BACKGROUND
One of the main reasons that Dr. James Bell chose to complete his residency program at the John A. Moran Eye Center is the international rotation offered to residents. According to Dr. Bell, his interest in ophthalmology, dating back to medical school, was deeply rooted in the opportunity to participate in humanitarian work both overseas and locally.

The Outreach Division of the Moran Eye Center (JMEC) sponsors its chief residents to complete a three-week international rotation in a developing region of the world. This experience gives them exposure to both clinical and surgical settings in a unique environment and sparks a desire to perform humanitarian work.

From February 1 through 21, 2014, Moran chief resident Dr. James Bell traveled to Nepal to complete his international rotation in retina at the Tilganga Institute of Ophthalmology (TIO) in Kathmandu. Prior to traveling to Nepal, Dr. Bell participated in local outreach trips in Utah. He performed free eye exams on the Utah strip of the Navajo Nation and offered free ophthalmic services at Salt Lake City’s Fourth Street Clinic. Dr. Bell integrates his passion for global and local outreach into his career, much like many other JMEC alumni who remain engaged with Moran’s humanitarian efforts.

PHYSICIAN’S DIARY
The following are excerpts from Dr. Bell’s fascinating Nepal travel journal.

FEBRUARY 1
Here I sit in the airport about to embark on the longest flight of my journey. It’s funny – I have been talking quite a bit about my upcoming trip, and people’s reaction to my flight plan to Nepal is usually one of sympathy; I am nothing but excited! This trip will be a large stepping stone in my ability to provide future services to those in need both locally and abroad. Time to get on the flight and get back to reading about retina and small incision cataract surgery so I am prepared!

FEBRUARY 5
First day at Tilganga: It is quite an eye hospital! They have everything from an operating room to ancillary testing (such as photography and ultrasound), to an eye bank, to living quarters for other international students and physicians. Over the next few weeks, I’ll be working with uveitis and retina specialists. Today, I spent time with Dr. Anu, the sole uveitis specialist. She was quite busy and saw plenty of diseases that we don’t see in the States. It was very educational, and Dr. Anu allowed me to examine each patient and ask as many questions as I needed (and I certainly had quite a few).

We saw a woman who suffered from Vogt-Koyanage-Harada syndrome. She was seen months prior, but didn’t return for her reevaluation and medications. Not because she forgot, but because her in-laws had decided that it was a waste of time and money. The dynamic that prevented her from following up as planned was both sad and important; there are many layers to care for each patient, and all must be taken into account or even the best treatment plan will not work.

FEBRUARY 6
The uveitis specialist who I am working with is one of only two in the entire country! As a result, patients come to see her from all over. Uveitis is different from many other eye diseases in that it often requires ancillary tests, such as x-rays and blood work, and additional consults with other physicians, like rheumatologists. Many patients come once or twice, and as soon as their disease starts to improve, they often stop making the journey to see their ophthalmologist. This is understandable, as the journey can take over a day, and most can’t afford to miss work. The problem is that recurrence happens when the physician and patient do not stay on top of the disease. Later this afternoon, I saw my first, “lightning-induced cataract.” Apparently, lightning strikes people living on mountainsides in Nepal fairly often.
FEBRUARY 8
I had my first day in the operating room today! Two of our patients had horrible diabetic retinopathy with hemorrhages in their eyes and retinal detachments. The TIO retina specialist removed an advanced cataract. This was interesting because in the States, that patient would have been referred to a cornea specialist. The need for eye care in Nepal is so great that even retina specialists help with cataract patients.

The setup for cases at TIO is intriguing. When one surgery is over, the next patient is standing in the operating room ready to lie down on the table. While the new patient is lying down for his or her surgery, the surgeons and scrub technicians change sterile gloves, leaving the same gown on. It’s incredibly efficient if one can keep from contaminating instruments and gloves during the switch.

FEBRUARY 9
What a day! I met Dr. Reeta Gurung, a cornea specialist and the CEO of the hospital. When I mentioned that one of my goals was to learn small incision cataract surgery (SICS), she invited me to participate in an outreach medical eye camp (OMEC)! These camps are a great way to help the underprivileged in rural parts of the world with limited access to medical care.

FEBRUARY 10
One of the most serious eye injuries we see in ophthalmology is an “open globe.” A crucial aspect in treating this is to get it closed immediately, usually within hours. Two of the patients today had been walking around with open globes for 5 and 6 days, and the third for 11 years. They could not come in sooner, as they live in rural areas and the journey to the hospital is long and arduous. While I have been constantly impressed by the high quality of care in Nepal, it has been evident, and even more so today, that one of the fundamental issues here is access to care.

