## **UMMHC/UMMS Department of Surgery Newsletter**

## **Departmental Updates**



Welcome to
 Leora B. Balsam, MD,
 Associate Professor of
 Surgery, who joins us as
 a new faculty member
 in the Division of
 Cardiac Surgery.

• Jorge Lujan-Hernandez, MD (PGY2, Plastic Surgery Residency Program), Raymond Dunn, MD (Professor of Surgery, Division Chief of Plastic Surgery), and Gulden Camci-Unal, PhD (Associate Professor of Chemical Engineering at UMass Lowell) were recently named the recipients of the 2017 Medical Device Innovation Award by the Massachusetts Medical Device Development Center (M2D2), a collaboration of UMass Medical School and UMass Lowell. The program was established to "identify pressing health care programs and bring together cross-campus colleagues with engineering or technology expertise to create multidisciplinary teams to solve the problem with a medical device." The current award highlights the group's plan to develop a post-operative hybrid dressing for skin-graft donor sites.





• Louis M. Messina, MD and his laboratory have published a manuscript entitled "Diabetes Impairs Wound Healing by Dnmt1-dependent Dysregulation of Hematopoietic Stem Cells Differentiation towards Macrophages " in the January 2nd issue of



the prestigious journal Nature Communications. This is the second recent manuscript published by the Messina lab in which they show the novel concept that both innate immunity and inflammation can be regulated by hematopoietic stem cell (HSC)-autonomous mechanisms. Their research shows that Type 2 Diabetes Mellitus (T2DM) impairs wound healing by causing an oxidant stress in HSC that induces epigenetic mechanisms that, in turn, cause changes in gene expression that reduces HSC differentiation towards monocytes/tissue macrophages. This reduces the number of macrophages across the three phases of wound healing and skews the tissue macrophages towards the M1 inflammatory phenotype and reduces the M2 angiogenic phenotype. A HSC autonomous mechanism means that all the changes in gene expression responsible for impaired wound healing in T2DM are within the HSC. Thus, if the HSCs from a T2DM mouse are transplanted into lethally irradiated wild type mice, the wild type mouse will have impaired wound healing despite the absence of the metabolic abnormalities that characterize T2DM.

• Anne C. Larkin, MD was nominated and elected as a Director for the American Board of Surgery. Congratulations!

## **Upcoming Events**

- **1. Tuesday, February 27:** Save the date! Farewell Reception for **Geoffrey Graeber, MD**. The event will take place from 4:30-6:30 pm in H3-551.
- 2. Monday, February 12: The Resident and Associate Society (RAS) of the American College of Surgeons will be hosting a Grand Rounds Webinar, entitled "Concurrent and Overlapping Surgery: Know the Difference." The event will take place Monday, February 12, 6-7 pm, Central time, and will be hosted by Patricia Turner, MD, David Hoyt, MD, and Edward Lee, MD. Information and reg-istration can be found at https://www.facs.org/member-services/ras/webinars/concurrent
- 3. Thursday, February 15: Faculty and residents are all welcome to our 2<sup>nd</sup> Annual Simulation Social Hour. We will have a fun evening of healthy competition in our Surgical Simulation Lab at the Albert Sherman Center. All faculty and residents are invited. Food and drinks are planned. Please contact Jennifer Davids, MD with questions.
- **4. Tuesday, February 13-Thursday, February 15.** Thank you in advance for your participation in the upcoming Graduate Medical Education (GME) CLER visit!
- **5. Thursday, March 1.** The Comprehensive Cancer Care Conference will host its next interdisciplinary session on "Non-Small Cell Lung Cancer" on Thursday, March 1, from 3-5:30 pm in Amphitheatre II, S4-102. This free event is open to all!
- 6. Saturday, April 21. The 2018 Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS)-New England Regional Conference will take part at UMass Medical School on Saturday, April 21. This year's theme will be "Scientists as Advocates and Agents for Social Change." This free program is open to all trainees, staff, and faculty. For more information including how to register, please contact sacnas.umms@gmail.com
- 7. Sunday, May 27. The 14<sup>th</sup> Run to Remember Race will take place at the Seaport World Trade Center in Boston on Sunday, May 27. Please sign up to join the MA-ACS team, "Cut to the Chase." Registration can be found at: http://www.bostonsruntoremember.com/boston/index.html

Thank you for all of your submissions for the newsletter! Please continue to submit your accomplishments of any kind so we can highlight your successes!