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Medical Internship and Study Abroad
Stories and Reports from Albany State University (ASU), Albany Georgia

“Tropical Pathology and Infectious Diseases Study-Internship in Cusco Peru”
Brittany Swait
Biology major-senior, Albany State University

Introduction
The Tropical Pathology and Infectious Disease Association (TPaIDA) is a Peruvian private, educational organization designed to educate students in the basic science, diagnosis, and treatment of infectious tropical diseases while providing medical assistance to other countries. TPaIDA offered us an intensive 8-day medical internship in tropical medicine and infectious disease, which was taught in Cusco, Peru. The course consisted of clinical rotations, lectures, a jungle clinic, lab rotation, day with a local shaman, and an optional tour of Machu Picchu. At the end of the program, we had a Christmas party that was held for children without parents and those with terminal illnesses.

Objective
The objective of the program was to help undergraduate students majoring in health care, professional health care specialists, and pre-medical or medical students acquire hands on clinical and laboratory experience in the treatment of tropical diseases.

Activities
Upon arrival, we were divided into groups of six. I was
placed in group E, which consisted of Destiny DeJournett, Michaelean Vorapanic, Jordan Showell, and myself. I was able to participate in seven different clinical sessions which included: Gynecology, Neurology, Emergency Pediatrics, Obstetrics, Laboratory, Suturing and Medical Surgery. Each day we visited twenty to forty patients, depending upon the area of study.

During my gynecology round, the doctor discussed with us the health differences between women that are from the inner city limits, those that live in the mountain and those in the jungle. He also stated that many of these women were more susceptible to certain diseases and sexually transmitted diseases depending on where they live. I learned that the girls that came from the mountains or jungle were more sexually active than those that came from city limits due to the lack of conformity by the general public to practice abstinence. Because of this, girls from ages 13-18 were more prone to pregnancy and sexually transmitted disease.

Neurology was also a very interesting clinical round for me as well. During our neurology rounds there was a young boy, ten years of age, who was a victim to a bacterial infection of the brain. He had no family, was blind and had no way of affording the medication that was needed to sustain his life. Even though he was not able to see my facial expressions, he was able to feel the compassion and comfort that I was trying to provide him.

Emergency pediatrics was the most interesting
field that I experienced during my stay in Peru. I got a chance to work with children of all ages; I even played Barbie dolls with a young girl named Maria, who was in for a broken femur. Later that day, as I was standing outside of Regional Hospital, I heard a two-year old child screaming and crying for attention. As I made my way to the child, I noticed that his parents were nowhere to be found and both of his legs were broken. I went to the child, and tried to comfort him but every attempt ended in failure. So, I purchased him a Peruvian chocolate bar and tried to calm him down. We later took him inside the hospital, changed his diaper and gave him food and water. Luckily, his father showed up about twenty to thirty minutes later, so I didn’t feel so bad about living him at the hospital alone. The fourth day in Peru our group focused more on obstetrics.

Obstetrics
For the obstetrics rounds, we stayed in the office and visited 15-25 pregnant women. There was a woman that was 42 weeks pregnant and was scheduled for a C-section that weekend. The doctor said that if the baby stayed inside the womb for one more week he would die from a lack of oxygen.

Laboratory Lectures
For the laboratory lecture, we met with Doctor Rollin’s wife and discussed different types of bacteria and the proper cultures on which to grow them. Suturing was also another interesting LAB activity. During this laboratory meeting, we cut and sutured pig feet. The last thing that I was able to be a part of was the medical Charismas party and Charity Work for Children at Cusco Regional Hospital.
surgery round. This round was extremely special to me because I was permitted access into a surgical area where I was able to watch and participate in an operation.

