures included on page 50 are current as of February 15, 2015. Disclosure information will also be available on the screen in the session room during each speaker’s presentation.

PROGRAM COMMITTEE STATEMENT ON RESOLUTION OF CONFLICT OF INTEREST IN PRESENTATIONS
The intent of this disclosure is to ensure that all conflicts of interest, if any, have been identified and have been resolved prior to the speaker’s presentation. By doing so, the AAP has determined that the speaker’s or author’s interests or relationships have not influenced the presentation with regard to exposition or conclusion; nor does the AAP view the existence of these interests or commitments as necessarily implying bias or decreasing the value of the presentation.

FDA DISCLOSURE
In accordance with FDA and ACCME policies, AAP permits the discussion of off-label usage in CME activities so long as the off-label use of the drug or medical device is also specifically disclosed (i.e., it must be disclosed that FDA has not cleared the drug or device for the described purpose). Any drug or medical device is being used off label if the described use is not set forth on the product’s approval label. If a device or drug requiring FDA approval is identified as an important component of a presentation, the author must indicate the FDA status of those devices or drugs as Approved, Investigational or Not Approved for distribution within the United States. The FDA has stated it is the responsibility of the physician to determine the FDA status of each drug or device he or she wishes to use in clinical practice and to use these products in compliance with applicable law.

Share your expertise with 800 of your colleagues at AAP 2016. Submit your proposals and ideas by visiting www.physiatry.org/AAP2016.
ACKNOWLEDGEMENTS

Thank you to the AAP 2015 Program Committee, Course Directors, and Board of Trustees for their diligence and commitment to bring participants an outstanding educational program.

PROGRAM COMMITTEE

Anne Felicia Ambrose, MD, MS, Chair
Thiru M. Annaswamy, MD, MS
Samuel M. Bierner, MD, MRM
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Erik S. Brand, MD, MSc
Pablo Celnik, MD
Anthony E. Chiiodo, MD
Gary S. Clark, MD, CPE, MMM
Sara J. Cuccurullo, MD
Tammie Wiley-Rice
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Susan V. Garstang, MD
Nitin B. Jain, MD, MSPH
Emerald Lin, MD
Peter A.C. Lim, MD
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Jeffrey A. Strakowski, MD
Nancy E. Strauss, MD
Kevin R. Vincent, MD, PhD
Eric M. Wisotzky, MD
Mooyean Oh-Park, MD
Matthew B. Huish, MBA

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Christopher J. Garrison, MD, MBA
Samuel M. Bierner, MD
Erik S. Brand, MD, MSc
Joseph E. Herrera, DO
Christopher J. Visco, MD
Maya R. Therattil, MD
Nitin B. Jain, MD, MSPH
Emerald Lin, MD
Mooyean Oh-Park, MD
Justin T. Hata, MD
Vu Q.C. Nguyen, MD
Rita G. Hamilton, DO
Eric M. Wisotzky, MD
Gary S. Clark, MD, CPE, MMM
Michael L. Boninger, MD
John Whyte, MD
Tammie Wiley-Rice
Matthew B. Huish, MBA

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Danielle Perret Karimi, MD
AAMC Representative
Gerald Skoning, Esq
Public Member

8 | www.physiatry.org
The Rusk Award for Leadership and Innovation in PM&R honors a physician who has moved the field of physical medicine and rehabilitation forward with achievements notable for creativity and enhancing patient care.

**Nomination Deadline: March 31, 2015**

**Eligibility Criteria:**

- ✓ Must hold an M.D. or equivalent degree
- ✓ Board Certified in PM&R
- ✓ Self-nomination is not permitted; nomination from other faculty at your institution is permissible
- ✓ Must be available to deliver a lecture at the 2015 Rusk Rehabilitation 65th Anniversary Celebration in New York (June 11–13)

**Prize:** $2,500 honorarium and travel expenses

**Submission Process:** Please send nomination letter and CV to Linda Yuen-Moy by email: linda.yuen-moy@nyumc.org or postal mail: 240 E. 38th Street, 15th Floor, New York, NY 10016

The award will be presented at **Rusk Rehabilitation’s 65th anniversary,** taking place **June 11-13** at NYU Langone Medical Center in New York, NY.

The three-day event will include a research symposium, Rusk's residency graduation, a reception, and other social and professional networking opportunities.
# SCHEDULE AT A GLANCE

Browse the whole program on the free AAP 2015 APP [www.physiatry.org/AAP2015](http://www.physiatry.org/AAP2015)

<table>
<thead>
<tr>
<th>Tuesday, March 10, 2015</th>
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<tbody>
<tr>
<td>1:00 – 8:00 pm (Additional ticket required)</td>
<td>Residency &amp; Fellowship Program Directors (RFPD) Workshop, Dinner, &amp; Program - Lone Star F</td>
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<tr>
<td>1:00 – 5:00 pm (Additional ticket required)</td>
<td>Program Coordinator Workshop - Lone Star F</td>
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<th>Wednesday, March 11, 2015</th>
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<tr>
<td>8:00 – 12:00 pm (Additional ticket required)</td>
<td>Residency and Fellowship Program Directors (RFPD) Workshop - Lone Star F</td>
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<tr>
<td>1:00 – 5:00 pm (Additional ticket required)</td>
<td>Program Coordinators Workshop - Travis A</td>
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<tr>
<td>8:00 – 5:00 pm</td>
<td>Residents, Fellows &amp; Medical Students Workshop - Lone Star D</td>
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<tr>
<td>5:30 – 7:00 pm</td>
<td>AAP FELLOWSHIP &amp; JOB FAIR - Texas Ballroom Foyer</td>
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<tr>
<td>6:30 – 10:00 pm</td>
<td>Chair Council &amp; Administrative Directors Council Dinner and Program - Bonham C</td>
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<th>Thursday, March 12, 2015</th>
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<tr>
<td>7:00 – 8:00 am</td>
<td>Networking breakfast for all registered attendees - Texas Ballroom</td>
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<tr>
<td>8:00 – 9:30 am</td>
<td>OPENING PLENARY SESSION - Texas A featuring James T. McDeavitt, MD, MPH and Susan J. Harkema, PhD</td>
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<tr>
<td>9:30 – 10:00 am</td>
<td>Coffee with the exhibitors and poster presenters - Texas Ballroom</td>
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<tr>
<td>10:00 – 11:30 am</td>
<td>Educational Sessions - Various – see page 13</td>
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<tr>
<td>11:30 – 12:30 pm</td>
<td>Networking lunch for all registered attendees - Texas Ballroom</td>
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<tr>
<td>12:30 – 2:00 pm</td>
<td>Educational Sessions - Various – see page 13</td>
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<tr>
<td>2:00 – 3:15 pm</td>
<td>Scientific Paper Presentations - Various – see page 20</td>
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<td>3:15 – 4:00 pm</td>
<td>Poster Tours – expert guided tours of key posters in the Poster Hall - Texas Ballroom</td>
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<td>4:00 – 5:30 pm</td>
<td>Educational Sessions - Various – see page 13</td>
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<tr>
<td>5:30 – 7:00 pm</td>
<td>PRESIDENT’S WELCOME RECEPTION - Texas Ballroom</td>
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<td>7:00 – 8:00 am</td>
<td>Networking breakfast for all registered attendees - Texas Ballroom</td>
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<td>8:00 – 9:30 am</td>
<td>Educational Sessions - Various – see page 13</td>
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<tr>
<td>9:30 – 10:00 am</td>
<td>Coffee with the exhibitors and poster presenters - Texas Ballroom</td>
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<tr>
<td>10:00 – 10:15 am</td>
<td>AAP Awards Ceremony - Texas A</td>
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<tr>
<td>10:15 – 11:00 am</td>
<td>PLENARY SESSION featuring AAP President, Kathryn A. Stolp, MD - Texas A</td>
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<td>11:00 – 12:00 am</td>
<td>The Electrode Store Best Paper Presentations - Texas A</td>
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<tr>
<td>12:00 – 1:00 pm</td>
<td>Networking lunch for all registered attendees - Texas Ballroom</td>
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<tr>
<td>12:00 – 1:00 pm</td>
<td>Research Grantsmanship Program with Lunch - Bonham C</td>
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<tr>
<td>1:00 – 2:30 pm</td>
<td>Educational Sessions - Various – see page 13</td>
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<tr>
<td>2:30 – 3:00 pm</td>
<td>Coffee with the exhibitors and poster presenters - Texas Ballroom</td>
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<tr>
<td>3:00 – 4:30 pm</td>
<td>Educational Sessions - Various – see page 13</td>
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<tr>
<td>4:30 – 5:30 pm</td>
<td>Poster Grand Rounds - Texas A</td>
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<th>Saturday, March 14, 2015</th>
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<tr>
<td>7:00 – 8:15 am</td>
<td>Breakfast and AAP General Business Session - Texas Ballroom</td>
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<tr>
<td>8:15 – 9:00 am</td>
<td>RMSTP Paper Presentations - Travis A/B</td>
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<tr>
<td>9:00 – 9:45 am</td>
<td>PLENARY SESSION featuring Marc Nivet, EdD, MBA - Texas A</td>
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<tr>
<td>9:45 – 10:00 am</td>
<td>Coffee with the exhibitors - Texas Ballroom</td>
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<tr>
<td>10:15 – 1:30 pm</td>
<td>Educational Sessions - Various – see page 13</td>
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The Department of Physical Medicine and Rehabilitation at the University of Pennsylvania is devoted to the diagnosis, treatment and prevention of all types of disabilities. We are the oldest program of its kind in the country, having pioneered the most essential treatments and technological advancements for rehabilitation medicine, and continue to push the boundaries of optimal outcomes for our patients.

Penn Physical Medicine and Rehabilitation delivers the highest quality of rehabilitation care for patients with disabling disorders. As an integral part of Penn Medicine and the Hospital of the University of Pennsylvania — a consistently top ranked hospital by U.S. News & World Report — we provide comprehensive rehabilitative treatment at multiple Penn Medicine locations throughout the continuum of care.

Join Penn Physical Medicine and Rehabilitation

As a growing department, we are seeking physiatrists and researchers who bring enthusiasm, a passion for excellence, and strong clinical skills to join the Department of Physical Medicine and Rehabilitation team at Penn Medicine.

For more information about faculty opportunities, clinical programs or our research, please contact:

Timothy R. Dillingham, MD, MS
Chair, Department of Physical Medicine and Rehabilitation
Chief Medical Officer and Physiatrist-in-Chief, Good Shepherd Penn Partners
215.893.2645

Reinventing Musculoskeletal Treatment

With the opening of the Penn Musculoskeletal Center, a whole new way of delivering musculoskeletal care has arrived.

The Center brings clinicians together from numerous specialties, including physical medicine and rehabilitation, orthopaedics, rheumatology, pain medicine, and musculoskeletal radiology. This team-based model of care creates a seamless, integrated patient experience and the most efficient process of diagnosis, treatment and rehabilitation.
OVERVIEW OF EDUCATIONAL & NETWORKING ACTIVITIES

Preconference Workshops
Tuesday, March 10 – Wednesday, March 11, 2015
AAP offers focused preconference workshops for Residency and Fellowship Program Directors, Program Coordinators, and Residents, Fellows and Medical Students.

Poster and Paper Presentations
Thursday, March 12 – Friday, March 13, 2015
Contemporary PM&R research is presented by physicians on Thursday and Friday in the Poster Hall. Authors will be available to discuss their work during dedicated poster viewing times. The finest research studies submitted to AAP are highlighted during Poster Tours, Poster Grand Rounds, and Scientific Paper Presentations.

Plenary Sessions
FLOOR 4 | TEXAS A
Thursday, March 12 – Saturday, March 14, 2015
AAP plenary sessions are intended for a large audience and feature exciting invited speakers and pertinent PM&R research paper presentations.

Social & Networking Events
Thursday, March 12 – Friday, March 13, 2015
AAP promotes networking, mentorship, and open collaboration throughout the meeting with a variety of social and networking events including a President’s Welcome Reception, fellowship & job fair, council dinners, special interest receptions, and networking meals. AAP provides all registered attendees complimentary breakfast, lunch, and refreshments.

BRODY SCHOOL OF MEDICINE
Department of Physical Medicine and Rehabilitation

Bringing a better quality of life to eastern North Carolina through excellence in physical rehabilitation, medical education, and research.

www.ecu.edu/rehab
252-847-6600
Educational Sessions
Thursday, March 12 – Saturday, March 14, 2015
AAP educational sessions include presentations, panels, and Q&A. 2015 educational sessions are grouped in six (6) tracks and arranged in uniform blocks of time so that the audience can easily jump tracks to design a customized agenda to best meet the needs of the individual learner.

**Track A1: Electronic & Social Media in PM&R**
FLOOR 3 | BONHAM E
Course Directors: Christopher J. Garrison, MD, MBA; Samuel M. Bierner, MD
There is an increasing use of Electronic and Social Media in research, medical education, patient care, and dissemination of health care information. Learn how to maximize the use, avoid the pitfalls, and explore the future of these applications.

**Track A2: Fundamentals & Applications of International Classification of Functioning, Disability and Health (ICF)**
FLOOR 3 | BONHAM E
Course Directors: Maya R. Therattil, MD; Nitin B. Jain, MD, MSPH
Explore the domains of the International Classification of Functioning, Disability, and Health (ICF) and discuss applications of the ICF including outcomes research, resident education, and integration into practices.

