

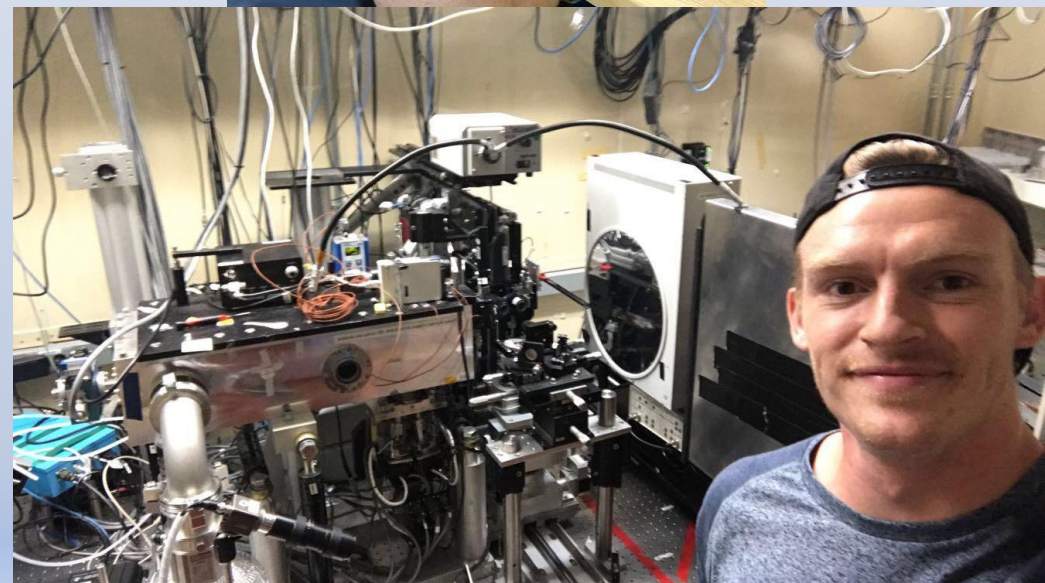


Utah Chapter

2018 Scholar Update

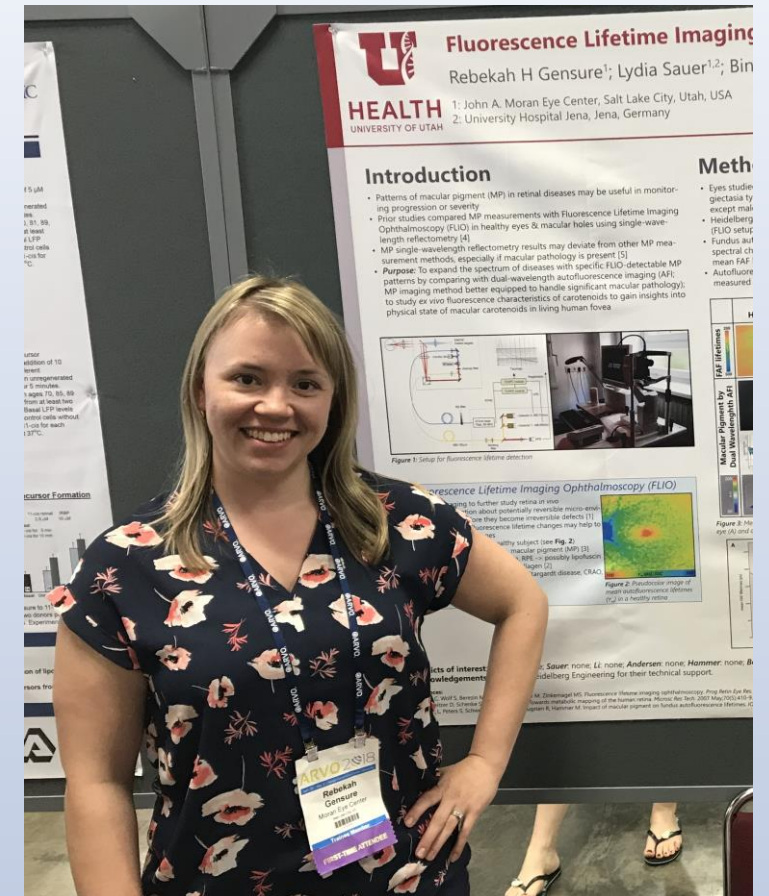
Marcus Parry ARCS Scholar 2016-2017

- 3rd Year Materials Science and Engineering PhD student
- Research: Utilization of informatics and machine learning techniques to aid the discovery of novel inorganic materials with optimized mechanical properties.
- Utilizes the synchrotron at Advanced Light Source (ALS) at Lawrence Berkeley National Lab and Advanced Photon Source (APS) of Argonne National Lab
- Attended Modern Methods in Rietveld Refinement for Structural Analysis school at Oak Ridge National (ORNL) Lab Summer 2017
- Attended Neutron and X-ray Scattering school at APS and ORNL Summer 2018
- Article in Journal of American Chemical Society, July 2018