Jungle Clinic: The jungle clinic was one of the smallest clinics that I saw during my stay in Peru, and was also one of the poorest. The delivery room that I viewed was located in the back of the clinic in a shed. Before leaving the clinic, we stopped by the emergency department to take a quick look at their ambulance. This mode of transportation was defiantly, "third world!" When we opened up the back doors of the ambulance, we saw a foam mattress in the truck that contained traces of blood and other bodily fluids that we would definitely not see in the United States of America. After the jungle clinic, we proceeded into the depths of the jungle to test our physical capabilities.

Adventure in Machu Picchu during the TPaiDA Study-Internship
The next day I headed to one of the Seven Wonders of the World Machu Picchu. Machu Picchu is located in the Cusco Region of Peru. It is situated on a mountain ridge above the Urubamba Valley in Peru, which is 50 miles northwest of Cusco and through which the Urubamba River flows. Most archaeologists believe that Machu Picchu was built as an estate for the Inca emperor Pachacuti (1438–1472). Often referred to as the "Lost City of the Incas", it is perhaps the most familiar icon of the Inca World. The Incas started building the "estate" around AD 1400, but abandoned it as an official site for the Inca rulers a century later at the time of the Spanish Conquest.

Conclusion
If I had to sum up this entire trip in one word, I would have to call it “a blessing.” This medical mission to Peru was a valuable experience that not only introduced me to the basic science and clinical practice of infectious diseases, but it allowed me to gain a humanitarian experience in South America. This experience provided me with all the necessities needed to become a future medical leader in this society. I would definitely recommend this internship to anyone that is up for the challenge and is ready to step out of the boat.
Welcome to Cuzco, Peru: one of the Seven Wonders of the World. Congratulations, you’ve just jumped off of the boat” (Dr. Lane Rolling). The water under the boat was mighty steep! We began our internship with a lecture on bacteria, infectious diseases, and an intensive comparative discussion of the over-sanitation and practices of America’s hospitals versus the under-sanitation and practices of other countries. Apparently we’ve been fooled! Due to Dr. Rolling’s research, he concludes that neither Neosporin, 409, or Pine Sol disinfects and works in cleaning out bacteria, but they only spread bacteria profusely. His experience presented that alcohol is the safest solution for sanitation, and it works for every kind of cut, gash, and infection. That knowledge was a wonderful awakening in noticing America’s persistence in acquiring money through medicine, though it seems that our practices work just fine. At the least, my floor seems clean after using Pine Sol, and it definitely smells great!

Furthermore, we were introduced to what the next eight days would consist of: long days, smelly hospitals, surgeries, child births, and an exclusive look at Peru’s largest health problems, which are quite different from the health problems of the United States.

Shortly after, we were given an exam consisting of forty questions that inquired information on bacteria, diseases like AIDS, Cancer, Dengue Fever, and the most common, Tuberculosis, the differences between prokaryotes and eukaryotes, and our opinions on medical practices between the Chinese witchdoctors, Peruvian shamans, and general pharmacists. Each day, we reported to a hospital at eight o’clock and finished rotations around eight or ten in the evening, including breaks and lunch. With each doctor, we viewed about ten to twenty patients a day, depending on the hospital and the amount of patients that needed care. There were at least three different wards to view each day, and
sometimes we visited separate hospitals to see the other wards. One moment you’re a neurologist, the next you’re a gynecologist, a trans-neurosurgeon, a pediatrician, and then an emergency doctor.

The most interesting experience from my rotations was viewing a patient, a four-year old girl who had Dengue Fever and Tuberculosis. Because of the harsh combination, the child had fluid in her lungs, an enlarged heart, a bad kidney, a bad liver, gastritis, and no appetite. She had been in the hospital for several weeks, and I was informed that her condition was actually better than when she arrived. Her mother brought the child from a jungle three hours away, and in order to afford transportation, she had to leave her nine-year old son in the jungle by himself.