**Track B1: Occupational Rehabilitation for Injured Workers: It’s Not as Hard as You Think**
FLOOR 3 | PRESIDIO B / C
Course Directors: Justin T. Hata, MD; Vu Q.C. Nguyen, MD
Describe how patients with disabilities can return to work by synthesizing knowledge from quantitative evidence about interventions that have been found to be effective in improving return-to-work and stay-at-home outcomes in workers with cognitive, physical, or behavioral impairments.

**Track B2: Practical Exercise Prescription**
FLOOR 3 | PRESIDIO B / C
Course Director: Erik S. Brand, MD, MSc
Learn how to integrate exercise into practice and develop appropriate prescriptions that considers the patients’ health status, impairments, nutritional intake, abilities, preferences, and resources. Discuss strategies for improving exercise adherence.

**Track C1: Integrating Ultrasound in Education and Research**
FLOOR 2 | LONE STAR E
Course Directors: Joseph E. Herrera, DO; Christopher J. Visco, MD
Explore the use of ultrasound in medical education and research, at the medical school, resident, and post-residency levels.

**Track C2: Neuroplasticity and Regenerative Medicine: Research to Clinical Practice**
FLOOR 2 | LONE STAR E
Course Directors: Emerald Lin, MD; Mooyeon Oh-Park, MD
Neuroplasticity and regeneration are the basis for resiliency of the neural and musculoskeletal systems, providing the foundation for repair, regrowth, and functional adaptation to injury. Learn about the latest advances in neuroplasticity and regenerative medicine from basic and clinical research to evidence-based and patient-centered clinical practice.

**Administrative Directors Track – PM&R Administration**
FLOOR 3 | BONHAM B
Course Director: Matthew B. Huish, MBA
Discuss critical and timely topics specific to academically based PM&R programs.

**Program for Academic Leadership (PAL)**
FLOOR 2 | LONE STAR F
Course Directors: Gary S. Clark, MD, CPE, MMM; Michael O’Dell, MD
PAL is a 3-year program to develop leadership skills in junior PM&R faculty.

**Rehabilitation Medicine Scientist Training Program (RMSTP)**
FLOOR 4 | SEQUIN & CROCKETT D
RMSTP offers NIH-funded research training fellowships at competitive salaries to selected individuals to study with a nationally prominent mentor. PGY2 and PGY3 residents and academic faculty members are invited to attend a research training workshop at the AAP Annual Meeting.

**Program Coordinators**
FLOOR 4 | CROCKETT B
RESIDENCY & FELLOWSHIP PROGRAM DIRECTORS (RFPD) & PROGRAM COORDINATORS WORKSHOP

FLOOR 2 | LONE STAR F
Workshop Director: Rita G. Hamilton, DO
Target Audience: PM&R program directors, fellowship directors, residency coordinators, and physicians engaged in teaching
Educational Level: Comprehensive
Educational Method: Lecture, Forum, Workshop

TUESDAY, MARCH 10, 2015

RFPD Workshop (4.5 CME)

1:00 – 2:15 pm
Accreditation Council for Graduate Medicine Education (ACGME) / Resident Review Committee (RRC)
Gerard E. Francisco, MD
Caroline Fischer, MBA, Review Committee for PM&R

2:15 – 3:15 pm
American Board of Physical Medicine and Rehabilitation (ABPMR)
Gary S. Clark, MD, CPE, MMM

3:15 – 3:30 pm
Refreshment Break

3:30 – 4:15 pm
Resident Recruitment
Michael F. Saulino, MD, PhD

4:15 – 5:00 pm
Faculty Development in Using the Milestones: Video Examples
Susan V. Garstang, MD; Karen Patricia Barr, MD

Business Meetings

5:00 – 5:30 pm
RFPD Council Business Meeting

8:30 – 9:00 pm
Medical Student Educators Council Business Meeting

Dinner

6:00 – 7:00 pm
RFPD & Medical Student Educators Council Dinner
FLOOR 3 | TRAVIS A / B
Additional ticket required

RFPD & Medical Student Educators Program (1.5 CME)

7:00 – 8:30 pm
Update on the AAMC Efforts Addressing the Needs of People with Disability
Program Director: Nethra Ankal, MD
(1) Become aware of efforts at the national level to recruit more people with disabilities as physicians. (2) Understand technical standards that may act as barriers to medical schools. (3) Discuss innovative ideas for amending technical standards to allow for people with disabilities to enter medical school. (4) Discuss options for inserting curriculum into medical schools to improve medical student awareness of the issues of patients with disabilities.

WEDNESDAY, MARCH 11, 2015

RFPD Workshop Continues (4.0 CME)

FLOOR 2 | LONE STAR F
8:00 – 8:45 am
Milestones Workshop
Eric Holmboe, MD, ACGME

8:45 am – 12:00 pm
Maximizing the Utility of Milestones and Assessments for Competency-based Medical Education
Eric Holmboe, MD, ACGME

Programs Coordinators Workshop Continues

FLOOR 3 | TRAVIS A
Following the conclusion of the joint RFPD / Program Coordinators Workshop, Program Coordinators only will reconvene.

1:00 – 4:30 pm
Coordinators 101 & Coordinator Round Table
Stacey Snead-Peterson
Cindy Weber
**RESIDENTS / FELLOWS / MEDICAL STUDENTS WORKSHOP**

**Performing Arts Medicine for Every Physiatrist**

**FLOOR 2 | LONE STAR D**

**Workshop Directors:** Eric M. Wisotzky, MD; James Wyss, MD, PT

**Target Audience:** Residents, Fellows and Medical Students

**Educational Level:** Comprehensive

**Educational Method:** Lecture, Forum, Workshop

**Description:** This full day workshop will introduce PM&R residents and fellows to core principles of treating performing artists. Lectures will present common functional impairments faced by artists and strategies for assessment and treatment. This will be presented in both a didactic and hands-on format. Dance medicine workshops will allow the learner to practice a live assessment of performers. These will be conducted by physiatrists who have great experience as both practitioners of dance medicine as well as being performers themselves. In addition, other hands-on workshops will include ultrasound, electrodagnosis, foot / ankle physical examination, as well as plain film imaging. There will also be lecture on developing critical career development skills.

**Objectives:**
1. Identify common functional disorders in performing artists.
3. Perform a hands-on functional analysis of the performing artists

### WEDNESDAY, MARCH 11, 2015

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<td><strong>8:15 – 9:00 am</strong></td>
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<td><strong>Dance Medicine</strong></td>
<td>VIP Medicine</td>
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<td>Lauren Elson, MD</td>
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<td><strong>9:15 – 10:00 am</strong></td>
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<td><strong>10:00 am – 12:00 pm Workshops</strong></td>
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<td>Bryan Murtaugh, MD; Joanne Borg Stein, MD; Jason De Luigi, MD; Adam Pourcho, DO</td>
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<td><strong>Ultrasound</strong></td>
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<td>Rex Ma, MD; Jake Sellon, MD; Jonathan Kirschner, MD; Bryan Murtaugh, MD;</td>
<td>Christian Custodio, MD; Mary Anne Mikneveich, MD; Jeff</td>
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<td>Joanne Borg Stein, MD; Jason De Luigi, DO; Adam Pourcho, DO</td>
<td>Strakowski, MD; David Cheng, MD; Richard Chang, MD;</td>
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<td>Rajat Mathur, MD</td>
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<td><strong>EMG</strong></td>
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<td>David Cheng, MD; Richard Chong, MD; Rajat Mathur, MD</td>
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<td><strong>Workshop Lunch</strong></td>
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<td><strong>12:00 – 1:00 pm</strong></td>
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<td><strong>Note:</strong> CME is not applicable for resident educational sessions</td>
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**In kind support for this workshop provided by:**
Cadwell, FujiFilm Sonosite, and Terason.
With government payers moving toward value purchasing, provider payment (reimbursement) models will be based on achieving predetermined quality metrics, meaningful use measures, and Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) scores. Accordingly, many departments are considering putting at “risk” a percentage of the provider salary by aligning such to achieving the mandated benchmark targets. Most current compensation models have been primarily based upon clinical productivity. Aligning provider compensation to quality, clinical and academic mission targets is challenging. Variables affecting provider reimbursement, tools to measure productivity and financial models to address this gap and implementation strategies will be discussed. Chairs are interested in also addressing incentives for Providers to be productive not only in the clinical mission, but in the research, teaching and service/citizenship missions of AMCs. All of this needs to be considered in Provider compensation going forward.

**WEDNESDAY, MARCH 11, 2015**

**Dinner**

6:30 – 7:30 pm  
Additional ticket required  
Chair Council Dinner  
FLOOR 3 | BONHAM E  
Administrative Directors Council Dinner  
Additional ticket required  
FLOOR 3 | BONHAM C  

**Business Meeting**

7:30 – 8:00 pm  
Chair Council Business Meeting

**Program (2 CME)**

8:00 – 8:30 pm  
New Realities of Physician Compensation Models: Incentive and / or Withholds Around Quality, Clinical, and Academic Mission Targets  
**Program Director:** Janis Orlowski, MD, MACP, Chief Operating Officer/Chief Medical Officer  
objective (1) lower cases for physician compensation models. (2) replace with: Review the results of a survey that was sent out to all PM&R Departments prior to the AAP Annual Meeting. (3) Identify benchmarks that will affect provider compensation by the payer industry (private and public).

**8:30 – 9:15 pm**  
Physician Compensation Plan / Model Cases Studies  
(1) Provide descriptions / details of various physician compensation models in practice around the country. (2) Explore incentive plans or withholds based on business indexes (access, patient satisfaction, quality (infections, falls, communications, pain control, readmissions, etc.) and academic mission (research, teaching, and service / citizenship).

**9:15 – 10:00 pm**  
Panel Q&A and Group Discussion  

Not a member of AAP?  
PM&R Department Chairs and PM&R Administrative or Finance Directors can join the AAP and begin participating in these active councils immediately by visiting www.physiatry.org/join or scan the QR code.
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MONDAY MORNING: TEN LITTLE THINGS

Dr. James McDeavitt, a recognized leader in educational, research and clinical programs, was named chair of the Department of Physical Medicine and Rehabilitation at Baylor College of Medicine effective January 1, 2014. Shortly thereafter, he also assumed responsibility for clinical business development for the college. Dr. McDeavitt came to Baylor from the Carolinas Health System where he led a substantial expansion of the academic mission of that organization. Dr. McDeavitt received his medical degree from the Bowman Gray School of Medicine in Wake Forest University and, following a year of medical missionary work in rural Guatemala, completed his residency training in PM&R at Thomas Jefferson University Hospital in Philadelphia, where he served as Chief resident.

Description: Health care in the United States is in a period of transformational change. Given the magnitude and complexity of the change, it is easy to be overwhelmed by the challenge faced by physicians and rehabilitation professionals. In this presentation, major reform dynamics will be summarized and used as a context for practical things health care leaders can do today to prepare for the future. The “ten little things” are relatively simple actions you can start on Monday morning to better position yourself and your organization for the future.

Thursday, March 12, 8:45 – 9:30 am

REAWAKENING LIMBS: ADVANCES IN STIMULATION AND LOCOMOTOR TRAINING FOLLOWING SPINAL CORD INJURY

Dr. Susan Harkema, is professor, rehabilitation research director of the University of Louisville’s Kentucky Spinal Cord Injury Research Center and the director of research at Frazier Rehab Institute. She is also the director of the Christopher and Dana Reeve Foundation’s Neurorecovery Network. Dr. Harkema came to University of Louisville from UCLA where she was an assistant professor in the department of neurology and the Brain Research Institute. A graduate of Michigan State University, Dr. Harkema earned her BS and PhD in physiology and completed a postdoctoral fellowship in neurology at the University of California, LA.

Description: Dr. Harkema’s research is focused on understanding neural mechanisms responsible for human locomotion and the level of plasticity – or the ability to change and recover – after neurologic injury. She and her colleagues have developed an intervention called locomotor training that reteaches walking by providing sensory cues the neural circuitry of the spinal cord recognizes and promotes better muscle patterns for walking. The results of these studies contribute to the knowledge about the fundamental mechanisms that control human location; this may provide strategies physiatrists can use for walking rehabilitation after neurological injury occurs.
AAP PRESIDENTIAL ADDRESS

Dr. Kathryn Stolp is Associate Professor of Physical Medicine and Rehabilitation, and has been at Mayo Clinic Rochester since 1991 with joint appointments in the departments of PM&R and Neurology. She served as PM&R department chair for eight years, as the Director of the Mayo Clinic Spinal Cord Injury Program, Mayo PM&R residency program director, and as Associate Dean in the Mayo School for Graduate Medical Education. She is presently the Medical Director for the Doctorate in Physical Therapy Program, Mayo School of Health Systems. She is former president of the American Association of Neuromuscular and Electrodiagnostic Medicine and is currently chair of the American Board of Electrodiagnostic Medicine. Her research interests include healthcare costs for the disabled, spasticity management, and neuromuscular disease. Dr. Stolp received her MD degree from the University of Minnesota and trained in PM&R residency followed by a fellowship in Neuromuscular Disease and Electromyography at the University of Michigan. She also received a Masters of Science degree in Clinical Research Design and Experimental Analysis from the University of Michigan's School of Public Health.

Description: Dr. Stolp is the current President of the Association of Academic Physiatrists. Her Presidential Address will touch on AAP's history, describe the changes that have occurred to date, and share AAP's vision for the future of academic physiatry.

