The Research Reinvestment Fund (RRF) was established to help achieve the Department of Surgery’s goal of becoming the premier home for surgical research. The second round of proposals for 2013 was recently completed with numerous faculty submissions. While all of the proposals addressed significant research questions, four were judged to be especially impressive in terms of their deliverables and potential returns on investment. Congratulations are in order to the following investigators:

Heather Evans, MD, MS, Assistant Professor, Trauma, Burn and Critical Care Surgery. This award provides support for development of an innovative mobile app (mPOWEr) to enable patient-directed post-discharge surveillance of surgical site infections (SSI). mPOWEr will be tested in patients at high risk for SSI to assess usability and the app data will be presented to providers to validate clinical assessment. This pilot data will establish proof of concept to conduct a comparative effectiveness trial measuring patient satisfaction and empowerment, time to diagnosis and treatment of SSI, and healthcare utilization including ER visits and readmissions.

Charles Mock, MD, PhD, MPH, Professor, Trauma and Burn and Critical Care Surgery. Dr. Mock’s funding will provide support for a cutting edge strategic analysis of the barriers low income countries face in basic trauma care technologies into their healthcare systems. The project will examine issues such as equipment costs, lack of trained personnel, and stock outs of needed supplies. The pilot data he gathers will inform major funders regarding high yield areas for health systems research and future product development opportunities.

Gale Tang, MD, Assistant Professor, Vascular Surgery. This funding will be used to develop a better understanding of the molecular control of collateral artery development through the examination of the role that the kinase inhibitor p27Kip1 plays in collateral artery development. The project will lay the foundation for future mechanistic studies into p27Kip1’s role in arterial remodeling as well as allow for testing of possible therapeutic strategies for revascularizing critical ischemic patients.

Tom Varghese, MD, Associate Professor, Cardiothoracic Surgery. Tom is medical director of Strong for Surgery, a public health campaign launched in Washington state in May 2012 aimed at identifying and improving evidence-based practices for elective surgical patients in the presurgical office setting. The Department of Surgery Reinvestment fund will help in the design and development of an integrated web-based, electronic platform for the Strong for Surgery intervention to include the following four components: a personalized checklist, a results delivery mechanism to patients and providers, an automated protocol for pre-operative patient reminders, and a patient reported outcomes survey mechanism.

The total award for this quarter was $200,000, and it is anticipated that the results of these exciting projects will result in further funding from external sponsors.