Her occupation is collecting coca leaves and selling them by the bundle, but it wasn’t enough for her to afford travel and food for everyone. Noticing the woman’s small size, the doctor inquired to why she was so skinny. The mother said that she couldn’t always afford food, so they had to chew coca leaves for days at a time. The reason she brought her daughter so far was because the local shaman was using natural medicine (plants), but it came to a point where the disease adapted to the medicine and became stronger, therefore, she had to bring her daughter to a more advanced setting to combat the fever quickly. The last day we came to the hospital, the girl and her mother were gone, and the doctor told us that she was well enough to leave and live.
I really enjoyed the program, though there were some things that could have been done differently, yet could have is conditional, so things were different. Despite the struggles between the hotel owners and some of the students, the translators that live their lives capitalizing on unaware tourists, and the confusion in some of the cultural tours, the program served its purpose.

These experiences taught us some valuable lessons: every living condition, type of food, commodity is not the same, and definitely not American. Hustlers are hustlers, and hustlers hustle; it is our jobs to be aware of the games. Most importantly, do not expect the atmospheres to be always equal where ever you go. We must adapt to all conditions and grow as they change.

Expectations can be quite dangerous when travelling.

Many people would have been afraid to enter into a hospital with little sanitary conditions, no ventilation, and a strong odor. On the other hand, there was our strong group of individuals who shook off fear and viewed things unimaginable with others.

For me, I went to Peru; I didn't get sick and I didn't die. I drank the water in Peru; it was weird and killed my taste buds, but I didn't get sick and I didn't die.

I ate the chicken, the beef, and the pork in Peru; I didn't get worms, I didn't get sick and I didn't die.

I went to the jungle and climbed a mountain in Peru; I was bitten by several mosquitoes, but I didn't get sick and I didn't die.

I got lost in Peru; I didn't panic, I didn't get kidnapped, and I definitely didn't get sick and I didn't die.
The moral of the passage is: If you're scared, say you're scared, and stay at home. We'll be out experiencing life while you can stay indoors, fearing every non-American, every slice of pork, every drop of water, every beautiful sensation of another. Leave your assumptions and bring your open-mindedness. It's time to live!!! Oh and I rubbed numerous dogs on the street; I didn't get rabies, I didn't get sick and I didn't die!
Abstract:
The purpose of the TPaiDA program was to provide clinical studies of infectious diseases in global healthcare. The objective is to allow students to work under doctors and assist in various procedures to gain hands on knowledge and experience in clinical treatment. Students were sent on a number of rotations to learn strategies in understanding the concepts of basic pathology of these infectious diseases. In addition to the rotations, lectures were implemented with round table discussions to reiterate what was observed while out in the field. Throughout my rounds and observations, I learned the biology of disease causing organisms such as bacteria, fungi, protozoa, viruses, and helminthes. Many of the diseases caused by these organisms are diagnosis resulting from the environment. The sanitation practice is not sufficient, and this affects the overall quality of life. Peruvians also don’t have access to the same healthcare as in the states, so some sicknesses that may be minute are actually more detrimental because they cannot be detected sooner than later.

Peru- TPaiDA Study Internship:
Learning the pathology of infectious diseases in Cusco, Peru expanded my perception of what healthcare is truly about. I was introduced to new ethics in administering patient care. This program has changed every aspect of my life across the board. I am now more knowledgeable in clinical science. I have also witnessed another side of healthcare outside of administrative
responsibilities. Throughout this experience my ability to be culturally aware and effectively communicate through language barriers has improved as well.

During the first day of making rounds, my group was assigned to Gynecology. This was an exciting event being that my passion is women’s health. I learned very quickly that the women of Peru deal with many issues women of the US endure. The doctor couldn’t speak English fluently however the translator was able to explain in detail the symptoms, diagnosis, and treatment for each patient. I didn’t speak Spanish, however body language speaks volumes. I learned to communicate in other ways to provide quality.