DIVERSITY AND INCLUSION IN ACADEMIC MEDICINE: FROM FAIRNESS TO EXCELLENCE

Marc Nivet joined the American Association of Medical Colleges (AAMC) in June as chief diversity officer. In that role, Mr. Nivet provides strategic vision for all the AAMC’s diversity and inclusion activities and leads the association’s diversity policy and programs department, which focuses on programs designed to increase diversity in medical education and advance health care equity. Mr. Nivet has dedicated his career to improving higher education by creating and supporting initiatives that increase diversity. As the associate executive director of the Associated Medical Schools of New York for seven years, he oversaw programs designed to increase enrollment and retention of minority students in the health professions. Most recently, Mr. Nivet served as chief operating officer of the Josiah Macy, Jr. Foundation, where he oversaw day-to-day operations of the foundation and managed an endowment of $150 million. The foundation supports programs designed to improve the education of health professionals in the interest of public health.

Description: It is an exciting time for diversity in academic medicine. A growing appreciation for diversity and inclusion as drivers of excellence is coupled with the charge of building and sustaining the capacity to positively affect health care for all. Realizing these goals requires engaging individuals with different perspectives, skills, and experiences. In particular, a broader concept of diversity and a climate of inclusion is essential for institutions to move from the paradigm of recruitment and retention to one of attraction and thriving. This presentation will focus on the evolution of diversity paradigms and the importance of building capacity for academic medicine to move diversity from the periphery to the core of the institution to advance health equity.
Faculty Category Winner - John-Ross (JR) Rizzo, MD

**The Kinematics of Post-stroke Reaching: Understanding Motor Planning Deficits**

Dr. Rizzo is a physician scientist at NYU Langone Medical Center’s Rusk Rehabilitation, where he is an Assistant Professor of Physical Medicine and Rehabilitation. He leads the newly formed Visuomotor Integration Laboratory (VMIL) where his team focuses on eye-hand coordination as it relates to acquired brain injury (ABI). He has recently completed an R03 through the National Institute of Aging (NIA) focusing his research goals on eye-hand coordination in stroke and the elderly stroke and was just accepted into the RMSTP’s Phase I Program for their K12 award.

Dr. Rizzo started his career as an undergraduate at New York University, where he graduated with honors in Neuroscience. He then completed medical school on scholarship at New York Medical College and was elected to the Alpha Omega Alpha Honor's Society Iota Chapter. He did not travel far and completed residency, including a chief year, at NYULMC’s PM&R Program. Subsequently, he was awarded funding from the NYULMC’s Clinical and Translational Science Institute (CTSI) to complete a clinical research fellowship at Rusk through their Physician Scientist Training Program (PSTP).

Fellow Category Winner – Saeed Alzahb, MD

**Maximal Ventilation Limits Increased Aerobic Capacity with Hybrid Functional Electrical Stimulation Exercise Training in High Spinal Cord Injury**

Dr. Alzahb is a Postdoctoral Research Fellow at Spaulding Hospital / Harvard Medical School. His primary clinical and research interest is spinal cord injury (SCI) rehabilitation. This includes optimizing health care utilization and interventions for improved health and quality of life, specifically exercise interventions such as hybrid functional electrical stimulation rowing. Dr. Alzahb received his undergraduate degree and medical training from King Saud University College of Medicine in Saudi Arabia.

Resident Category Winner – Jessica I. Ziebarth, MD

**Impact of Early Mobility on Length of Stay in the Acute Care Hospital Setting**

Dr. Ziebarth is a fourth-year Physical Medicine and Rehabilitation resident at the University of Pittsburgh Medical Center. Following graduation from Texas Christian University, she completed her medical degree at Lake Erie College of Osteopathic Medicine in Erie, Pennsylvania. Her research interests include outpatient care for patients with spinal cord injuries, heterotopic ossification in patients with lower limb amputations, and early mobility in hospitalized and critically ill patients. After graduation from residency, Dr. Ziebarth will pursue a career in general physiatry.

Medical Student Category Winner – Michael C. Lysek

**Oxidative Stress in a Porcine Model of Spinal Cord Injury**

Michael is a 2nd year medical student at University of Alabama School of Medicine at Birmingham.

**RMSTP PAPER PRESENTATIONS**

**Saturday, March 14, 8:15 – 9:00 am**

Description: The Rehabilitation Medicine Scientist Training Program (RMSTP) provides research training, mentorship and career development support for those physiatrists committed to developing productive careers in academic medicine and research. The ultimate aim of the RMSTP is to increase the number of rigorously trained, extramurally competitive and scientifically productive faculty members in Physical Medicine and Rehabilitation (PM&R) departments, who can contribute to the continued development of physiatric research specifically and rehabilitation science in general. Current RMSTP Participants will share their most recent research endeavors.

- **Association of Vitamin D levels with gross motor function in people with ALS**
  *Sabrina Paganoni, MD, PhD*

- **Ganciclovir induced SR39 Thymidine Kinase Cell Suicide, Fact or Fiction?**
  *Nanette Joyce, DO*

- **Muscle impedance as a Therapeutic Biomarker of Spinal Muscular Atrophy**
  *W. David Arnold, MD*
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KentuckyOne Health’s Frazier Rehab Institute has earned national recognition as one of the top rehab institutions in the region. And, in 2011, University of Louisville and the Frazier Rehab Institute were awarded a multimillion-dollar grant to establish a model system for spinal cord injury. We also have over 20 convenient state-of-the-art outpatient facilities with extensive specialty rehab programs, highly skilled therapists, and innovative techniques.

To find a location near you, visit KentuckyOneHealth.org/FrazierRehab
Breakfast
7:00 – 8:00 am
FLOOR 4 | TEXAS BALLROOM
Networking Breakfast

7:00 – 8:00 am
New Member Breakfast
New AAP Members and first-time Annual Meeting attendees are invited to join the AAP Membership Committee for a Welcome Breakfast.
(1) Learn the ins and outs of the AAP Annual Meeting from experienced meeting goers. (2) Network with your colleagues and make valuable new connections. (3) Discover the benefits included in your AAP membership. (4) Enjoy breakfast and door prizes before heading off to the opening Plenary Session!

Plenary Session (1.5 CME)
FLOOR 4 | TEXAS A
8:00 – 8:45 am
Monday Morning: Ten Little Things
James T. McDeavitt, MD
(1) Summarize major trends in health care reform. (2) From the perspective of rehabilitation medicine, articulate the difference between the “DRG-driven reform” of the 1980’s and the “Value-based reform” of the 2010’s. (3) Develop at least one concrete action, for immediate implementation, to prepare for the future. This action may relate to personal development, organizational cultural preparation or logistical preparation.

8:45 – 9:30 am
Reawakening Limbs: Advances in Stimulation and Locomotor Training Following Spinal Cord Injury
Susan J. Harkema, PhD
(1) Discuss the role that activity-dependent plasticity plays in recovery. (2) Describe case studies of patients who have been tested with epidural stimulators. (3) Explore the barriers and benefits of locomotor research translation to clinical relevance.

Poster & Exhibitor Showcase
9:30 – 10:00 am
FLOOR 4 | TEXAS BALLROOM
Coffee with the authors and exhibitors.

Educational Sessions (1.5 CME) - choose one
10:00 – 11:30 am
Social Media Connections in Academia
James T. McDeavitt, MD
Track A1: Electronic and Social Media in PM&R
FLOOR 3 | BONHAM E
(1) Describe how use of social media technologies create collaborations within and between academic departments. (2) Discuss how clinical and academic processes spread within and between academic departments. (3) Compare the processes and time needed to spread academic initiatives before and after the advent of social media.

Occupational Rehabilitation: Why, How and What to Teach in a PM&R Residency
Russell Gelfman, MD, MS
James J. Hill III, MD, MPH
Robert D. Rondinelli, MD, PhD
Track B1: Occupational Rehabilitation for Injured Workers
FLOOR 3 | PRESIDIO B / C
(1) Review the similarities between PM&R and occupational medicine, the decline in occupational medicine residency programs, and the need to teach other specialists about occupational medicine. (2) Compare and contrast Program Requirements and Milestones between PM&R and preventive (Occupational) medicine. (3) Identify areas where clinical and research aspects of Occupational & Environmental medicine can be integrated in a PM&R curriculum. (4) Review the principles, terminology, and definitions of disablement with attention to their specific applications to the processes of impairment rating and disability determinations for Workers’ Compensation.

Musculoskeletal Ultrasound: A Milestone Based Approach to Enhance the Education of Anatomy and Physical Exam
Arthur Jason De Luigi, DO
Eric M. Wisotzky, MD
Bryan Murtaugh, MD
Track C1: Integrating Ultrasound in Education and Research
FLOOR 2 | LONE STAR E
(1) Define the benefits of musculoskeletal ultrasound in the education of the musculoskeletal system. (2) Integrate musculoskeletal ultrasound into residency education to assist in the milestone base education. (3) Describe normal neuromusculoskeletal tissue and differentiate to pathologic findings.
A Fresh Start Solution to Implementing a Post-Acute Care (PAC) Strategy
Administrative Directors Track: PM&R Administration
FLOOR 3 | BONHAM B
(1) Recognize why having a PAC strategy now is a “must.”
(2) Identify the provider components required in creating a full continuum PAC strategy.
(3) Understand the principle steps in forming a PAC continuing care network.
(4) Define the elements of a value proposition your organization can use to attract PAC-CNN members and the requirements those members must meet to participate in your network.

Medical Student Information Roundtable
10:00 – 11:30 am
FLOOR 2 | LONE STAR E
This is an opportunity for medical students to ask questions and discuss our field with current residents representing a number of programs.

Networking Lunch
11:30 am – 12:30 pm
FLOOR 4 | TEXAS BALLROOM
Have lunch, network with colleagues, and visit with exhibitors.

Educational Sessions (1.5 CME) - choose one
12:30 – 2:00 pm
Using Social Media in Research: A Case Study of the Pilot Study “Identifying the Need for Supported Employment for Working Age Stroke Survivors”
Elizabeth A. Apple, MBA
John Humphreys, MS
Vu Q.C. Nguyen, MD
Track A1: Electronic and Social Media in PM&R
FLOOR 3 | BONHAM E
(1) Execute a research project using social media to advertise for and procure research subjects. (2) Implement an online survey to collect the data and download the data into SAS for statistically analyzing the data. (3) Explain how to maximize the use of social media for gathering research information and identify and reduce the pitfalls of using social media and survey monkey in research.

Impairment Rating and Independent Medical Examination
Robert D. Rondinelli, MD, PhD
Track B1: Occupational Rehabilitation for Injured Workers
FLOOR 3 | PRESIDIO B / C
(1) Recognize the preferred rating method and apply the appropriate procedural guides to rating permanent impairment for Workers’ Compensation claims settlement. (2) Identify the two major changes for the AMA Guides to the Evaluation of Permanent Impairment, and explain their importance to PM&R. (3) Define and list four key components of Independent Medical Examination. (4) Compare and contrast the following terms: medical possibility vs. probability; exacerbation vs. aggravation; causality vs. apportionment; work ability vs. restrictions; permanency.

Ultrasound Elastography: Research and Clinical Applications for Real-Time Measurements of Muscle Mechanical Properties
Joline E. Brandenburg, MD
Pengfei Song, PhD
Dallas Kingsbury, MD
Track C1: Integrating Ultrasound in Education and Research
FLOOR 2 | LONE STAR E
(1) Recognize gaps in current knowledge and research techniques for clinical musculoskeletal research and describe the general principles of Ultrasound Elastography. (2) Summarize the strengths and limitations of differing Ultrasound Elastography techniques for evaluating muscle. (3) Discuss research and clinical applications of Ultrasound Elastography for measuring muscle.

New Business Opportunities Including Prosthetics and Orthotics
Linda Grosh, MHA, CPA
Kirk Roden, MBA, FACHE
Administrative Directors Track: PM&R Administration
FLOOR 3 | BONHAM B
(1) Discuss new business opportunities in rehabilitation medicine. (2) Understand the start-up costs, operations, and success factors involved in a new line of business. (3) Evaluate financial modeling to assess return on investment of new business.

Scientific Paper Presentations (1.25 CME)
2:00 – 3:15 pm
Learn about the most recent and finest research studies submitted for presentation at AAP 2015 by participating in this interactive oral platform presentation session. Choose from four (4) different topic areas. See page 42 for details.
Bundled Payments – Lessons Learned / Post Acute Strategy

2:00 – 3:15 pm
Kathleen A. Mullaly
Administrative Directors Track – PM&R Administration
FLOOR 3 | BONHAM B
(1) Understand how the Innovation Center, created by the Affordable Care Act, has been tasked with creative payment and service delivery models that have the potential to reduce Medicare, Medicaid or Children’s Health Insurance Program (CHIP) expenditures.  (2) Identify various characteristics of the four bundled models.  (3) Learn how to model (financially and clinically) your practice to ensure success under episodes of care.

Poster Tours / Exhibitor Showcase

3:15 – 4:00 pm
FLOOR 4 | TEXAS BALLROOM
The AAP Program Committee will offer Poster Tours of select poster board presentations to help highlight key posters and facilitate discussion on a more direct and informal level. Please meet by the Poster Hall entrance in the Exhibit Hall at 3:15pm to enjoy refreshments and select your expert tour guide.