FEBRUARY 11
These clinics are full of surprises to my Western eyes. Today there was another child with an open globe, this time from a stork attack! My attendings said they see this about once per month. We took this young girl to the OR, closed her wound, and injected antibiotics into her eye. She will likely need further cataract and retina surgery. Her injury made me think about the differences in trauma between Nepal and the US. All injuries I’ve seen at TIO have been accidental. Most injuries I see in the US are results of fist fights, gunshots, or car accidents often involving drunk driving. In Nepal, injuries are sadly most often the result of poor infrastructure and unsafe workplaces (and storks run amok of course).

FEBRUARY 12
After 7 hours of riding on a crammed bus with my knees to my chest and my head bent at a 90 degree angle, we arrived in Nuwakot for the OMEC. The team, consisting of physicians, nurses, technicians, and maintenance workers, is very enthusiastic. We inspected the old abandoned clinic and got to work putting together surgical beds, operating microscopes, cleaning the rooms, and sterilizing instruments. While I was working to put beds together, others were setting up a kitchen under a tent on the roof and then prepared dinner! I started thinking about where I was going to sleep, since by that point, I was exhausted. According to one of the residents named Shashwat, the team often sleeps on the ground. Since it was raining, however, they made an exception and we went to a hotel.

FEBRUARY 13
People were lined up into the street as we pulled up to the clinic at 7:00 am. Drs. Sanjita, Shyan, and Shashwat began operating at once with assistants, nurses, and other volunteers giving patients their medications and dilating drops and walking the patients to the operating tables. We did cataract surgery for 99 patients today.
FEBRUARY 14
We kicked off the day by seeing our post-ops! Smiles were plentiful as we removed bandages from people’s eyes. It was amazing to watch people see for the first time in years. The OR quickly got into full swing again. The TIO team was working quickly to accommodate everyone who needed help. Another 100 or so patients received surgery today. We were off to bed after another feast prepared by our team of cooks.

FEBRUARY 15
We began the day again with post-ops, then dove into a full day of surgery. Dr. Sanjita had me take the reins and operate! The technique used at OMECs for cataract surgery is quite different than what we do in the States. They do not use the large machines that we do, but rather an elegant procedure that takes quite a bit of practice. The two cases that I completed made me realize the technical challenges for cataract surgery. Dr. Sanjita and her team made it look easy, but it is really a procedure that demands practice and patience!

After we treated the last of the patients, the cooks prepared a great meal for us. The rain actually stopped for a bit, so we brought our chairs around the campfire and many local residents joined us. A schoolteacher stood up and thanked us for coming, and a man broke out a drum and a tambourine and people sang and danced for the rest of the night. I may or may not have shown off some of my weak American dance moves.

FEBRUARY 16
Last day at the camp. We saw our post-op patients; they looked great and were extremely happy. This is really the best part of the trip – it’s why everyone wants to come and help out. A profound difference is made when vision is restored, and not just for the individual patient, but rather the patient’s entire family. The blind are usually accompanied by a family member, often a child or grandchild, who is assigned to help them. When vision is restored, that family member is now free of the care-taking responsibilities, and major burdens are lifted from multiple people. In the past few days, we performed over 300 cataract surgeries!

FEBRUARY 17
It is amazing how everyone has jumped right back into their roles at the hospital. Dr. Sanjita did two retina surgeries, followed by a retina clinic this afternoon. Many of the technicians returned to their various clinics, and Drs. Shyam and Shashwat went back to their comprehensive ophthalmology clinics. To me, the OMEC was an adventure and an incredible learning opportunity. To them, it was their duty: a routine service to those around them less fortunate.

FEBRUARY 21
I made it home! It’s great to see my fiancée again and be able to drink out of a faucet! I already miss my friends at Tilganga, but I will get to see Dr. Sanjita soon. She is going to complete an International Observership at the Moran in August, and I can’t wait to return her gracious hospitality when she arrives. What an incredible experience this all has been. I spent large parts of my flights home brainstorming how I can implement what I learned in Nepal into our OMECs in Utah to areas such as the Navajo Nation. The trip was everything I had hoped for. It was a great experience, and it has instilled in me concepts that can be used on future outreach expeditions. It fanned the flame of desire for further international work. Thank you to everyone who helped make this trip possible and thanks to everyone in Nepal for being the most generous hosts I could have asked for!