Dr. Spencer Melby to Receive BLR&D Merit Review Funding

As part of his cardiothoracic fellowship training at Washington University, he spent three months in the United Kingdom as a cardiac surgery fellow primarily at Southampton General Hospital in Southampton, England. He worked as faculty at the University of Alabama in Birmingham for three years after completion of his training until returning to Washington University in St. Louis in 2014.

His research has focused on the causes and treatments of atrial fibrillation. During his residency and fellowship years, he contributed several key publications on atrial fibrillation and treatments of the common disease. Using a canine atrial tissue model, he demonstrated that atrial fibrillation can be propagated through any remaining tissue after creating ablations for conduction block, which confirms the notion that complete ablations are necessary for the catheter and surgical approaches for treatment of the disease. Using novel devices, he has shown that the standard surgical therapy can be shortened and be done in a less-invasive manner while maintaining the high rates of control of the disease (the Cox-Maze IV procedure). The biochemical investigation, including the study of cytokines and chemokines present in the pericardial fluid post-surgery (and their bioenergetics), has already laid a foundation on which he will correlate specific pathways of inflammation or damage to the atrial myocytes in the pericardial environment with postoperative atrial fibrillation.

His clinical research regarding the timing of postoperative atrial fibrillation has demonstrated that it occurs in two distinct phases after cardiac surgery, with distinct risk factors in each phase; this understanding has helped to focus research on contributing factors at each distinct time period after surgery.

The preliminary information garnered from evaluation of pericardial fluid after cardiac surgery has already been published with intriguing information regarding the correlation of increased oxidative stress in the pericardial composition with increased rates of postoperative atrial fibrillation. He has intimate working knowledge of the disease of atrial fibrillation and is facile with atrial tissue models. His past studies have provided groundwork which will enable successful elucidation of specific inflammatory mechanisms which alter electrophysiology of atrial myocytes and contribute to atrial fibrillation, identification of these specific targets will allow for targeted treatments to ameliorate the common morbid complication of postoperative atrial fibrillation.

Dr. Spencer J. Melby, a Staff Physician and Cardiothoracic Surgeon at the VA St. Louis Health Care System, has been notified that his VA Merit Reward Award proposal entitled “Contribution of Inflammation and Oxidative Stress in Pericardial Fluid to Postoperative Atrial Fibrillation after Cardiac Surgery” is being considered for VA funding. The aim of his study is to investigate the fluid around the heart after surgery, and define the specific parts which may be contributing to injury to the heart and atrial fibrillation. Furthermore, he will be testing how the presence of inflammatory cells and their products (found in the fluid) on a dog’s atrium changes the electrical conduction and the induction of atrial fibrillation. The long-term goal is to define specific targets in the fluid that can be treated to prevent this common complication.

Dr. Melby is also an Assistant Professor of Surgery in the Division of Cardiothoracic Surgery at Washington University in St. Louis. He graduated cum laude from Brigham Young University with Honors in Zoology and received his medical degree from the University of Utah School Of Medicine in 2002. He completed his residency training in general surgery at Washington University and Barnes Jewish Hospital, including a research fellowship in cardiac surgery.
Research Highlights:

- Ms. Erin Olson is now Acting Research AO.
- Merit Review Award funding is being considered for Dr. Spencer Melby.
- Ten Merit Review applications were submitted to ORD for the Fall cycle.
- The ODEAR subcommittee has been re-established to assist investigators.
- New GME Specialist for Research and Education Service, Mr. Joseph Bloomquist
- CEC News – Benjamin Bowe has been hired as VA Biostatistician.
- CEC Outreach – VA Data Presentation to be given by Charlie Bowe at SLU on September 22, 2016
- Dr. Seth Eisen presented VA funding opportunities at Saint Louis University.
- Administrative Officer, ADPAC and CEC Project Manager positions being recruited. Budget Tech being hired.
- Successful Research Day Outcomes – outstanding speakers and attendance
- New 2016 budget process for Merit Review Award applications implemented.
- New ORD data management and access plan form now required for all protocols and applications.

News in the Clinical Trials Unit

by Brandi van Gils

CTU Members: From left, back row: Marie White, RN, BSW, CRC; Caroline Rowe, FNP, BC; Peggy Donovan, RN; Stephanie Simmons, Pooja Chandiramani, MBBS, MPH; Karla Ali
From left, front row: Paul Vercher, RN, BSN, MSN/INF; Lindsey Shoults, Kristin Vargo

On June 23, 2016, the Prevention of Serious Adverse Events Following Angiography (PRESERVE) trial enrollment reached 4,000 patients overall. PRESERVE is, by a significant margin, the largest trial of acute kidney injury ever conducted and is one of the largest trials in the area of kidney disease ever conducted. The St. Louis VA was one of the top recruiters for this study. In an effort to expand recruitment efforts beyond the 100 mile constraints of Hooper Homes Services, the PRESERVE team has now coordinated with Poplar Bluff and Marion VA to obtain blood samples, allowing participants the ease of traveling shorter distances to participate in the study.