Educational Sessions (1.5 CME) - choose one

4:00 – 5:30 pm

Communication Safety in a High Tech World
Tim Gueramy, MD
Track A1: Electronic and Social Media in PM&R
FLOOR 3 | BONHAM E
(1) Describe how the use of new digital communication technologies can improve the safety of patient care.  (2) List the advantages of digital communication technologies in expediting urgent / emergent care.  (3) Explain how new digital communication technologies facilitate collaboration among clinicians.

The Role of Ultrasound in the EMG Laboratory
Andrea J. Boon, MD
Jeffrey A. Strommen, MD
Track C1: Integrating Ultrasound in Education and Research
FLOOR 2 | LONE STAR E
(1) List two nerve conduction studies where ultrasound visualization of the nerve can improve the quality of the study.  (2) Recite two patient factors that could make accurate needle EMG placement more difficult.  (3) Identify the diaphragm on a sonogram of the chest wall.  (4) Recognize three high risk muscles in which EMG needle placement is safer using real time ultrasound guidance.

Health Care Reform Update
Leighton Chan, MD, MPH
Administrative Directors Track: PM&R Administration
FLOOR 3 | BONHAM B
(1) Discuss key change factors occurring in health care reform and their impact on rehabilitation medicine.  (2) Identify strategic sources to access for tracking impending changes and their potential implications on core business.  (3) Evaluate your status relative to reform initiatives.  (4) Consider a strategic plan for new opportunities.

Fellowship Panel

4:00 – 5:00 pm
FLOOR 4 | LONE STAR D
Fellows representing a multitude of fellowship specialties will discuss everything from the application to interview trail to what it’s really like to be a fellow!

Chief Resident Town Hall

5:00 – 6:00 pm
FLOOR 4 | LONE STAR D
An open forum for Chief Residents from across the country to discuss their different experiences and give advice to others in their leadership roles.

President’s Reception

5:30 – 7:30 pm
FLOOR 4 | TEXAS BALLROOM
Welcome to San Antonio! Come kick off the 2015 AAP Annual Meeting with a cocktail, hors d’oeuvres, and good conversation with attendees and exhibitors alike. All registered attendees are welcome to attend.
As a nationally ranked leader in research and clinical care, the Department of Physical Medicine and Rehabilitation at UPMC is proud to be celebrating its 15th anniversary. We are a top recipient of funding from the NIH and a top-ranked residency program, and we take seriously our commitment to educate the next generation of physicians and scientists. This year, we have two AAP award recipients, who are being recognized for their commitment to excellence in rehabilitation medicine. Prakash Jayabal, MD, PhD, is receiving the McLean National Outstanding Resident Award for his performance in academic leadership, teaching, education, and research. And Jessica Ziebarth, DO, is receiving the AAP 2015 Electrode Store Best Paper Award in the Resident category. To learn more about how we are leading the field in clinical care, research, and education, visit UPMCPhysicianResources.com/Rehab.
FRIDAY, MARCH 13, 2015

Breakfast

7:00 – 8:00 am
FLOOR 4 | TEXAS BALLROOM
Networking Breakfast

Educational Sessions (1.5 CME) - choose one

8:00 – 9:30 am

Educational Content Delivery Alternatives
Christopher J. Garrison, MD, MBA
Tim Gueramy, MD
James McDeavitt, MD
Track A1: Electronic and Social Media in PM&R
FLOOR 3 | BONHAM E
(1) List at least three new methods of delivering educational content using digital technologies. (2) Describe how new educational content delivery alternatives facilitate collaboration among and between learners and educators. (3) Characterize how educational content delivery alternatives concentrate expertise and improves access to clinical experts.

Early Intervention for Delayed Recovery
Russell Gelfman, MD, MS
Track B1: Occupational Rehabilitation for Injured Workers
FLOOR 3 | PRESIDIO B / C
(1) Discuss how to identify delayed recovery in the injured worker. (2) Compare the concepts of work conditioning and work hardening. (3) Develop an interdisciplinary program for early intervention.

Advances in Ultrasound Education and Application
David Spinner, DO
Joseph Herrera, DO
Track C1: Integrating Ultrasound in Education and Research
FLOOR 2 | LONE STAR E
(1) Develop strategies to implement ultrasound into anatomy education and the role of cadavers. (2) Describe the uses of ultrasound in education with regard to regenerative medicine. (3) Explain the use of an ultrasound workbook. (4) Review current technology and learning opportunities (Apps, web based learning, etc.)

Managing Innovation: Assistive Technology and Telemedicine
James Gardner, OTR/L
Administrative Directors Track: PM&R Administration
FLOOR 3 | BONHAM B
(1) Demonstrate 3 or more voice control adaptations for computers and phones and summarize the benefits and disadvantages of each type. (2) Explore the power and reach of telemedicine, for patient care and health system viability. Successful models will be presented and discussed, along with key success factors and challenges. (3) Understand and appreciate head control options for computer control and access which would be most beneficial for various patients. (4) Summarize and describe 4 or more uses of Bluetooth, switch control, and alternative access options for computer and phone accessibility for patient with higher level injury including 3 or more eye-gaze control adaptations for computers and phones.

Poster & Exhibitor Showcase

9:30 – 10:00 am
FLOOR 4 | TEXAS BALLROOM
Coffee with the authors and exhibitors.

Plenary Session (1.5 CME)

FLOOR 4 | TEXAS A

10:00 – 10:15 am
AAP Award Ceremony

10:15 – 11:00 am
Presidential Address
Kathryn A. Stolp, MD
(1) Discuss the history of AAP’s origination and development. (2) Outline the changes that have occurred to date. (3) Explore the AAP vision for the future of academic physiatry.

11:00 am – 12:00 pm
Electrode Store Best Paper Presentations
Winners of the Electrode Store Best Paper competition will present their papers in the Faculty, Fellow, Resident, and Medical Student categories.

11:00 am – 12:00 pm
Faculty Practice Solutions Center (FPSC) Benchmarking:
Creating and Developing Subspecialties in PM&R
David Troland
Will Dardani
Administrative Directors Track – PM&R Administration
FLOOR 3 | BONHAM B
**Lunch**

12:00 – 1:00 pm

**Networking Lunch**

FLOOR 4 | TEXAS BALLROOM

Have lunch, network with colleagues, and visit with exhibitors.

**Research Committee Program & Lunch: Training in Grantsmanship for Rehabilitation Research**

*Previous RSVP required*

Rick Segal, PT, PhD, FAPTA
David Morgenroth, MD

FLOOR 3 | PRESIDIO A

(1) Describe the organizational structure of the Training in Grantsmanship for Rehabilitation Research (TIGRR) workshop. (2) Describe the mentor and mentee process of TIGRR. (3) Identify the current state of the participant’s own research and whether TIGRR would be helpful in increasing changes of obtaining grant funding.

**Administrative Directors Lunch & Learn**

**Case Study in Cultural Mobility**

Erik Hoyer, MD
Geoffrey Hall, FACHE, MBA

FLOOR 3 | BONHAM B

(1) Describe a case study multi-year research project for early mobility intervention in rehabilitation potential patients. (2) Introduce clinical quality metrics and demonstrate results. (3) Document positive functional outcomes to benchmark criteria. (4) Explore the financial impact to an early mobility program and what it could mean to PM&R departments.

**Amantadine for Irritability and Aggression in TBI**

Flora Hammond, MD

FLOOR 4 | CROCKETT A

**Comprehensive Exercise Prescription**

Roger Mignosa, DO

**Track B2: Practical Exercise Prescription**

FLOOR 3 | PRESIDIO B / C

(1) Differentiate risk for the initiation of an exercise program. (2) Indicate appropriate testing required to begin an exercise program. (3) Describe the elements of an exercise prescription. (4) Identify the principles of training from progression, to overload, to specificity and more. (5) Explain the components of strength, flexibility, cardiovascular exercise and body awareness.

**Stroke Rehabilitation: Thinking Out of the Box**

John Chae, MD, ME
Richard Harvey, MD
Preeti Raghavan, MD

**Track C2: Neuroregeneration: Research, Knowledge and Translation to Clinical Practice**

FLOOR 2 | LONE STAR E

(1) Discuss recent advancements in the application of electrical stimulation in shoulder pain among stroke survivors. (2) Explain the role of neuromodulation in motor recovery post stroke. (3) Recognize the potential utilization of auditory stimulation (e.g. music) in stroke rehabilitation based on its impact on neuroplasticity.

**Value Based Purchasing – From Volume to Value**

Robert Pendleton, MD, FACP

**Administrative Directors Track – PM&R Administration**

FLOOR 3 | BONHAM B

(1) Describe the “value” imperative and associated drivers of current national health system performance. (2) Describe CMS value based purchasing payment and operational details, including measures, performance periods, performance standards, and domain weighting. (3) Review specific strategies to improve value at the system level. (4) Translate these strategies to clinical practice.

**Educational Sessions (1.5 CME) - choose one**

1:00 – 2:30 pm

**Introduction to ICF**

John Melvin, MD, MMSc
Elliott Roth, MD
Walter R. Frontera, MD, PhD

**Track A2: Fundamentals & Applications of International Classification of Functioning, Disability and Health (ICF)**

FLOOR 3 | BONHAM E

(1) Describe the different domains of ICF. (2) Indicate the need for use of ICF in the practice of PM&R. (3) Compare ICF to other available classifications and evidence for the same.

**Poster & Exhibitor Showcase**

2:15 – 3:00 pm

FLOOR 4 | TEXAS BALLROOM

Coffee with the authors and exhibitors.
**Educational Sessions (1.5 CME) - choose one**

**3:00 – 4:30 pm**

**Outcomes Research Within the Framework of ICF**
Manoj Sivan, MD  
John Melvin, MD, MMSc

**Track A2: Fundamentals & Applications of International Classification of Functioning, Disability and Health (ICF)**

**FLOOR 3 | BONHAM E**

(1) Apply ICF as a tool to measure outcomes in research. (2) Recognize the need for a reliable and validated rehabilitation outcomes measure. (3) Explain psychometric properties of ICF.

**Integrating Exercise into the Stroke Rehabilitation Program**
Vu Q.C. Nguyen, MD, MBA  
J. George Thomas, MD  
Tiffany Ford, MS, OTR/L  
Mary Beth Kerstein, MS, CCC-SLP

**Track B2: Practical Exercise Prescription**

**FLOOR 3 | PRESIDIO B / C**

(1) Distinguish the common stroke complications and deficits that contribute to functional and mobility impairment. (2) Review the current evidence behind therapeutic exercise and how to address stroke complications and deficits in the practice of stroke rehabilitation. (3) Examine emerging and promising approaches to integrate exercise into neuroplastic recruitment and training. (4) Delineate the optimal therapeutic exercise approach for various stroke complications and deficits.

**Spinal Cord Injury: Updates in Neuromodulation, Thought Control, and Clinical Trials**

Steve Kirshblum, MD  
Steve Williams, MD  
W. Jerry Mysiw, MD

**Track C2: Neuregeneration: Research, Knowledge and Translation to Clinical Practice**

**FLOOR 2 | LONE STAR E**

(1) Describe neuromodulation (e.g. spinal cord stimulation) for neural recovery after spinal cord injury. (2) Recognize the advances in brain machine interface and recent application and functional impact in patients with spinal cord injury. (3) Report the status of recent clinical trials based on basic research findings in rehabilitation of patients with spinal cord injury.

**Tracking Functional Outcomes Throughout the Continuum of Acute and Post-acute Rehabilitation Care**
Robert D. Rondinelli, MD, PhD  
Paulette M. Niewczyk, PhD, MPH

**Administrative Directors Track – PM&R Administration**

**FLOOR 3 | BONHAM B**

(1) Demonstrate the prospective application of simplified derivatives of Functional Independence Measure (FIM) to the assessment of functionality of stroke patients in the acute hospital setting, and in post-acute rehabilitative venues other than the Inpatient Rehabilitation Facility (IRF). (2) Apply these metrics as part of a uniform FIM-based functionality assessment for purposes of tracking rehabilitation outcomes for stroke patients throughout a post-acute continuum and while potentially utilizing multiple post-acute venues within an episode of care. (3) Illustrate the utility of this approach to the development of a patient-centered function-based risk-adjustment methodology used in acute hospitals and maintained in post-acute care to properly compare outcomes, cost and quality across venues, beginning at the first point of patient care.

**Poster Grand Rounds**

**4:30 – 5:00 pm**

**FLOOR 4 | TEXAS A**

Top scoring poster presentations will be highlighted by a moderator. Authors will present their research studies, and discussion and comments from the audience are encouraged. See page 43 for details.

**Resident / Fellow Council (RFC) Career Pearls & RFC ELECTIONS**

**4:00 – 6:00 pm**

**FLOOR 2 | LONE STAR E**

Leaders in PM&R share their experiences and career pearls. Stay for the RFC elections to vote for your AAP resident representatives.

**Poster Grand Rounds**

**4:30 – 5:00 pm**

**FLOOR 4 | TEXAS A**

Top scoring poster presentations will be highlighted by a moderator. Authors will present their research studies, and discussion and comments from the audience are encouraged. See page 43 for details.

**RESIDENT / FELLOW NETWORKING EVENT**

**8:00 – 12:00 am**

**PAT O’BRIEN’S RESTAURANT**

Replica of the New Orleans institution with Cajun fare, Hurricane cocktails & a dueling piano bar.

**Address:** 121 Alamo Plaza, San Antonio, TX 78205
Terason continues to develop the latest high-performance portable ultrasound systems. Our uSmart product line combines performance, exceptional imaging, advanced technology and functionality—all in a power-packed solution. Terason’s uSmart ultrasound systems set the standard of excellence and increase your productivity. See for yourself.