Rebekah Gensure, MD ARCS Scholar 2016-2017

- 2nd Year Ophthalmology Resident, John A. Moran Eye Center
- Using fluorescence lifetime imaging ophthalmoscopy (FLIO) system and working with Dr. Bernstein to identify patterns associated with macular telangiectasia type 2 (MacTel).
- Doing systematic control studies to characterize fluorescence decay properties of the common macular carotenoids.
- Investigating the effects of the natural lens vs intraocular implants on FLIO measurements.
- Presented findings at the Association for Research in Vision and Ophthalmology (ARVO) conference in Hawaii. Work now published in *Investigative Ophthalmology & Visual Science*



Aniqua Baset

ARCS Scholar 2015-2016



- 4th Year Computer Science PhD student
- Research: Application of machine learning and data mining techniques in the field of wireless communications.
- Works with team from UofU and Idaho National Lab (INL) developing a real-time spectrum monitoring system to aid in spectrum management and identifying harmful interference in industrial facilities like power stations, water treatment plants, oil and gas refineries, etc.
- Interned at Idaho National Lab Summer 2018 taking part in several successful demonstrations of their spectrum monitoring system.
- Interned at Nokia Bell Labs Summer 2017 investigating radar signal detection techniques to be used in emerging dynamic spectrum access system.

Sam Sprawls

ARCS Scholar 2017-2018

- 2nd Year Materials Science and Engineering PhD student
- Research: Understanding the effects of neutron and gamma radiation on gallium nitride devices.
- Working with collaborators at the University of New Mexico, Penn State and Pacific Northwest National Labs
- Successfully completed goals for year one of project looking for damage threshold for devices exposed to neutron and gamma radiation.
- Next step: Package gallium nitride devices so electrical measurements of the devices can be taken while in a radiation chamber to gain understanding of the exact mechanisms that create damage.
- Joined the Graduate Student Council for the Materials Science and Engineering Department. Working to create better welcoming materials and activities for new graduate students.



Alex Szendrei ARCS Scholar 2014-2015



- Materials Science and Engineering PhD student
- Research: Solid oxide and polymer electrolyte fuel cells and sodium-sulfur batteries.
- Published three papers with two more planned.
- Presented work at national conferences of the Electrochemistry Society and American Ceramic Society.
- Thesis defense planned Spring 2019
- Applying for jobs in the energy storage and semiconductor industries.

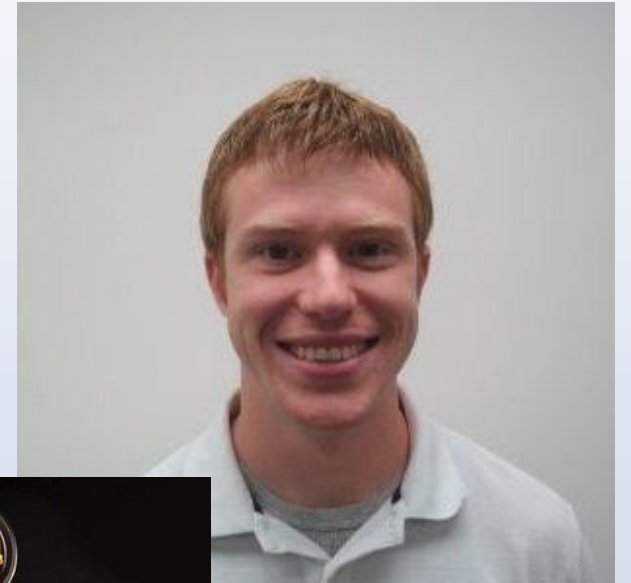
Brad Jacobsen, MD ARCS Scholar 2017-2018

- 1st Year Resident, John A. Moran Eye Center
- In November traveling to Mwanza, Tanzania to conduct a retinal prevalence study to determine the need for retinal services in the region.
- Studying several generations of a family with optical nerve pits. Optical nerve pits can lead to severe vision loss. This project with Dr. Bernstein hopes to better characterize the genetic makeup of this family.



