Participation in the 2018 American College of Surgeons Traveling Fellowship to Japan was a fantastic opportunity for the exchange of science and ideas related to gastric cancer surgery. But bringing gastric cancer to Japan is like bringing beer to Newcastle as the country is an established leader in the screening, staging, and resection of gastric adenocarcinoma. And don’t try bringing beer to Japan either as they have plenty of it, and along with sake will offer it in abundance when they take you out for dinner. The culture of hospitality in Japan was perhaps my sharpest lesson, and I will forever strive to offer visitors to my institution a similar experience.

A Visit to Shizuoka Cancer Center

Professor Masanori Terashima, Chief, Division of Gastric Surgery, and Chair, Stomach Cancer Study Group, Japan Clinical Oncology Group, and his colleague Dr. Irino, welcomed us to Shizuoka and I had the pleasure of observing a proximal gastrectomy with double-flap esophagogastrostomy. It should be noted that proximal gastrectomy has been largely abandoned in the West due to concerns over disabling reflux and inadequate lymphadenectomy and margins for diffuse type advanced gastric cancer. The novel technique of double-flap reconstruction is an attempt to prevent gastroesophageal reflux and maintain quality of life for patients with early gastric cancer. It was an exquisite laparoscopic surgery utilizing meticulous surgical technique with high-quality 3D imaging and fantastic visualization. The procedure focused on maintaining quality of life after resection and is appropriate for patients with T1 stage malignancy. Lesson number one from the traveling fellowship is that gastric cancer in the United States and Japan is different. Early T1 lesions account for approximately half of gastric cancer in Japan, but constitute 5% of my practice in gastric adenocarcinoma at MD Anderson. During my time observing experts in gastric cancer at centers in Japan, there appear to be differences in incidence, biology, screening, pathologic classification, tumor staging, and treatment compared to the cancer I treat in the U.S. With Mt. Fuji as a backdrop, Shizuoka Cancer Center was a beautiful center to visit and witness a cutting edge laparoscopic surgery performed by one of the experts in the field. I also had a chance to tour the facility and the call rooms in Japan offer a different perspective on the comfort of a bed, as shown in Figure 1. The residents probably don’t use the call room much as they are diligent students of anatomy and surgical planning. The preparation of trainees in surgery in Japan is inspiring, as shown in Figure 2 illustrating the vascular anatomy of the liver that a resident prepared for resection of a cholangiocarcinoma.

A Visit to Cancer Institute Hospital

Professor Sano, Deputy Hospital Director, Department Director of Gastroenterological Surgery, and his colleagues Dr. Masayuki Watanabe, and Dr. Koshi Kumagai welcomed us to Cancer Institute Hospital in Tokyo to observe a complex, multi-team surgery for a patient with two separate primary cancers involving the esophagus and stomach requiring total esophagogastrectomy with colonic interposition graft reconstruction. Professor Sano was gracious in giving us a lecture summarizing the Japanese lymph node staging system and providing an update on clinical trials in Japan. Lesson number two from the traveling fellowship is that we can learn many lessons from Japan that can be incorporated into the treatment for patients in the U.S. Gastric cancer is a rare malignancy in the U.S., not even in the top 10, and we will need to determine how lymph node classification, minimally invasive surgery, and staging
procedures translate from the East to the West. Professor Sano would also be classified as a “foody” according to U.S. guidelines for an individual with a particular interest in fine dining, and took myself, Dr. Watanabe, and Dr. Naru Ikoma to one of Tokyo’s many excellent restaurants [Figure 3].

A Visit to Keio University Hospital

Professor Yuko Kitagawa, and his colleagues Dr. Tsuda and Dr. Kawakubo, allowed us to observe a robotic total gastrectomy and laparoscopic subtotal gastrectomy over two days. Robotic gastrectomy was approved by the national insurance system of Japan just a few days prior to my arrival and therefore will likely experience a rapid expansion across the country. My visit to Keio allowed me to achieve one of my main goals of the fellowship – to observe the standard laparoscopic lymph node dissection technique in Japan. It should come as no surprise that the body habitus of Japanese patients is quite different from American patients which leads us to Lesson number three in that caution is needed in performing MIS surgery for patients with gastric adenocarcinoma in the U.S. with a critical emphasis on maintaining the same oncologic principles margin status, tumor manipulation, and lymph node dissection as open surgery. This issue is particularly important for resident and fellow training as there are many centers in Japan that perform over 400 gastrectomies a year for cancer, while there are few in the U.S. that perform over 40 a year. The hospitality of Professor Kitagawa and his colleagues from Keio is evident in figure 4.

The 118th Annual Congress of The Japan Surgical Society

The Japanese culture of hospitality was alive and well at the Japan Surgical Society as I was invited to the opening dinner of the JSS, and also the presidential dinner where I had the chance to interact with leaders in surgery from not only Japan but also around the world. Professor Takao Ohki, Chairman of the International Committee, was a gracious host and the traveling fellowship was extremely well organized. The lectures at the JSS were fantastic, and many were focused on my specialty of gastric cancer. As another testament to the early diagnosis of gastric cancer in Japan, almost as many patients undergo endoscopic mucosal resection or submucosal dissection (51,000) as undergo gastrectomy (57,000). Metastatic disease is found in a minority of patients (30,000) but with similar dismal outcomes compared to the U.S. and Europe. A group of dedicated investigators, including Dr. Hironori Ishigami and Professor Joji Kitayama, are investigating intraperitoneal therapy for disease metastatic to the peritoneum (Figure 5). Their work has many potential applications for trials in U.S. and hopefully we have started a collaborative relationship that will allow us to exchange science and ideas in the future. Which leads us to Lesson number four – we have the same problem of limited survival in patients with metastatic disease and team science, and hopefully international team science, will allow us to improve upon this dreaded disease.