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**Breakfast**

7:00 – 8:15 am  
FLOOR 4 | TEXAS A / B  
Breakfast and AAP General Business Session

**Plenary Session (1.5 CME)**

8:15 – 9:00 am  
**Rehabilitation Medicine Scientist Training Program (RMSTP) Paper Presentations**  
FLOOR 3 | TRAVIS A / B  
RMSTP participants share their most recent research endeavors.

9:00 – 9:45 am  
**Diversity and Inclusion in Academic Medicine: From Fairness to Excellence**  
Marc A. Nivet, EdD, MBA  
FLOOR 4 | TEXAS A  
(1) Explore the evolution of diversity paradigms, from an issue of social justice to a driver of institutional excellence.  
(2) Connect diversity and inclusion to attraction and thriving of students and faculty.  
(3) Understand the value of diversity in improving quality of care.  
(4) Elevate the discourse around diversity and inclusion in academic medicine.

**Exhibitor Showcase**

9:45 – 10:15 am  
FLOOR 4 | TEXAS A / B  
Coffee with the exhibitors.

**Educational Sessions (1.5 CME) - choose one**

10:15 – 11:45 am  
**Using ICF to Enhance PM&R Resident and Medical Student Education: Why and How?**  
John L. Melvin, MD, MMSc  
Scott Campea, MD  
Nethra Ankanam, MD  
FLOOR 3 | BONHAM E  
(1) Describe why the ICF framework should be used to enhance PM&R resident and medical student Education.  
(2) Identify facilitators and barriers to using the ICF framework to support student and resident learning.  
(3) Formulate one sample learning goal that can be supported by utilizing the ICF framework.

**Prescribing Exercises for Cancer Patients**  
R. Samuel Mayer, MD  
Vishwa Raj, MD  
Brittany Lorden, OT  
Joanna Edekar, PT  
FLOOR 3 | PRESIDIO B / C  
(1) Explain the epidemiology and cost of cancer related disability.  
(2) Describe the evidence basis for cancer rehabilitation and pre-habilitation programs.  
(3) Identify key functional limitations in common cancer diagnoses.  
(4) Write rehabilitation prescriptions that address specific impairments and provide appropriate precautions.

**Traumatic Brain Injury: Stress, Neuroplasticity, and Recovery**  
Heechin Chae, MD  
Maulik Purohit, MD, MPH  
Emerald Lin, MD  
FLOOR 2 | LONE STAR E  
(1) Evaluate the possible causes of the 20% of the MTBI patients who do not improve or have a protracted recovery.  
(2) Explain the physiology and science of stress in MTBI injury and recovery.  
(3) Discuss the model of an outpatient medical home with interdisciplinary evaluation and treatment for best functional and medical outcomes.  
(4) Recognize and assess neuroimaging as an integral portion of diagnosis and a tool to assess neuroplasticity in recovery.

**Transforming Operational and Quality Discovery into Published Research**  
Pamela Roberts, PhD, CPHQ  
Richard Riggs, MD  
FLOOR 3 | BONHAM B  
(1) Identify the steps from taking an idea to a published article.  
(2) Increase awareness of the difference between quality findings / data and research.  
(3) Discuss the collaboration and strategies for translation of rehabilitation operational issues into published articles.

**Exhibitor Showcase**

11:45 am – 12:00 pm  
FLOOR 4 | TEXAS A / B  
Coffee with the exhibitors.
Gabi’s story. When Gabi was four years old, her world changed forever as she stumbled and cried out, “Mommy! My head hurts.” She quickly became unresponsive and the preschooler who loved running and climbing, now, couldn’t even walk. She had to relearn everything. The Physical Rehabilitation Center at the Children’s Hospital of San Antonio, the first of its kind in the city, is helping Gabi to maximize her level of function and prepare her to be as independent as possible. Today, Gabi is making big strides, one small step at a time. At the Children’s Hospital of San Antonio, our children will always be first.™

How does a four-year old walk away from a stroke?

We helped her one step at a time.
**Educational Sessions (1.5 CME) - choose one**

**12:00 – 1:30 pm**

**Integrating ICF into Your Research and Practice: Practical Tips**  
Nitin Jain, MD, MSPH  
Maya Therattil, MD  
Track A2: Fundamentals & Applications of International Classification of Functioning, Disability and Health (ICF)  
FLOOR 3 | BONHAM E  
(1) Use IFC in providing evidence based clinical care. (2) Prepare research grant proposals using IFC. (3) Design a research study using IFC as an outcome measure.

**How to Effectively Teach and Prescribe Foundational Strength Exercises**  
Jamia Erickson, Med, CSCS  
Karl Erickson, BSc, CSCS  
Track B2: Practical Exercise Prescription  
FLOOR 3 | PRESIDIO B / C  
(1) Identify essential universal human movement patterns for foundational strength development. (2) Express the benefits of movement preparation. (3) Recognize essential periodization concepts. (4) Develop strategies that encourage patient compliance.

**Musculoskeletal Medicine: Biologics, Regenerative Medicine and Aging**  
Steven Sampson, DO  
Prakash Jayabal, MD, PhD  
Jonathan Bean, MD, MPH  
Track C2: Neuroregeneration: Research, Knowledge and Translation to Clinical Practice  
FLOOR 2 | LONE STAR E  
(1) Differentiate types of regenerative medicine techniques including biologic: stem cell from adipose tissue and bone marrow sources, platelet rich plasma, and whole blood. (2) Compare methods of translating research into clinical practice to improve rehabilitation and outcomes for mobility in our aging population. (3) Evaluate the evidence base for current practices with regenerative medicine and the areas of need for future research.

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**Complete Evaluations & Claim CME**  
2015 Annual Meeting evaluations will be accepted online only. Visit www.physiatry.org/CME2015 or scan the QR code to complete evaluations, claim CME, and print your certificate.
The Wayne State University Department of Physical Medicine and Rehabilitation Oakwood Residency Program is accredited by the ACGME and was named the Clinical Program of the Year for 2012 by Oakwood Healthcare, Inc. The 14-bed specialty Oakwood Rehabilitation Trauma Unit at Oakwood Heritage Hospital in Taylor was designed for traumatic brain injury, spinal cord injury and neurological trauma patients. “We’ve been able to assemble a team that is both diverse as well as having the multiple complex specialties that may be involved in these patients in their continuum of care,” said Jay Meythaler, M.D., J.D., Program Chair and Director of the Rehabilitation Trauma Unit and member of the Wayne State University Physician Group. The program is one of the new PM&R programs that includes four resident slots per year at PGY-1 to PGY-4.

The residency program boasts of a full team of specialists, experts and leaders, including in the areas of amputee services, electrodiagnostic testing, geriatric rehabilitation, musculoskeletal disorders, neck and back pain, spasticity management services, spinal cord injuries, sports injuries, stroke rehabilitation, transplant rehabilitation and brain injury medicine. The program includes 24-7 physician coverage, 365 days per year, with high-quality faculty and staff utilizing state-of-the-art facilities, including all private rooms and same-floor CT, MRI and intensive care unit to provide the finest in research, teaching and patient care. Participating sites include Oakwood Hospital (Taylor, Dearborn), John D. Dingell VA Medical Center, and the Oakwood Center for Exceptional Families and Children.

The Brain Injury Medicine Fellowship focuses on the prevention of brain injury and evaluation, treatment, and rehabilitation of individuals with acquired brain injury. This fellowship program began in July 1, 2014 with the goal to provide basic to advanced knowledge and experience in the field of brain injury medicine. Each year the training plan is customized to individual fellow interests and builds on past medical experience. Over the course of twelve months, fellows will become familiar with clinical practice, treatment, and rehabilitation strategies in both inpatient and outpatient settings. In addition, there is a research component that emphasizes scholarship and ordinal contributions to the study of traumatic brain injury while reinforcing publication and presentation skills, as well as providing experience in the academic administrative aspects of Physical Medicine and Rehabilitation.
CONTRAINDICATIONS

XEOMIN is contraindicated in patients with a known hypersensitivity to the active substance botulinum toxin type A or to any of the components in the formulation and in the presence of infection at the proposed injection site(s), as injection could lead to severe local or disseminated infection.

WARNINGS AND PRECAUTIONS

- The potency units of XEOMIN are not interchangeable with other preparations of botulinum toxin products. Therefore, units of biological activity of XEOMIN cannot be compared to or converted into units of any other botulinum products.
- Hypersensitivity reactions have been reported with botulinum products (anaphylaxis, serum sickness, urticaria, soft tissue edema, and dyspnea). If serious and/or immediate hypersensitivity reactions occur further injection of XEOMIN should be discontinued and appropriate medical therapy immediately instituted.
- Treatment with XEOMIN and other botulinum toxin products can result in swallowing or breathing difficulties. Patients with pre-existing swallowing or breathing difficulties may be more susceptible to these complications. When distant effects occur, additional respiratory muscles may be involved. Patients may require immediate medical attention should they develop problems with swallowing, speech, or respiratory disorders. Dysphagia may persist for several months, which may require use of a feeding tube and aspiration may result from severe dysphagia [See Boxed Warning].
- Cervical Dystonia: Patients with smaller neck muscle mass and patients who require bilateral injections into the sternocleidomastoid muscles are at greater risk of dysphagia. Limiting the dose injected into the sternocleidomastoid muscle may decrease the occurrence of dysphagia.
- Blepharospasm: Injection of XEOMIN into the orbicularis oculi muscle may lead to reduced blinking and corneal exposure with possible ulceration or perforation. Lower lid injections should not be repeated if diplopia occurred with previous botulinum toxin injections.
- Individuals with peripheral motor neuropathic diseases, amyotrophic lateral sclerosis, or neuromuscular junctional disorders (e.g., myasthenia gravis or Lambert-Eaton syndrome) should be monitored particularly closely when given botulinum toxin. Patients with neuromuscular disorders may be at increased risk of clinically significant effects including severe dysphagia and respiratory compromise from typical doses of XEOMIN.
- XEOMIN contains human serum albumin. Based on effective donor screening and product manufacturing processes, it carries an extremely remote risk for transmission of viral diseases and Creutzfeldt-Jakob disease (CJD). No cases of transmission of viral diseases or CJD have ever been reported for albumin.

ADVERSE REACTIONS

Cervical Dystonia: The most commonly observed adverse reactions (incidence ≥10% of patients and twice the rate of placebo) for XEOMIN 120 Units and XEOMIN 240 Units, respectively, were: dysphagia (13%, 18%), neck pain (7%, 15%), muscle weakness (7%, 11%), and musculoskeletal pain (7%, 4%).

Blepharospasm: The most commonly observed adverse reactions (incidence ≥10% of patients and twice the rate of placebo) for XEOMIN were eyelid ptosis (19%), dry mouth (16%), visual impairment (12%), diarrhea (8%), and headache (7%).

DRUG INTERACTIONS

Concomitant treatment of XEOMIN and aminoglycoside antibiotics, spectinomycin, or other agents that interfere with neuromuscular transmission (e.g., tubocurarine-like agents), or muscle relaxants, should be observed closely because the effect of XEOMIN may be potentiated. The effect of administering different botulinum toxin products at the same time or within several months of each other is unknown. Excessive neuromuscular weakness may be exacerbated by administration of another botulinum toxin prior to the resolution of the effects of a previously administered botulinum toxin.

USE IN PREGNANCY

Pregnancy Category C: There are no adequate and well-controlled studies in pregnant women. XEOMIN should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Please see Brief Summary of Prescribing Information on following pages.
Your art, XEOMIN® science

Choose XEOMIN — a neurotoxin that has been used to treat nearly half a million patients worldwide.1

INDICATIONS AND USAGE
XEOMIN (incobotulinumtoxinA) for injection, for intramuscular use is indicated for the treatment of adults with:

• Cervical dystonia, to decrease the severity of abnormal head position and neck pain in both botulinum toxin-naïve and previously treated patients.

• Blepharospasm who were previously treated with onabotulinumtoxinA (Botox®).

IMPORTANT SAFETY INFORMATION

WARNING: DISTANT SPREAD OF TOXIN EFFECT
Postmarketing reports indicate that the effects of XEOMIN and all botulinum toxin products may spread from the area of injection to produce symptoms consistent with botulinum toxin effects. These may include asthenia, generalized muscle weakness, diplopia, blurred vision, ptosis, dysphagia, dysphonia, dysarthria, urinary incontinence and breathing difficulties. These symptoms have been reported hours to weeks after injection. Swallowing and breathing difficulties can be life threatening and there have been reports of death. The risk of symptoms is probably greatest in children treated for spasticity but symptoms can also occur in adults treated for spasticity and other conditions, particularly in those patients who have underlying conditions that would predispose them to these symptoms. In unapproved uses, including spasticity in children and adults, and in approved indications, cases of spread of effect have been reported at doses comparable to those used to treat cervical dystonia and at lower doses.

Important Safety Information continues on opposite page.
For more information, please visit www.XEOMIN.com.
XEOMIN (incobotulinumtoxinA) for injection, for intramuscular use. Visit www.XEOMIN.com for full prescribing information.