Colonoscopy Versus Fecal Immunochemical Test in Reducing Mortality From Colorectal Cancer (CONFIRM) is now the largest VA clinical trial in history. As of June 16, 2016, CONFIRM has randomized 40,366 participants. The prior record was 38,546 (for the shingles prevention study).

Paul Vercher, Caroline Rowe, Kristin Vargo, and Dr. Michael Forsberg were recognized with an award on April 28 for their recruitment efforts on Drug-Eluting Stents vs. Bare Metal Stents In Saphenous Vein Graft Angioplasty (DIVA) between May 2015 and December 2016. They placed 4th overall in the nation in having the top enrollment numbers.
Million Veterans Program Update

by Maria Woodson

The Million Veteran Program reached 500,000 Veterans enrolled nationwide. Here at the Saint Louis John Cochran location, it’s reached over 2000 Veterans enrolled. The Million Veteran Program has a strong interest in understanding the role that genes play in the diseases they develop making MVP the largest genomic database in the world. In an effort to expand recruitment, the Million Veteran Program has coordinated with the Manchester Outpatient Clinic to enroll Veterans and obtain blood samples to make it convenient for Veteran.

The Million Veteran Program will also have a second site located at Jefferson Barracks on the 3rd floor room 3C04. We anticipate starting October 3, 2016. MVP goes beyond improving the healthcare of Veterans. What is learned will benefit mankind, as VA research has done over the decades. When Veterans agree to participate in Million Veteran Program they are providing a generous gift to future generations. We can never thank them enough for their participation. It’s easy to enroll and takes about 15 minutes. If you would like more information about becoming ONE IN A MILLION, please call 1-866-441-6075 for more information.

As we all know, animal research supported with VA funding, conducted in VA leased space, or done by VA investigators on official VA time must be approved by the VA Institutional Animal Care and Use Committee (IACUC) and the Subcommittee for Research Safety (SRS).

There is also an expectation that the Animal Component of Research Protocol (ACORP) approved at the VA is comparable to the IACUC approved animal protocol at the affiliate institution. It is the PI’s responsibility to ensure that the research approved by the VA IACUC is also described in an IACUC approved protocol at the institution where the research is being conducted.

How is this done? When the PI submits a new ACORP, three-year renewal, annual review or an amendment to the VA IACUC, he/she must also submit the corresponding affiliate’s IACUC approved documentation to allow the IACUC to perform a congruency check during the approval process.

What are they reviewing? The IACUC will be comparing some of the following:

- Species, strains, and numbers of animals used;
- Experimental procedures conducted on animals
- Location of animal housing and animal procedures
- Veterinary care, minimization of discomfort, distress, pain and injury
- Endpoints and method of euthanasia

As a reminder, no work on the collaborative activity may be carried out until both VA’s IACUC and the affiliate IACUC have both granted approval of the same protocol for the collaborative activity.

The VA IACUC has recently started reviewing all PI’s protocols for congruency and is currently working diligently on this project. Please help the IACUC reviewers by submitting the necessary documentation when the IACUC administrator sends you a request.

If you have any questions or concerns regarding this process, please contact me or the IACUC administrator.

Research Staff

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Wanda McLemore, RDC/CIRB Coord 55518
Carolyn Williams, WOC/TRNG Coord 55520
Krystle Young, IRB Coord 55550
Anthony Doss, Supply/Equip Tech 55523
Comings and Goings

• **With our thanks and best wishes, we say goodbye to the following WOCs:** Jennifer Dill, M’Liss Hudson, Lorinette Wirth, Jeane Boxch, Lisa Zickuhr and Tarnesha Thelemaque, Jason Gumbel
• **Goodbye and Best Wishes:** Kathleen Raman, MD, PhD; Kelley Unsicker; Mary Coleman
• **Welcome to our new WOCs:** Catherine Baxley, Taylor Montgomery and Dr. Yan Yan
• **Welcome to our New Employees:** Erin Olson, Brandi van Gils, Joseph Bloomquist (GME); Benjamin Bowe
• **Congratulations:** Tiffany Lorthridge and Suhong Lou on their new arrivals.