The group spent about six hours before heading to lunch, only to return to General Medicine for another four hours of work. In General Medicine, we observed many patients suffering from kidney stones and those who had severe cases of diarrhea. During observation, I noticed the facilities were not up to expectations in sanitation. The rooms appeared to be unclean and the utensils weren’t sterilized after use with each patient. I began to wonder if this has something to do with many of the bacterial infections in many of the patients. If this wasn’t something the natives practice in hospitals, this could just be a habit of making no effort in sanitation. After a long day of work there were lectures given in the evening to evaluate the experience and material learned during the rotations.

As the days went by and students continued to make rounds, my group was able to hands on training in suturing techniques. Each of my group members were given a pigs foot to cut open and sew close again. All materials needed for the procedure were given such as needle, thread, scissors, scalpel, needles, and anesthesia. One of the surgeon’s named Jorge conveyed the nitty-gritty of surgery. I learned the basic rules for administering anesthesia and the proper way to sew an open wound.

Laboratory Experience: After surgery we headed out to the lab for the basics in lab work. Students were able to gather swab samples of each other to check for any type infections in mucus of the mouth. The Biologist and lab tech also showed us how to accurately test urine.

Above: Testing urine samples in laboratory. This type of hands on experience has shown me a more in depth look into healthcare. I expect to take this newly found skill set and utilize it in my medical career.
Laboratory Experience:
After surgery we headed out to the lab for the basics in lab work. Students were able to gather swab samples of each other to check for any type infections in mucus of the mouth. The Biologist and lab tech also showed us how to accurately test urine.

The jungles of Quince mil:
In addition to working in the hospitals, we were also exposed to the jungles of Quince mil. This was an experience within itself. The journey of hiking two miles to get to the mountain was extremely challenging. The mountain was a symbol of success. The word team was truly defined. Though there were many times were many students wanted to give up, the others wouldn’t let them. Climbing through the trees on the mountain was synonymous to getting through the trials and tribulations of life. It was very hard and at one point I lost my breath and even threw up. However, I never gave up. I was determined to finish what I started and support my team to finish as well. Once we successfully climbed the mountain and made it back down, I felt a massive amount of liberation.

Surprisingly I had the drive to keep going. During the hike back to the bus I breathed a different air and walked a new walk. I now have a determination that will guide me throughout my career.

Furthermore, my overall experience in Peru was priceless. My time spent working under doctors and embracing the Peruvian culture will be with me the rest of my life. I have learned a lot about myself and others. This knowledge will set me apart from my competitors once I am in my career field. I would recommend this type of program for future students, however, not this particular program. I would not recommend TPaiDA for numerous reasons; however, I absorbed all that I could and will continue to implement the lessons learned.
Above: Feeling like a warrior after the hike!

Above: Site seeing in Plaza de Armas!
"I never thought that I would have the opportunity to travel abroad. When the chance presented itself to go to Peru, I reached out and grabbed it. I found it very helpful to build personal relationships to get a cultural “understanding” Brian Souffrant (2011).

by Brian Souffrant
Biology major-junior, Albany State University

TPaIDA is an educational organization designed to educate students in the basic science, diagnosis, and treatment of infectious tropical diseases while providing medical assistance to other countries. TPaIDA offers an intensive 8-day medical internship in tropical medicine and infectious disease, which was taught in Cusco, Peru (9-10 days with travel). The course consists of clinical rotations, lectures, a jungle clinic, lab rotation, and a day with a local shaman. The curriculum was developed by TPaIDA TM, Inc. faculty member Dr. Lane Rolling from the U.S. and other members from Peru.

Studying abroad has often seemed to be privileges reserved for undergraduates who are not busy, completely focused, and have a surplus of money. But times are changing, experts say. "To be a competent professional and to be competitive today, you need international experience." I never thought that I would have the opportunity to travel abroad. When the chance presented itself to go to Peru, I reached out and grabbed it. I found it very helpful to build personal relationships to get a cultural “understanding”.