WARNING: DISTANT SPREAD OF TOXIN EFFECT
Postmarketing reports indicate that the effects of XEOMIN and all botulinum toxin products may spread from the area of injection to produce symptoms consistent with botulinum toxin effects. These may include: asthenia, generalized muscle weakness, diplopia, blurred vision, ptosis, dysphagia, dysphonia, dysarthria, urinary incontinence and breathing difficulties. These symptoms have been reported hours to weeks after injection. Swallowing and breathing difficulties can be life threatening and there have been reports of death. The risk of symptoms is probably greatest in children treated for spasticity but symptoms can also occur in adults treated for spasticity and other conditions, particularly in those patients who have underlying conditions that would predispose them to these symptoms. In unapproved uses, including spasticity in children and adults, and in approved indications, cases of spread of effect have been reported at doses comparable to those used to treat cervical dystonia and at lower doses (see Warnings and Precautions).

CONTRAINDICATIONS:
Hypersensitivity—Use in patients with a known hypersensitivity to the active substance botulinum neurotoxin type A, or to any of the excipients (human albumin, sucrose), could lead to a life-threatening allergic reaction. XEOMIN is contraindicated in patients with known hypersensitivity to any botulinum toxin preparation or to any of the components in the formulation (see Warnings and Precautions).

Infection at Injection Site—Use in patients with an infection at the injection site could lead to severe local or disseminated infection. XEOMIN is contraindicated in the presence of infection at the proposed injection site(s).

WARNINGS AND PRECAUTIONS:
Spread of Toxin Effect—Postmarketing safety data from XEOMIN and other approved botulinum toxins suggest that botulinum toxin effects may, in some cases, be observed beyond the site of local injection.

The symptoms are consistent with the mechanism of action of botulinum toxin and may include: asthenia, generalized muscle weakness, diplopia, blurred vision, ptosis, dysphagia, dysphonia, dysarthria, urinary incontinence, and breathing difficulties (see Boxed Warning above).

Lack of Interchangeability between Botulinum Toxin Products—The potency Units of XEOMIN are specific to the preparation and assay method utilized. They are not interchangeable with the other preparations of botulinum toxin products and, therefore, Units of biological activity of XEOMIN cannot be compared to or converted into Units of any other botulinum toxin products assessed with any other specific assay method.

Hypersensitivity Reactions—Hypersensitivity reactions have been reported with botulinum toxin products (anaphylaxis, serum sickness, urticaria, soft tissue edema, and dyspnea). If serious and/or immediate hypersensitivity reactions occur further injection of XEOMIN should be discontinued and appropriate medical therapy immediately instituted.

Dysphagia and Breathing Difficulties in Treatment of Cervical Dystonia—Treatment with XEOMIN and other botulinum toxin products can result in swallowing or breathing difficulties. Patients with pre-existing swallowing or breathing difficulties may be more susceptible to these complications. In most cases, this is a consequence of weakening of muscles in the area of injection that are involved in swallowing or breathing. When distant effects occur, additional respiratory muscles may be involved (see Warnings and Precautions). Deaths as a complication of severe dysphagia have been reported after treatment with botulinum toxin. Dysphagia may persist for several months, and require use of a feeding tube to maintain adequate nutrition and hydration. Aspiration may result from severe dysphagia and is a particular risk when treating patients in whom swallowing or respiratory function is already compromised. Treatment of cervical dystonia with botulinum toxins may weaken neck muscles that serve as accessory muscles of ventilation. This may result in critical loss of breathing capacity in patients with respiratory disorders who may have become dependent upon these accessory muscles. There have been post-marketing reports of serious breathing difficulties, including respiratory failure, in patients with cervical dystonia treated with botulinum toxin products. Patients with smaller neck muscle mass and patients who require bilateral injections into the sternocleidomastoid muscles have been reported to be at greater risk of dysphagia. In general, limiting the dose injected into the sternocleidomastoid muscle may decrease the occurrence of dysphagia. Patients treated with botulinum toxin may require immediate medical attention should they develop problems with swallowing, speech or respiratory disorders. These reactions can occur within hours to weeks after injection with botulinum toxin (see Warnings and Precautions and Adverse Reactions).

Pre-existing Neuromuscular Disorders and other Special Populations—Individuals with peripheral motor neuropathic diseases, amyotrophic lateral sclerosis, or neuromuscular junctional disorders (e.g., myasthenia gravis or Lambert-Eaton syndrome) should be monitored particularly closely when given botulinum toxin. Patients with neuromuscular disorders may be at increased risk of clinically significant effects including severe dysphagia and respiratory compromise from typical doses of XEOMIN (see Adverse Reactions).

Corneal Exposure, Corneal Ulceration, and Ectropion in Patients Treated with XEOMIN for Blepharospasm—Reduced blinking from injection of botulinum toxin products in the orbicularis muscle can lead to corneal exposure, persistent epithelial defect and corneal ulceration, especially in patients with VII nerve disorders. Careful testing of corneal sensation in eyes previously operated upon, avoidance of injection into the lower lid area to avoid ectropion, and vigorous treatment of any epithelial defect should be employed. This may require protective drops, ointment, therapeutic soft contact lenses, or closure of the eye by patching or other means. Because of its anticholinergic effects, XEOMIN should be used with caution in patients at risk of developing narrow angle glaucoma. To prevent ectropion, botulinum toxin products should not be injected into the medial lower eyelid area. Eschymosis easily occurs in the soft tissues of the eyelid. Immediate gentle pressure at the injection site can limit that risk.

Human Albumin and Transmission of Viral Diseases—This product contains albumin, a derivative of human blood. Based on effective donor screening and product manufacturing processes, it carries an extremely remote risk for transmission of viral diseases. A theoretical risk for transmission of Creutzfeldt-Jakob disease (CJD) is also considered extremely remote. No cases of transmission of viral diseases or CJD have ever been reported for albumin.

ADVERSE REACTIONS:
The following adverse reactions to XEOMIN are discussed in greater detail in other sections of the labeling:

Hypersensitivity (see Contraindications and Warnings and Precautions)
Dysphagia and Breathing Difficulties in Treatment of cervical dystonia (see Warnings and Precautions)
Spread of Effects from Toxin (see Warnings and Precautions)

Cervical Dystonia—In a placebo-controlled, Phase 3 trial in patients with cervical dystonia, 159 patients received XEOMIN. Common adverse events (≥5% in any XEOMIN treatment group) observed in patients who received XEOMIN (120 Units or 240 Units) included dysphagia, neck pain, muscle weakness, injection site pain, and musculoskeletal pain.

| Table 2: Most Common TEAEs (≥5%) and Greater than Placebo: Double-Blind Phase of Clinical Trial |
| System Organ Class | XEOMIN 120 Units | XEOMIN 240 Units | Placebo |
| Preferred Term | (N=77) | (N=82) | (N=74) |
| Any TEAEs | 57% | 55% | 42% |
| Musculoskeletal and connective tissue disorders | 23% | 32% | 11% |
| Neck pain | 7% | 15% | 4% |
| Muscular weakness | 7% | 11% | 1% |
| Musculoskeletal pain | 7% | 4% | 1% |
| Gastrointestinal disorders | 18% | 24% | 4% |
| Dysphagia | 13% | 18% | 3% |
| Nervous system disorders | 16% | 17% | 7% |
| General disorders | 16% | 11% | 11% |
| and administration site conditions |
| Injection site pain | 9% | 4% | 7% |
| Infections and infestations | 14% | 13% | 11% |
| Respiratory, thoracic and mediastinal disorders | 13% | 10% | 3% |

Blepharospasm—In the placebo-controlled Phase 3 trial in patients with blepharospasm previously treated with onabotulinumtoxinA (Botox), 74 patients received XEOMIN. The adverse events occurring in ≥25% of XEOMIN-treated patients and greater than placebo were eyelid ptosis, dry eye, dry mouth, diaper rash, headache, visual impairment, dyspnea, nasopharyngitis, and respiratory tract infection. No serious adverse events occurred in patients who received XEOMIN; one placebo-treated patient experienced a serious adverse event (dyspnea).
Table 3: Most Common TEAEs (≥5%) and Greater than Placebo: Double-Blind Phase of Clinical Trial

<table>
<thead>
<tr>
<th>System Organ Class</th>
<th>XEOMIN (N=74)</th>
<th>Placebo (N=35)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preferred Term</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subjects with TEAEs</td>
<td>70%</td>
<td>62%</td>
</tr>
<tr>
<td>Eye disorders</td>
<td>38%</td>
<td>21%</td>
</tr>
<tr>
<td>Eyelid ptosis</td>
<td>19%</td>
<td>9%</td>
</tr>
<tr>
<td>Dry eye</td>
<td>16%</td>
<td>12%</td>
</tr>
<tr>
<td>Visual impairment</td>
<td>12%</td>
<td>6%</td>
</tr>
<tr>
<td>Gastrointestinal disorders</td>
<td>30%</td>
<td>15%</td>
</tr>
<tr>
<td>Dry mouth</td>
<td>16%</td>
<td>2%</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>8%</td>
<td>-</td>
</tr>
<tr>
<td>Infections and infestations</td>
<td>20%</td>
<td>15%</td>
</tr>
<tr>
<td>Nasopharyngitis</td>
<td>5%</td>
<td>3%</td>
</tr>
<tr>
<td>Respiratory tract infection</td>
<td>5%</td>
<td>3%</td>
</tr>
<tr>
<td>Nervous system disorders</td>
<td>14%</td>
<td>5%</td>
</tr>
<tr>
<td>Headache</td>
<td>7%</td>
<td>2%</td>
</tr>
<tr>
<td>General disorders and administration site conditions</td>
<td>11%</td>
<td>9%</td>
</tr>
<tr>
<td>Respiratory, thoracic and mediastinal disorders</td>
<td>11%</td>
<td>3%</td>
</tr>
<tr>
<td>Dyspnoea</td>
<td>5%</td>
<td>3%</td>
</tr>
</tbody>
</table>

*Including vision blurred

**Immunogenicity**—As with all therapeutic proteins, there is a potential for immunogenicity.

**Postmarketing Experience**—The following adverse reactions have been reported during post-approval use with XEOMIN. Because these reactions are reported voluntarily from a population of uncertain size, it is not always possible to reliably estimate their frequency or establish a causal relationship to drug exposure: eye swelling, eyelid edema, dysphagia, nausea, flulike symptoms, injection site pain, injection site reaction, allergic dermatitis, localized allergic reactions like swelling, edema, erythema, pruritus or rash, herpes zoster, muscular weakness, muscle spasm, dysarthria, myalgia and hypersensitivity.

**DRUG INTERACTIONS**—No formal drug interaction studies have been conducted with XEOMIN. Co-administration of XEOMIN and amantadine or other agents interfering with neuromuscular transmission, e.g., tubocurarine-type muscle relaxants, should only be performed with caution as these agents may potentiate the effect of the toxin. Use of anticholinergic drugs after administration of XEOMIN may potentiate systemic anticholinergic effects. The effect of administering different botulinum toxin products at the same time or within several months of each other is unknown. Excessive neuromuscular weakness may be exacerbated by administration of another botulinum toxin prior to the resolution of the effects of a previously administered botulinum toxin. Excessive weakness may also be exaggerated by administration of a muscle relaxant before or after administration of XEOMIN.

**USE IN SPECIFIC POPULATIONS**—Pregnancy—Pregnancy Category C: There are no adequate and well-controlled studies in pregnant women. XEOMIN should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus. XEOMIN was embryotoxic in rats and increased abortions in rabbits when given at doses higher than the maximum recommended human dose (MRHD) for cervical dystonia (120 Units) on a body weight basis. When XEOMIN was administered intramuscularly to pregnant rats during organogenesis (3, 10, or 30 Units/kg on gestational days 6, 12, and 19; or 7 Units/kg on GDs 6 to 19; or 2, 5, or 18 Units/kg on GDs 6, 9, 12, 16, and 19), decreases in fetal body weight and skeletal ossification were observed at doses that were also maternally toxic. The no-effect level for embryotoxicity in rats was 6 Units/kg (3 times the MRHD for cervical dystonia on a body weight basis). Intramuscular administration to pregnant rabbits during organogenesis (1.25, 2.5, or 5.0 Units/kg on GDs 6, 18, and 28) resulted in an increased rate of abortion at the highest dose, which was also maternally toxic. In rabbits, the no-effect level for increased abortion was 2.5 Units/kg (similar to the MRHD for cervical dystonia on a body weight basis).

**Nursing Mothers**—It is not known whether botulinum toxin type A is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when XEOMIN is administered to a nursing woman.

**Pediatric Use**—Safety and effectiveness of XEOMIN in patients less than 18 years of age have not been established [see Warnings and Precautions].

**Geriatric Use**—Cervical Dystonia: In the Phase 3 study in cervical dystonia, 29 patients were older than 66 years of age, including 19 patients who received XEOMIN and 10 patients who received placebo. Of these, 10 (33%) XEOMIN-treated patients and four (40%) placebo-treated patients experienced an adverse event. For patients over 65 years of age treated with XEOMIN, the most common adverse events were dysphagia (4 patients, 21%), and asthenia (2 patients, 11%). One XEOMIN-treated patient (5%) experienced severe dizziness.

**Blepharospasm**—In the Phase 3 study in blepharospasm, 41 patients were older than 65 years of age, including 28 of 75 patients (37%) who received XEOMIN and 12 of 34 patients (35%) who received placebo. Of these patients, 22 of 29 (76%) XEOMIN-treated patients, compared with 7 of 12 (58%) placebo-treated patients, experienced an adverse event. One XEOMIN-treated patient experienced severe dysphagia.