Daman Bareiss [ARCS Scholar 2011-2012](#)

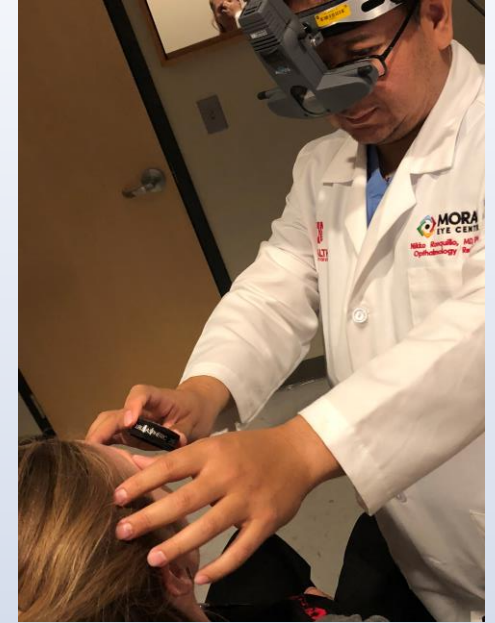
- Graduated Spring 2016 with a PhD in Mechanical Engineering
- Worked at Omron Adept Technologies on software algorithms for mobile robot collision avoidance.
- Now working in Utah at Sarcos Robotics as the software engineering technical lead on the exoskeleton program. Exoskeletons are finding usefulness in reducing occupational injuries.



Nikko Ronquillo, MD ARCS Scholar 2015-2016

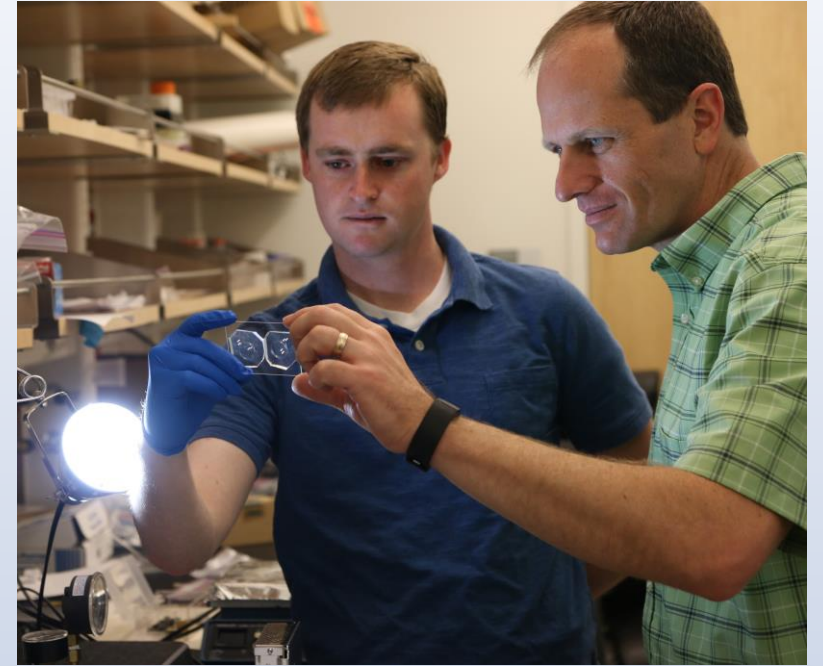


- Chief Resident, Department of Ophthalmology and Visual Sciences, John A. Moran Eye Center
- Resident Speaker of the Year, 2017-2018, John A. Moran Eye Center
- Presented at 5 International/National Meetings 2016-2018
- Published 6 papers, 5 abstracts, 7 peer-reviewed online publications.
- One of 30 residents in the country to participate in the Heed Resident Retreat 2018
- Nominated for Ophthalmology Time Research Scholar Honoree Program, 2018