Guidance for Use of Social Media, Including Facebook or Twitter, and the Use of Craigslist when Recruiting Research Subjects in VA Research

The link below will lead you to a description of ORD’s current position on use of Facebook, Twitter, and Craigslist when recruiting research subjects in VA research. This guidance supersedes ORD’s March 13, 2013 guidance entitled Guidance for use of Facebook and Twitter when Recruiting Research Subjects in VA Research. For questions on the content of this guidance, email the VHA Office of Research and Development at VHACCORDRegulatory@va.gov

VA Research Merit Review Information

VA ORD supports approximately **2,300 intramural research projects**, including individual investigator awards, large clinical trials, research centers, and career development awards. Approximately **60%** of investigators are clinicians.

### Peer Review Outcomes

<table>
<thead>
<tr>
<th>Award Type</th>
<th># Reviewed</th>
<th>Percent funded</th>
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<tbody>
<tr>
<td><strong>Spring 2015</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Merit Review</td>
<td>565</td>
<td>16%</td>
</tr>
<tr>
<td>Career Development</td>
<td>45</td>
<td>18%</td>
</tr>
<tr>
<td>Pilot Studies</td>
<td>9</td>
<td>11%</td>
</tr>
<tr>
<td><strong>Fall 2015</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Merit Review</td>
<td>486</td>
<td>18%</td>
</tr>
<tr>
<td>Career Development</td>
<td>31</td>
<td>39%</td>
</tr>
<tr>
<td>Pilot Studies</td>
<td>16</td>
<td>25%</td>
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### Merit Review Award Applications Submitted for Fall 2016 Cycle

<table>
<thead>
<tr>
<th>Principal Investigator</th>
<th>Title of Proposal</th>
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<tbody>
<tr>
<td>Balke, C. William, MD</td>
<td>Molecular Determinants of Repolarization and Remodeling in Human Heart</td>
</tr>
<tr>
<td>Bernal-Mizrachi, Carlos, MD</td>
<td>Vitamin D and Developmental Origins of Insulin Resistance</td>
</tr>
<tr>
<td>Burris, Thomas, PhD</td>
<td>Nuclear Receptor Regulation of the Inflammasome</td>
</tr>
<tr>
<td>Farr, Susan, PhD</td>
<td>Metformin as a Treatment for Alzheimer's Disease</td>
</tr>
<tr>
<td>George, Sarah, MD</td>
<td>Determine if a Candidate Dengue Vaccine in Advanced Trials Induces Antigen-specific Cellular Immunity that Mimics Immunity after Multiple Infections and Controls Antibody-enhanced Viral Replication</td>
</tr>
<tr>
<td>Harris, Charles, MD, PhD</td>
<td>Role of GR Phosphorylation in Adipogenesis and Adipose Insulin Resistance</td>
</tr>
<tr>
<td>Kornbluth, Jacki, PhD</td>
<td>NKLAM: An RBR E3 Ubiquitin Ligase Essential for Regulation of Innate Immunity</td>
</tr>
<tr>
<td>Martin, Wade, MD</td>
<td>Arm Exercise versus Pharmacologic Stress Testing for Clinical Outcome Prediction</td>
</tr>
<tr>
<td>Rauchman, Michael, MD</td>
<td>Mechanisms and Treatment of Kidney Fibrosis</td>
</tr>
<tr>
<td>Zayed, Mohammed, MD, PhD</td>
<td>Targeting Arterial Wall Phospholipids in Diabetic Peripheral Arterial Disease</td>
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The VA St. Louis Health Care System hosted our Research Day on Friday, April 29, 2016 at the VA Enright Building. Mr. Keith Repko, Interim Medical Center Director, welcomed our participants with opening remarks. Overview Research Program presentations were made by Dr. Ziyad Al-Aly, MD, ACOS, Research and Education Service, Jennifer K. Lodge, PhD, Vice Chancellor and Associate Dean for Research, Washington University and Joel Eissenberg, PhD, Professor & Associate Dean for Research, Saint Louis University.

Our keynote speaker, J. Michael Gaziano, MD, PhD, Scientific Director, MAVERIC and Principal Investigator at VA Boston Healthcare System, gave his presentation on the Million Veteran Program (MVP).

Abhinav Diwan, MD, VA Staff Physician, Associate Professor of Medicine at WU, and our Distinguished Researcher of 2016, gave a presentation entitled: “Harnessing the Lysosome Machinery to Prevent and Treat Disease.”

Our Research Committee Chairmen and members were recognized for their dedication and outstanding service.