**OVERDOSAGE**—Excessive doses of XEOMIN may be expected to produce neuromuscular weakness with a variety of symptoms. Respiratory support may be required where excessive doses cause paralysis of the respiratory muscles. If in the event of overdose, the patient should be medically monitored for symptoms of excessive muscle weakness or muscle paralysis [see Warnings and Precautions]. Symptomatic treatment may be necessary. Symptoms of overdose are not likely to be present immediately following injection. Should accidental injection or oral ingestion occur, the person should be medically supervised for several weeks for signs and symptoms of excessive muscle weakness or paralysis. There is no significant information regarding overdose from clinical studies in cervical dystonia and blepharospasm. In the event of overdose, antitoxin raised against botulinum toxin is available from the Centers for Disease Control and Prevention (CDC) in Atlanta, GA. However, the antitoxin will not reverse any botulinum toxin-induced effects already apparent by the time of antitoxin administration. In the event of suspected or actual cases of botulinum toxin poisoning, please contact your local or state Health Department to process a request for antitoxin through the CDC. If you do not receive a response within 30 minutes, please contact the CDC directly at 770-488-7100. More information can be obtained at http://www.cdc.gov/travel/antitoxin.html.

Please visit www.XEOMIN.com for full Prescribing Information.
Coordinators convene at the AAP Annual Meeting to gain knowledge on new regulations, changes, and updates. Information obtained from ACGME, ABPMR, and NRMP provide coordinators with pertinent details that have a great impact on their programs. Networking with colleagues from across the nation allows everyone to share ideas, practices, and other information to improve programs and documentation handling. Lectures presented by physicians provide the coordinators with an insight on how policies and practices are developed and how they filter into the individual residency programs. Coordinators are encouraged to join the Residency & Fellowship Program Directors (RFPD) preconference workshop and reconvene for the following program.

**PROGRAM COORDINATORS WORKSHOP**

**FLOOR 4 | CROCKETT B**

**Program Director:** Tammie Wiley-Rice  
**Target Audience:** Program Coordinators  
**Educational Level:** Comprehensive  
**Educational Method:** Lecture, Forum, Workshop

**Description:** Coordinators convene at the AAP Annual Meeting to gain knowledge on new regulations, changes, and updates. Information obtained from ACGME, ABPMR, and NRMP provide coordinators with pertinent details that have a great impact on their programs. Networking with colleagues from across the nation allows everyone to share ideas, practices, and other information to improve programs and documentation handling. Lectures presented by physicians provide the coordinators with an insight on how policies and practices are developed and how they filter into the individual residency programs. Coordinators are encouraged to join the Residency & Fellowship Program Directors (RFPD) preconference workshop and reconvene for the following program.

**THURSDAY, MARCH 12, 2015**

10:00 – 11:30 am  
**ERAS UPdate**  
Renee Overton

4:00 – 4:45 pm  
**Milestones - Professionalism**  
Michelle Brock, MA

12:30 – 1:15 pm  
**Program Evaluation Committee**  
J. Dennis Alfonso, MD

4:45 – 5:15 pm  
**AAP and TAGME Memberships**  
Cynthia Volak, C-TAGME

1:15 – 2:00 pm  
**Patient Safety**  
Lisa Hutcherson

5:15 – 5:30 pm  
**Farr Healthcare – Meet and Great**  
Linda Farr

**FRIDAY, MARCH 13, 2015**

8:00 – 9:30 am  
**Clinical Competency Committee**  
Gail A. Latlief, DO

1:30 – 2:15 pm  
**Milestones – Interpersonal Communication**  
Renata Korabiewski, MBA, HCM

12:45 – 1:30 pm  
**ABPMR**  
Kevin Randleman & Carmen Pitzen

3:00 – 4:30 pm  
**How to Set Up a Quality and Safety Curriculum in Your PM&R Residency Program**  
Parmod Mukhi, MD  
Michelle Brock, MA

**SATURDAY, MARCH 14, 2015**

10:00 – 11:30 am  
**Milestones – Patient Care**  
Elan Kirkland

11:45 am – 12:30 pm  
**Milestones – Practice-Based Learning and Improvement**  
Toni St. John

10:45 – 11:30 am  
**Milestones – Medical Knowledge**  
Tammie Wiley-Rice

12:30 – 1:30 pm  
**Q &A**
HARVARD MEDICAL SCHOOL DEPARTMENT OF PHYSICAL MEDICINE AND REHABILITATION
AND
SPAULDING REHABILITATION NETWORK

The Spaulding Rehabilitation Network is anchored by Spaulding Rehabilitation Hospital Boston, which is the only rehabilitation hospital in New England to be ranked by US News and World Report “Best Hospitals” survey list annually since 1995, and is the official teaching hospital of the Harvard Medical School Department of Physical Medicine and Rehabilitation.

Spaulding is one of only two providers nationally to be selected by The National Institute on Disability and Rehabilitation Research (NIDRR) to hold a Model System site distinction in three specialties:

- Traumatic Brain Injury
- Spinal Cord Injury
- Burn Injury

Spaulding Rehabilitation Hospital Boston offers comprehensive rehabilitation services in a brand new state-of-the-art hospital hailed for its LEED Gold Certification and advances in inclusive design. Through our network, patients have access to a full continuum of rehabilitative care, with 6 inpatient facilities and 23 outpatient centers. As part of Partners HealthCare, founded by Massachusetts General Hospital and Brigham and Women’s Hospital, Spaulding provides patients and caregivers with the knowledge and expertise of the entire system. This continuum of superb healthcare ensures that patients always find the exact care they need throughout their journey and the strength they need to live their lives to the fullest.

Areas of Expertise Include:

- Brain Injuries (traumatic, acquired)
- Burn
- Pediatrics
- Chronic Pain
- Musculoskeletal Rehabilitation
- Neuromuscular Medicine
- Spinal Cord Injuries and Disorders
- Sports Medicine
- Stroke
- Amputee and Vascular Disease
- Disorders of Consciousness

For more information please visit: www.spauldingrehab.org
CONCURRENT PROGRAMS

Program for Academic Leadership (PAL)
FLOOR 2 | LONE STAR F
Electronic Residency Application Service (ERAS) Update is a three-year program to develop academic leadership skills in junior PM&R faculty. The goal of PAL is to provide a basic administrative framework and skill set to promising physiatric faculty in order to enhance their leadership abilities within a department, medical school, and the field of PM&R at large. This program requires candidates to attend the PAL course during each of three consecutive AAP Annual Meetings. Over the three years, the content covers department administration, teaching and education, and research. Applications for PAL are due in September each year. Visit the AAP website at www.physiatry.org for more details.

Rehabilitation Medicine Scientist Training Program (RMSTP)
FLOOR 3 | SEGUIN & CROCKETT D
Become tomorrow’s rehabilitation researchers. Join the Rehabilitation Medicine Scientist Training Program. Where is the evidence base for rehabilitation treatments? How can we support the value of rehabilitation with payers and policy makers? Rehabilitation research is the key, and well-trained rehabilitation are needed for the job! RMSTP offers NIH-funded research training fellowships at competitive salaries to selected individuals to study with a nationally prominent mentor of their choice for up to 3 years. The goal of the program is to train a cohort of physiatric researchers – focusing on both adult and pediatric rehabilitation topics – who can compete successfully for NIH and other research funds, and who can contribute original research to the advancement of the field. PGY2 and PGY3 residents, and academic faculty members within 5 years of completing their training, are invited to attend a research training workshop held at the AAP Annual Meeting, to help prepare for the funding RMSTP fellowship. Applications for the research training workshop are due December 1, 2015. Applications for the NIH-funded fellowships are due September 1st of each year. For more information visit the AAP website at www.physiatry.org, or contact the Program Coordinator for the RMSTP, Mary Czerniak at meczerni@einstein.edu or (215) 663-6592.
Gerard E. Francisco (Professor and Chairman; Chief Medical Officer, TIRR Memorial Hermann; Director, TIRR NeuroRecovery Research Center)

Victor H. Chang (Vice-Chair, Clinical Affairs, Patient Safety and Quality; Clinical Director, Brain Injury and Stroke, Medical Director, Case Management TIRR Memorial Hermann)

Joel E. Frontera (Residency Program Director and Vice-Chair, Education)

TIRR Memorial Hermann and Memorial Hermann TMC
Corwin Boake (Neuropsychology)
Glenda Bosques - Pediatric Rehabilitation Medicine
Victor H. Chang - Director (Clinical), Brain Injury and Stroke
Matthew E. Davis - Director (Clinical), Spinal Cord Medicine
Christopher Falco - Brain Injury Medicine
Gerard E. Francisco - Chief Medical Officer
Joel E. Frontera - Spinal Cord Medicine
Carolina Gutierrez - Cancer Rehabilitation
Nneka Ifejika (adjunct) - Director, Neurorehabilitation
Mansi Jhaveri - Stroke Rehabilitation
William M. Jones (adjunct) - Sports Medicine
Prathap Jacob Joseph - Director, Specialty Programs and International Relations
Sheng Li - Stroke Rehabilitation and Spasticity Management
Elaine Magat - Co-Director, Outpatient Medical Clinic
Suzanne Manzi - Pain Medicine
Danielle Melton - Director, Amputee Program
Argyrios Stampas - Director (Research), Spinal Cord Medicine
Monica Verduzco-Gutierrez - Co-Director, Outpatient Medical Clinic

Memorial Hermann The Woodlands
Monica Crump - Director, Inpatient Rehabilitation
Charito Go

Memorial Hermann Southwest
Anand Allam - Director, Inpatient Rehabilitation

Memorial Hermann Northwest
Richard A. Huang - Director, Inpatient Rehabilitation

Memorial Hermann Health Solutions
Ahmed Khalifa - Occupational and Musculoskeletal Medicine

Shriners Hospital and Children’s Memorial Hermann
Glenda Bosques

Harris Health LBJ General Hospital
Judy Thomas - Chief of PM&R

Center for Healthy Aging
Mark Wilde - Neuropsychology

Kelsey Seybold
Ahmed Sewielam (adjunct) - Pain Medicine

The NeuroRecovery Research Center
Gerard E. Francisco — Center Director

Center for MyoNeural Engineering
Ping Zhou - Director
Xiaoyan Li
Henry Shin
Le Li

Rehabilitation Robotics
Nuray Yozbatiran
Vanessa Bernal
Marcie K. O’Malley (adjunct)

Neural Interfaces and Neuromodulation
Nuray Yozbatiran
Zafer Keser
Jose L. Contreras-Vidal (adjunct)

Center For Wearable Exoskeletons
Shuo-Hsiu (James) Chang
Ruta Paranjape

Neurorehabilitation
Sheng Li - Director
Shengai Li

Administration
Kirk S. Roden - Director of Management Operations
Diane Nguyen - Administrative Services Officer
Kathy Brown - Education Coordinator
Tammy Jefferson - Grants Program Manager

William H. Donovan - Founding Chairman
SCIENTIFIC PAPER RESEARCH PRESENTATIONS
Thursday, March 12, 2015: 2:00 – 3:00 pm

GROUP A
FLOOR 4 | REPUBLIC A
2:00 – 2:20 pm: A novel non-pharmacological intervention – BreESTim for neuropathic pain management after spinal cord injury – Sheng Li, MD, PhD
2:20 – 2:40 pm: Does Electrodiagnostic Confirmation of Acute or Chronic Cervical or Lumbosacral Radiculopathy Predict Pain Reduction after Transforaminal Epidural Steroid Injection? A Multicenter Longitudinal Study – Zachary McCormick, MD
2:40 – 3:00 pm: Intraarticular Triamcinolone versus Hyaluronate Injections for Lumbar Zygaphyseal Joint Arthropathy: A Pragmatic, Double Blind Randomized Controlled Trial – Thiru M. Annaswamy, MD, MA
3:00 – 3:15 pm: The Effects of Integrating a Physiatrist into an Acute Stroke Team – Lisa Foster, MD

GROUP B
FLOOR 3 | BONHAM D
2:00 – 2:15 pm: Females and Those with Higher PCSS Scores are More Likely to be Prescribed Medications for Treatment of Concussion – Shanti Pinto, MD
2:15 – 2:30 pm: Expectations of recovery after brain damage: a pilot study – Ny-Ying Lam, MD
2:30 – 2:45 pm: Potential benefits and feasibility of a web-based intervention for mTBI in adolescents: a pilot study – Brad G. Kurowski, MD, MS
2:45 – 3:00 pm: Apolipoprotein e4 Allele as a Predictor for Long Term Executive Function Outcomes after Pediatric Traumatic Brain Injury (TBI) – Krista Reiling, BS
3:00 – 3:15 pm: Effects of the Interactive Mobile Health and Rehabilitation (iMHere) Smartphone Application System on the Self-Management and Functional and Psychosocial Outcomes of Individuals with Spina Bifida – Andrew McCoy, BS

GROUP C
FLOOR 3 | TRAVIS A
2:00 – 2:15 pm: Procurement of power wheelchair seat elevators and association with mobility and transfers: A quality improvement project – Corey W. Hickey, DO
2:15 – 2:30 pm: Administration of Platelet Rich Plasma to Hip Labral Tears Reduces Pain and Improves Function – Andrew H. Gordon, MD, PhD
2:30 – 2:45 pm: The Effect of Walking Exercise Regimens on Gait Parameters and Cartilage Turnover in Patients with Knee Osteoarthritis – Prakash Jayabal, MD, PhD
2:45 – 3:00 pm: Cryodenervation for the Treatment of Upper Limb Spasticity: A Prospective Open Proof-of-Concept Study – Mitchell H. Paulin, MD
3:00 – 3:15 pm: Subdermal recording of high gamma cortical signals for brain machine interfacing – Jared E. Olson, MD

GROUP D (RREMS-1)
FLOOR 3 | TRAVIS B
2:00 – 2:15 pm: The Association of Chronic Pain and Mild Cognitive Impairment with Mobility. – Caroline A. Schepker, BSc
2:30 – 2:45 pm: Brain Computer Interface for Prosthetic Grasping in Stroke Subjects – Parth P. Patel, BS
2:45 – 3:00 pm: Virtual Sailing: A Novel Approach to Rehabilitation – Caleb King, BS
3:00 – 3:15 pm: Persistent hypogonadotropic hypogonadism in men after severe traumatic brain injury: temporal hormone profiles and outcome prediction – David J. Barton, BS

GROUP E (RREMS-2)
FLOOR 3 | TRAVIS C
2:00 – 2:15 pm: Clinical validity of a 0-10 Numeric Rating Scale measure of spasticity in children with cerebral palsy – Shelun Tsai, BA
2:15 – 2:30 pm: Social Problem-Solving Following Adolescent TBI: Correlate with Functioning – Lauren E. Fulks, BS
2:30 – 2:45 pm: Comparison of Rehabilitation Methods in a Rat Spinal Cord Injury Model – Thomas C. Bolig, BS, MS
2:45 – 3:00 pm: TNF-alpha Inhibits In Vitro Neuronal Differentiation of Human Dental Pulp Stem Cells: Implications for SCI Stem Cell Therapy – Kathy Chou, BS
3:00 – 3:15 pm: Clinical correlates and quantification of white matter microstructure using diffusion tensor imaging in chronic cervical spinal cord injury – Samuel Kim
OVER 400 POSTER PRESENTATIONS WILL BE DISPLAYED IN THE POSTER HALL.