When I arrived in Cusco, I went straight from the airport to the hotel to get my housing assignment, fill out paperwork, and get information about the orientation. The housing coordinator was very nice and accommodating, and was very helpful if you have problems with your room. The Orientation began as soon as our rooms were situated, the day before clinical rotation started, which just outlined how the program worked and what would be required of you, etc. We also received our final exam on the first night. It included 40 questions covering various thing we would encounter during our time in Peru as well as basic things that would refresh our memory. The program provided 2 meals a day, but there were some things that were missing. As far as transportation, we had to pay for taxis that would pick us up and drop us off at the various hospitals. Since the hotel did not provide dinner, it was a meal that the students had to decide on.

The following day was our first day on the program. We were divided in groups of 4-5 each. My group of 5 went to the Regional Hospital to shadow the operating surgeon in the trauma unit, where we witnessed 2 surgeries. The first patient attempted to commit suicide by cutting his wrist. In the process, he severed two tendons connecting his ring and pinky fingers. Dr. Mina, the operating surgeon, had to reconnect the fingers before closing the wound so the man could have complete use of his hand again. Because of the condition of the hospital, supplies are not as readily available as they are in the United States. He was given a local anesthetic in order to numb the area, but he was not put to sleep. The surgeon was forced to work on the patient that way because all medical actions are paid for by the government. The allotment for each patient is low; therefore, that is all that could be afforded to him. One of the most important lessons we learned was related to healthcare. Healthcare isn’t something that is guaranteed for everyone.

A few minutes later, I met a patient with a more serious case. He had seriously cut himself in the jungle. Before walking 18 hours to the nearest hospital, he wrapped his wound with gauze in order to stop the bleeding. By wrapping the wound, he created a breeding ground for anaerobic bacteria that caused necrosis. The leg had to be amputated in order to save the man’s life. For two hours the doctors burnt the tissue and cauterized all blood vessels. He was awake for the whole surgery. He was given a general anesthetic which numbed his whole body, but left him conscious for the whole surgery.

Figure 1: A patient was given a local anesthetic in order to numb the area but he was not put to sleep.
Laboratory Experiences:
Two days later, we had our first laboratory session. We discussed the differences between gram positive and gram negative bacteria. We took sample from our classmates by using mouth swabs. We were later informed three of our classmates were infected with streptococcus causing strep throat. At the end of that evening, we had a surgery lab where we had the opportunity to practice administering anesthesia and suturing a wound on a pig’s foot. I was excellent at suturing, but I had trouble using the syringe.

Experiencing a patient with tuberculosis, aids, and a mucosal cutaneous infection:
On Friday, we saw a patient who had tuberculosis, AIDS, and a mucosal cutaneous infection. He was infected with the disease 10 years earlier. The AIDS virus weakened his immune system allowing the infection to destroy his face. He wore a face mask to hide his face from everyone else. The diseases that I saw in Peru weren’t only physical, but emotional. Having these life changing ailments and diseases can really be detrimental to one’s spirit. There were patients who would lie in bed crying every night because they were abandoned by their families due to the severity of their injuries.
The Jungle Expedition:
That evening, we left for our jungle expedition. It took 6 hours to reach the jungle because it was so high up in the mountains. The hospital conditions only continued to worsen once we reached the jungle clinic. The villagers were infected with dengue fever during the day and malaria at night. The mosquitoes were the vectors of transmission for the disease. Before the doctors could treat the patients, they were dying due to the frequency of mosquito bites. The only thing they can do to deter the mosquitoes is spray pesticides every 3 days to lower the number of disease carrying mosquitoes.

Program End:
On Monday, the final exam was due. The whole time I had forgotten about the assignment because of the clinical rounds. I began working, thinking it would be the hardest test of my life with it turning out to be the simplest. Every answer had been discussed in detail by each doctor; I worked with everyday making it much easier than I thought. Everything that I learned from the course work was directly related to the curriculum or acted as a refresher course, which I really enjoyed. I was able to finish the exam on Sunday night after returning from the expedition.