Alex Jafek ARCS Scholar 2016-2017

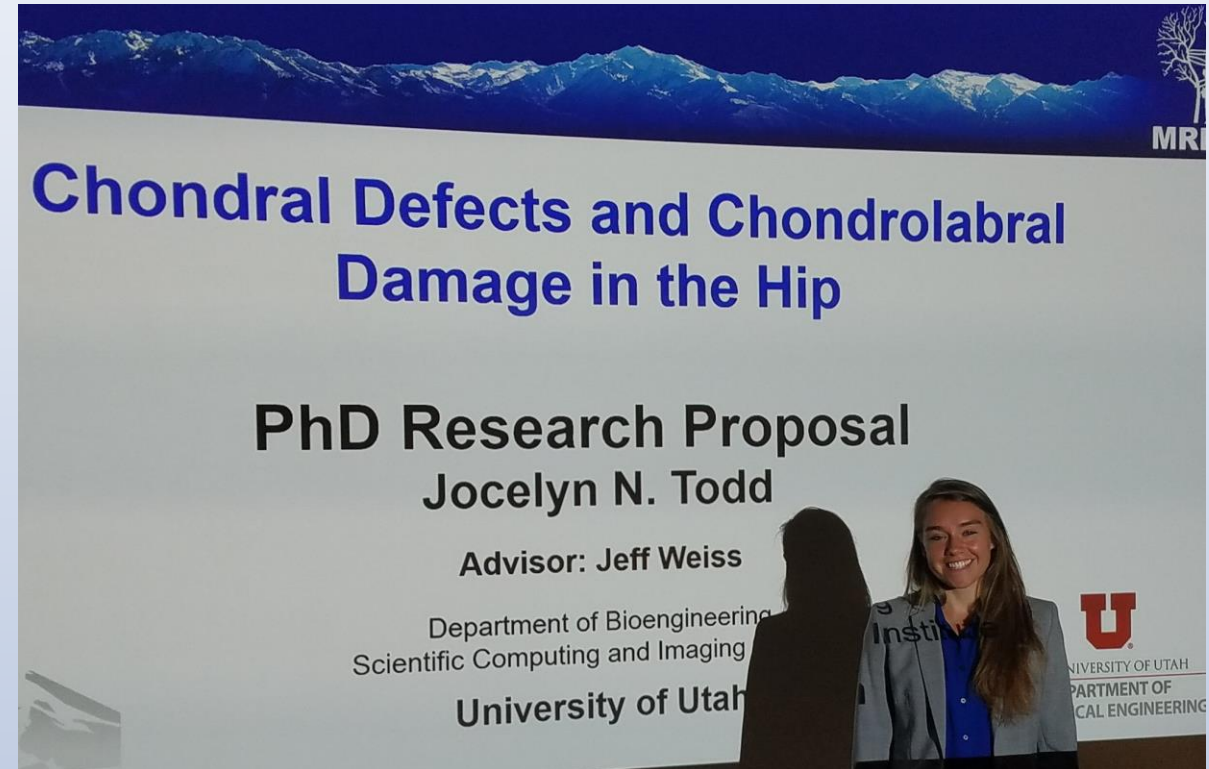
- 3rd Year Mechanical Engineering PhD student
- Research: Development of microfluidic devices to solve biological problems with a current focus on development of tools for male-factor infertility.
- Lead Author on one publication, co-author of three more.
- Twice presented work at the International Conference on Miniaturized Systems for Chemistry and Life Sciences.
- Attending this year's conference in Taiwan.
- Alex is a National Science Foundation Graduate Research Fellow.



Jocelyn Todd

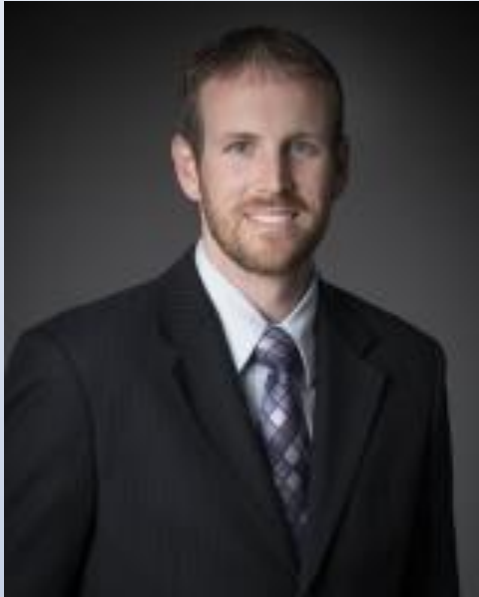
ARCS Scholar 2015-2016

- Biomedical Engineering PhD student
- Completed written and oral qualifiers for PhD Research Proposal.
- Research: Analyzing mechanics of cartilage in the hip in order to shed light on risk factors of osteoarthritis progression.
- Published first author paper in January dealing with the results of the first aim of research.
- Qualified for 2020 US Olympic Trials in the marathon.



Brian Zaugg, MD

ARCS Scholar 2012-2013



- Assistant Professor of Ophthalmology, John A. Moran Eye Center
- Specialty: Cornea transplantation and LASIK surgery.
- Clinical practice
- Research: Fundamentals in cataract surgery and refractive surgery.
- Many papers and presentations at national meetings.
- Keeps busy with six children.

Chantel Charlebois ARCS Scholar 2017-2018

- Biomedical Engineering PhD student
- Research: Building patient-specific computational head models of drug-resistant epilepsy patients who have been implanted with the responsive neurostimulation (RNS) system.
- Presenting at the Biomedical Engineering Society and Society of Neuroscience conferences Fall 2018

