Introduction

As 2015 comes to a close, we reflect on the many outstanding accomplishments in research over the past year at UBMD Orthopaedics and Sports Medicine. Over $6 million have been obtained for research through funds from various sources including the Ralph C. Wilson Foundation, the National Institutes of Health and Carestream Health, Inc. This funding is being used to develop many new studies, further research in the department and continue ongoing studies. Also, many offices are now using OBERD to collect clinical outcomes data which will facilitate future research studies. Lastly, the department has been extremely productive in disseminating research findings through numerous publications and presentations summarized in this newsletter. We would especially like to thank the Chair of our department, Dr. Leslie Bisson, and the Research Directors, Drs. Mark Ehrensberger and John Leddy for their dedicated leadership.

We would also like to thank all of the faculty, research and office staff, residents, and students who helped to make this year successful!

We wish everyone a Happy Holiday and good luck in the New Year!

Melissa Kluczynski, MS & Sonja Pavlesen, MD, MS, Editors

Funding Announcements

- The Ralph C. Wilson Foundation has awarded $4.2 million to UBMD Orthopedics & Sports Medicine to establish the Ralph C. Wilson Jr. Center of Excellence in the Jacobs School of Medicine and Biomedical Sciences.
- Dr. John Leddy has been awarded a 5-year RO1 grant for $2 million from the National Institutes of Health for his study entitled ‘Physiological mechanisms of a biomarker of recovery from concussion.’
- Drs. Mark Ehrensberger and A. Campagnari have received $75,000 from the Clinical and Translational Science Award Pilot Studies Program (University at Buffalo and the National Institutes of Health) for their study entitled ‘A novel electrical stimulation technology changing the paradigm for the treatment of orthopedic-related infections.’
Recent Publications


Dr. Kenneth A. Krackow Retires

We sadly announce the retirement of Dr. Kenneth A. Krackow, Professor of Orthopaedics in the Jacobs School of Medicine & Biomedical Sciences, State University of New York at Buffalo, and Clinical Director of Orthopaedics, Kaleida Health System. For over two decades, Dr. Krackow has been a dedicated physician, world-renowned scientist, and an outstanding mentor and teacher for many generations of medical students, residents and fellows. We are thankful to Dr. Krackow for leaving such a valuable legacy to UBMD Orthopaedics & Sports Medicine and our broader community.

We wish him a long, healthy and fulfilling retirement!

Honors and Awards—Congratulations!

- Dr. Mark Ehrensberger was awarded the 2015 Jeanette Wilkins Award for best basic science paper at the Musculoskeletal Infection Society Annual Meeting. Dr. Ehrensberger was also appointed to the Steering Committee of the Department of Defense Osseointegration Program.

- Dr. John Leddy served as a scientific grant reviewer for the Research Committee of the National Athletic Trainers Association (NATA) and for Canada’s Thrasher Foundation.
Are you ready for CLICK IRB software?

The University at Buffalo’s new IRB software, Click, is up and running as of November 1, 2015. Click can be accessed with your UB IT username and password here: http://www.buffalo.edu/research/research-services/click-implementation.html. All IRB submissions must be submitted through Click. All IRB templates and forms can be found here: http://www.research.buffalo.edu/rsp/irb/irb-toolkit.cfm

Recent Presentations

October 2015


Recent Presentations (continued)

**November 2015**


**December 2015**

Ehrensberger, M.T. Electrical Stimulation for Infection Control of Osseointegrated Prosthetic Limbs, Department of Defense Osseointegration Program Steering Committee Meeting, Walter Reed National Military Medical Center. Bethesda, Maryland. Invited Presentation.

A complete listing of 2015 departmental poster & podium presentations can be found in the Appendix.

**Upcoming Grant Deadlines**

**MSTS Clinical Research Grant in Orthopaedic Oncology (OREF)**
- **Funds:** $98,000
- **Deadline:** January 15, 2016
  
  http://www.oref.org/grants-and-awards/grant-programs/research-specific-grants

**Arthritis and Aging Research Grant**
- **Funds:** up to $100,000
- **Deadline:** January 15, 2016
  
  http://www.curearthritis.org/arthritis-aging-research-grant/

**North American Spine Society**
- **Funds:** $50,000
- **Deadline:** February 8, 2016 (letter of proposal due)
  

**AMSSM-ACSM Clinical Research Grant**
- **Funds:** $20,000/yr
- **Deadline:** February 12, 2016
  
  http://www.amssm.org/Research.html
Epidemiology Corner: What is Statistical Power?

**Statistical power** refers to the likelihood of detecting an actual significant difference (or association) when one truly exists. Having a large enough sample size increases confidence that an association will be seen if it truly exits. It is important to calculate sample size during the study design phase, before data collection, to ensure adequate power. Alternatively, power can be estimated if the sample size is predetermined.

Various statistical software programs can be used to calculate sample size or power, along with assistance from a biostatistician or epidemiologist. The following information is necessary for performing a **sample size or power calculation**:

- Significance level (usually $P<0.05$)
- Desired power (usually 80%)
- Desired effect size (e.g., expected mean difference in outcome between groups)
- Estimated variance

Desired effect size and variance can be estimated from pilot data or previously published studies.

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**Research Team Contact Information**

**Directors**
- John Leddy, MD, (leddy@buffalo.edu)
  Director of Clinical Research
- Mark Ehrensberger, PhD (mte@buffalo.edu)
  Director of the Kenneth A. Krackow Orthopaedic Research Laboratory

**Buffalo General Hospital/ECMC**
- Sonja Pavlesen, MD, MS (pavlesen@buffalo.edu)
  Clinical Research Associate
- Mary Bayers-Thering, MS, MBA (MBayers-Thering@KaleidaHealth.Org)
  Research Coordinator, Coordinator for Surgical Skills Training

- Laura Ryan, MPH (laurabec@buffalo.edu)
  Research Assistant

**Sports Medicine/Harlem Rd. office**
- Melissa Kluczynski, MS (mk67@buffalo.edu)
  Clinical Research Associate
- Kathleen Lafferty (klaffert@buffalo.edu)
  Research Assistant, Administrative Assistant

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**Prevention of Musculoskeletal Youth Sports Injuries Grant (OREF)**

- **Funds:** $100,000-150,000 for 2-3 yrs
- **Deadline:** February 16, 2016

**Scoliosis Research Society Grants**

- **Funds:** $10,000, 25,000, 50,000
- **Deadline:** April 1, 2016
- [http://www.srs.org/professionals/research-and-journal/research-grants](http://www.srs.org/professionals/research-and-journal/research-grants)
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List of 2015 Publications and Presentations

PUBLICATIONS

Peer-reviewed Articles:


**Book Chapters:**


**POSTER PRESENTATIONS**


NATIONAL AND INTERNATIONAL SPEAKING ENGAGEMENTS (COMPLETED AND PENDING)


Please note that every effort was made to compile all departmental publications and presentations from 2015. Please contact a Clinical Research Associate if you have any additional items for this list.