I absolutely loved going abroad for many reasons. I had the opportunity to live on my own, to really learn about myself in a strange atmosphere, the chance to live in another culture and gain a different perspective of the world, and make friends from all over the world. Not many people during college have the time to live somewhere else even for 2 weeks, so it’s an experience to really cherish. Be outgoing, try new things, and know that things won’t always go as planned but they always work out anyway. I’m so glad I did this particular program because it really fit my needs as a student and as an individual.
Abstract:
The Tropical Pathology and Infectious Disease Association (TPaIDA) is an educational internship based in Cusco, Peru and Iquitos, Peru intended to teach undergraduate students basic sciences and the roles of physicians in well-deserved and underserved areas of Peru. TPaIDA course includes clinical rotations, lectures, a showing of a jungle clinic, jungle hike, laboratory rotation, and a local shaman lecture. The program consists of eight working days in hospitals and clinics and one-day trip into the jungle. Students shadow and do medical rounds with the local area physicians in hospitals in Cusco. The course curriculum/objectives entail the following: the comprehension of basic pathology of infectious disease and the major organisms responsible for human infectious disease, the clinical treatment of infectious disease and the effects of infectious disease have on geographical and cultural climates of the world, and the understanding of different methods to essential science and clinical medicine in another culture.

A. Introduction:
The TPaIDA internship in Peru provided an educational outlook of the medical field as well the understanding of a completely different and strong culture. The program was filled with daily shadowing of interactions between physicians and extremely sick patients. The lectures and rounds with the physicians made me feel like I was in medical school.

B. Course Objective:
• Understand the basic pathology of infectious disease and major organisms responsible for human infectious disease.

• Knowledge of clinical treatment of infectious disease.

• Understand the affects that infectious diseases have on geographical and cultural climates of the world.

• Understand different approaches in clinical medicine in another culture.

C. Daily Activities:
The first day of clinical rotation was with Dr. Jose Fuentes. He is a compassionate neurosurgeon with a background in general surgery. We observed and followed him on his rounds with ten of his patients at Regional Hospital. The first patient was a 67-year-old man from the village where the altitude was even higher. He had an infection, abnormal blood results and back pain. He was found unconscious on the ground in one of the villages of Cusco. He was in need of physical therapy, which was provided by his family. At the Regional Hospital, no rehabilitation services were available due to financial obligations at this hospital. The second patient was a restrained, confused 71-year-old man. He was from the village of Cusco where he fell and became unconscious. His x-ray showed a rather large blood clot in the brain and awaiting surgery until he gains stable condition. Another patient of his was a 35-year-old male in car accident where eight people died and he was the only one alive with no forms of paralysis but many blood clots in the brain, and no surgery needed. The patient was stressed and worried thinking about his family because they don't know where he is and unable to contact them. A patient that stood out for me was a very young blind boy that was dropped off by nuns and had brain surgery that left a hole a size of a tennis ball in his skull. Even though he was somewhat cheerful, the hospital did not have enough money to treat him with a special cream that was necessary for his healing process.

The day ended with a lecture, at the hostel, with Dr. Lane Rolling where we learned about a variety of common tropical diseases, bacteria and parasites. He also broke down the major differences of prokaryotic and eukaryotic cells. He focused on transmissions and vectors of global tropical diseases. He also gave us a forty-question assignment on clinical pathology and basic science of infectious diseases.