POSTER PRESENTERS:
You have received your assigned poster number and date via e-mail. Your poster number, date, and abstract are also available on the AAP Annual Meeting App for presenter and attendee access. Visit www.physiatry.org/AAP2015 to search for your poster by title, presenter name, date, or topic.

You are responsible for displaying and staffing your poster during the assigned date and time. Please hang your poster by 9:00 am on your assigned date. You are also responsible for and required to take down your poster by 6:00 pm on your assigned date. Please be considerate to your colleagues who are displaying after you and have your poster down on time. You may find it useful to have a sketch or note pad available. This can be helpful facilitating discussion and recording feedback.

POSTER VIEWING:
Attendees are encouraged to view posters and provide feedback to authors during the following times.

Thursday, March 13, 2015
Coffee with the exhibitors and authors: 9:30 – 10:00 am
Refreshments & Poster Tours: 3:15 – 4:00 pm

Friday, March 14, 2015
Coffee with the exhibitors and authors: 9:00 – 10:00 am
Refreshments with the exhibitors and authors: 2:30 – 3:00 pm

POSTER GRAND ROUNDS
Friday, March 13, 2015: 4:30 – 5:00 pm
FLOOR 4 | TEXAS A

1. Early Hands-on Training to Enhance Baclofen Pump Resident Education – Katherine N. Nanos, BSc

2. Altered side-to-side muscle activity of the lower extremities during double-leg squat in femoroacetabular impingement – Monica Rho, MD

3. Effects of combined transcranial direct current stimulation (tDCCS) and robotic-assisted training on upper limb functions in chronic incomplete cervical spinal cord injury – Nuray Yozbatiran, PhD
EVENTS FOR PM&R RESIDENTS, FELLOWS AND MEDICAL STUDENTS

Note: CME is not applicable for resident, fellow, and medical student activities.

Wednesday, March 11, 2015

8:00 am – 5:00 pm
Residents / Fellows / Medical Students
Preconference Workshop
FLOOR 2 | LONE STAR D / E
Sponsored by:

In-kind support provided by: Cadwell, FujiFilm Sonosite, Terason

5:30 – 7:00 pm
Fellowship & Job Fair
FLOOR 4 | TEXAS BALLROOM FOYER
Sponsored by:

Thursday, March 12, 2015

10:00 – 11:30 am
Medical Student Roundtable
FLOOR 2 | LONE STAR D
This is an opportunity for medical students to ask questions and discuss the specialty of PM&R with current residents representing a number of programs across the country.

4:00 – 5:00 pm
Fellowship Panel
FLOOR 2 | LONE STAR D
Fellows representing a multitude of fellowship specialties will discuss everything from the application to interview trail to what it’s really like to be a fellow!

5:00 – 6:00 pm
Chief Resident Town Hall
FLOOR 2 | LONE STAR D
Join an open forum for Chief Residents from across the country to discuss different experiences and share advice with others in this leadership role.

Friday, March 13, 2015

5:30 – 7:00 pm
Fellowship & Job Fair
FLOOR 4 | TEXAS BALLROOM FOYER
Sponsored by:

5:00 – 6:00 pm
Resident / Fellow Career Pearls Program
FLOOR 2 | LONE STAR D
Speakers:
Nitin Jain, MD, MSPH is associate professor in both the Department of PM&R and of Orthopedic Surgery and Rehabilitation at Vanderbilt University, as well as Director of PM&R and Sports Medicine Research.

Mooyeon Oh-Park, MD is associate professor in the Department of PM&R at Rutgers New Jersey Medical School, as well as assistant director of Stroke Rehabilitation Research at Kessler Foundation.

Danielle Perret-Karimi, MD is associate clinical professor in the Department of PM&R at the University of California - Irvine, as well as director of the UC - Irvine Pain Medicine Fellowship.

5:00 – 6:00 pm
Resident / Fellow Council Elections
FLOOR 2 | LONE STAR D
Come to the RFC booth at the fellowship fair to meet the candidates up for election. Come to the elections to vote for your favorite candidates to represent AAP resident members.

8:00 PM – 12:00 AM
RESIDENTS NETWORKING EVENT
Friday evening at Pat O’Brien’s

Address: 121 Alamo Plaza, San Antonio, TX 78205
Committed to Innovation

Come experience the latest in neurosciences training and education.

Visit us at booth #25
**NON-AAP ACTIVITIES**

**Merz Neurosciences Product Theater:**
*IncobotulinumtoxinA for Cervical Dystonia*
*Wednesday, March 11, 2015: 12:00 – 1:00 pm*
FLOOR 3 | TEXAS BALLROOM

**Speaker** – Dr. Maria V. Alvarez, MD
Dr. Maria Alvarez is a board certified neurologist in San Antonio. She graduated from Spartan Health Sciences University in 2001, and specializes in conditions affecting the nervous system, such as epilepsy and Parkinson’s disease, and movement disorders such as Cervical Dystonia and Spasticity.

**Description** – Dr. Alvarez will present an overview of Botulinum Toxins, with a special focus on the use of IncobotulinumtoxinA as a treatment option for Cervical Dystonia.

**Program Coordinators Networking Event**
*Wednesday, March 11, 2015: 7:00pm*
PAT O’BRIEN’S RESTAURANT
*Sponsored by: Farr Healthcare*

Replica of the New Orleans institution with Cajun fare, Hurricane cocktails & a dueling piano bar.
**Address:** 121 Alamo Plaza, San Antonio, TX 78205

**Mayo Clinic Satellite CME Symposia:**
*Cartilage Regeneration*
*Friday, March 13, 2015: 11:00 am – 12:00 pm*
FLOOR 3 | Presidio Ballroom

**Description** – This talk will discuss strategies for the expedited repair of bone and cartilage. Traditional tissue engineering approaches, while sound, are likely to be too cumbersome and too expensive for widespread clinical use. Our group is developing gene-based technologies that will enable tissue regeneration without the need for cell culture or manufactured scaffolds. We call this approach facilitated endogenous repair. Using a rat femoral defect model we have been able to repair critical sized segmental defects by the direct injection of a recombinant adenovirus carrying bone morphogenetic protein-2 cDNA. As this is unlikely to be successful under conditions of poor soft tissue support, we are also developing intraoperative techniques that permit the use of genetically modified bone marrow, skeletal muscle and fat. These are highly successful in healing osseous defects in the rat and show promise in healing cartilaginous lesions in rabbits.

**UK Physical Medicine and Rehabilitation**
Striving to help patients understand their condition and provide the tools and resources to facilitate maximal functional recovery leading to optimum quality of life.

Learn more at ukhealthcare.uky.edu/physical-medicine
NETWORKING ACTIVITIES

Special Events

Wednesday, March 11, 2015

5:30 – 7:00 pm  Fellowship & Job Fair ................................................................. FLOOR 4 | TEXAS BALLROOM FOYER

Thursday, March 12, 2015

7:00 – 8:00 am  New Member Welcome Breakfast
All new AAP members and first time member attendees are encouraged to attend.

5:30 – 7:30 pm  President’s Reception ................................................................. FLOOR 4 | TEXAS BALLROOM
All registered attendees are encouraged to attend.

Friday, March 13, 2015

7:00 -8:00 am  Foundation for PM&R Walk, Run and Roll ........................................ Visit FPM&R Exhibit Booth

12:00 – 1:00 pm  Research Program Lunch ................................................................. FLOOR 3 | PRESIDIO A
Training in Grantsmanship for Rehabilitation Research (previous RSVP required).

5:00 – 6:30 pm  AJPM&R Reviewer Reception ....................................................... BAR ROJO PATIO
All AJPM&R editors and reviewers are encouraged to attend.

6:00 – 8:00 pm  PAL Open House ................................................................. FLOOR 2 | LONE STAR F
All PAL participants, mentors, alumni, faculty, and contributors are encouraged to attend.

7:00 – 9:00 pm  Residents / Fellows Networking Event .............................................. PAT O’BRIEN’S RESTAURANT
All residents, fellows, and medical students are encouraged to attend.
# Council Dinners – extra ticket required

**Tuesday, March 10, 2015**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:00 – 7:00 pm</td>
<td>Residency &amp; Fellowship Program Directors (RFPD) Council Dinner</td>
<td>FLOOR 3</td>
</tr>
<tr>
<td></td>
<td>Medical Student Educators Council Dinner</td>
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</table>

**Wednesday, March 11, 2015**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:30 – 7:30 pm</td>
<td>Chair Council Dinner</td>
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<tr>
<td>6:30 – 7:30 pm</td>
<td>Administrative Directors Dinner</td>
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# Committee & Business Meetings

**Tuesday, March 10, 2015**

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<th>Time</th>
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<td>5:00 - 5:30 pm</td>
<td>RFPD Business Meeting</td>
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<td>5:30 – 6:00 pm</td>
<td>MSE Business Meeting</td>
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**Wednesday, March 11, 2015**

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<td>8:00 – 3:00 pm</td>
<td>AAP Board of Trustees Meeting</td>
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<td>2:30 – 4:00 pm</td>
<td>Research Committee</td>
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<td>3:30 – 5:30 pm</td>
<td>Public Policy Committee</td>
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<td>4:30 – 6:00 pm</td>
<td>Membership Committee</td>
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**Thursday, March 12, 2015**

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<td>9:30 – 10:30 am</td>
<td>BARR Meeting</td>
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<td>12:00 – 1:00 pm</td>
<td>APEC Lunch</td>
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<td>2:30 – 5:00 pm</td>
<td>GME Task Force Meeting</td>
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**Friday, March 13, 2015**

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<td>12:00 – 3:30 pm</td>
<td>AJPM&amp;R Editorial Board Meeting &amp; Strategic Planning Lunch</td>
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<td>12:30 – 2:00 pm</td>
<td>Governance Committee Meeting</td>
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<td>Foundation for PM&amp;R Meeting</td>
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<td>Program Committee Meeting</td>
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<td>5:00 – 6:00 pm</td>
<td>Administrative Directors Council Business Meeting</td>
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**Saturday, March 14, 2015**

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<tr>
<td>7:00 – 8:15 am</td>
<td>AAP General Business Session &amp; Breakfast</td>
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DISCLOSURES

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<tr>
<td>Patrick Vande Lune</td>
<td>MD</td>
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<td>Kevin Vincent</td>
<td>MD</td>
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<tr>
<td>Christophe Visco</td>
<td>MD</td>
<td>Consultant</td>
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<tr>
<td>John Whyte</td>
<td>MD, PhD</td>
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<td>Tammie Wiley-Rice</td>
<td>MD</td>
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<td>Steve Williams</td>
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<td>Eric Wisotzky</td>
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<td>Nuray Yozbatiran</td>
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<td>Ross Zafonte</td>
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<td>Jessica Ziebarth</td>
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<tr>
<td>Krista Reiling</td>
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**Disclosure:** The table lists various affiliations and potential conflicts of interest for each individual, including industry-funded research, advisory committee/board membership, stock/ownership, patent holder, speakers bureau, clinical trial, and consulting. Most entries are marked as “None.”
9th World Congress of the International Society of Physical and Rehabilitation Medicine

19–23 June 2015 Maritim Hotel Berlin (Germany)

Main Topics
• Best Practice Models in Musculoskeletal Pain
• Biomolecular Research in Physical and Rehabilitation Medicine
• “Culture Matters” in Rehabilitation (in Collaboration with the European Academy for Rehabilitation Medicine)
• Genetic, Molecular and Neuronal Mechanism in Pain Rehabilitation
• Goal Setting in Rehabilitation: State of the Art
• Joining Efforts Towards the Implementation of the WHO Disability Action Plan 2014–2021
• Neuronal Reorganisation
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