On day two we shadowed Dr. Vargas, a gynecologist at Essalud Hospital. While observing Dr. Vargas, I noticed how incredibly nice and sincere with her patients. I saw a total of eight of her patients that day. I was able witness a few procedures with her for example mammograms, ultrasounds, and IUD removal and a 46-year-old lady with three kids and three miscarriages with complaints of no menstrual cycle in twelve months. She complained of urinating when coughing or laughing. She also had an IUD placed, so Dr.Vargas removed it and explained to her that it should stop the urination and that she is in the menopause stage.
Another patient of hers was a 42-year-old woman with no children and no miscarriages suffering from hypothyroidism and a removal of her uterus and right ovary due to cancerous cells in them. She wanted a sonogram on her left ovary and mammogram because she was anxious of cancer cells might be present and wants to make sure she was okay. She was also very sad and weeping for the reason that she desperately wants children of her own. Dr. Vargas enlightened her with other options and made her laugh during the conversation and relaxed her with kind words. On the next day we were with Dr. Rocio Sanchez, general medicine doctor, at the private hospital named Metropol Essalud. She saw twenty patients in four hours. She listened, examined, and took her time with every patient. Her patients ranged had symptoms from headaches to colon infections. She also saw patients suffering from osteoporosis, scoliosis, testicular cancer, breast pain, and Parkinson’s disease. Later that day, I went on laboratory tour with Dr. Sany Benites and biologist Violeta Zanoni where they lectured on different bacteria and how they test bacteria like staphylococcus aurea or E.coli. They also clarified the steps in antibiotic resistance and antibiotics effectiveness on certain bacteria. They lectured on the significances and what to look for on all the blood cells in the body. They demonstrated some test using a compound microscope. Dr. Ramiro Hermosa, surgeon, explained the principles of suture placements. He showed us how to apply lidocaine, a numbing medicine and learning how to apply a suture by practicing on a pig’s foot.

D. Other activities:
We stopped by a small jungle clinic that was vacant and seemed quite old, abandoned and unsanitary. The visiting doctor there at the time showed us a brief tour on the maternity ward and the rooms for the patients and emergency surgery. We learned that the staff also sleeps there at times since its three or more hours from the nearest town. While still in the jungle area we did a 6 to 7 hour rigorous and intense hike which put determination, perseverance and teamwork to the test. Another cultural planned and separate tour was Sacred Valley. The Sacred Valley tour included a visit to the Pisac market, the ruins at Pisac, and a stop for lunch in Urubamba, a visit to the beautiful Inca village of Ollantaytambo, and the Quechua village of Chinchero. At the Pisac ruins I saw beautiful stonework, cut solid rock and water ducts. Chinchero was a small Andean Indian village with views overlooking the Sacred Valley of the Incas.

In conclusion, Peru and the TPaIDA internship was a great and knowledgeable experience. I was able to observe the medical field and had hands-on experience that prepared me for my medical future career. The TPaIDA experience confirmed my decision of being a professional and humble medical doctor. TPaIDA went beyond basic lectures and enhanced my learning understanding to another level.
The TPAIDA study-internship medical program in Peru involved 25 students from different universities in the United States. They all participated in an intensive medical and cultural learning program in Cusco, Peru. Nine of the students in the program were from Albany State University, accompanied by two faculty members, Dr. John Williams a faculty member in the Department of Natural Science and Dr. Nneka- Nora Osakwe, the Director of Global Programs. The main goal of the program was to provide students the opportunity to experience healthcare practice and needs in a developing country and to acquire practical educational experiences in tropical pathology and infectious diseases. The major program expenses were funded by the Office of Research and Sponsored Programs and ASU Foundation. Global Programs funded local transportation to and from Atlanta, while students funded all their domestic flights and local transportation in Peru.

Program Activities:
The program engaged students in a section of rotated evening lectures, clinic and ward rounds observations, and diagnostic laboratory hands on experiences, and assignments. In the end, individual students had opportunity to go on clinical ward rounds with at least 4-6 different doctors in Pediatrics, Neurology, Gynecology, Emergency, Trauma, and General Medicine units. Each student shadowed different doctors as they clerked and diagnosed out patients. Reports from students indicated that they had varied observation experiences seeing patients in different hospital units. In addition, all the students, irrespective of study major, had practical hands-on clinical laboratory rotations, where they learned techniques that are commonly used in diagnosing bacterial infections using bodily fluid samples from mainly sputum and blood. The students visited the main hospitals in Peru and toured, especially the main laboratory unit in the ultra-modern Cusco Regional Hospital.

The short study-internship program was quite challenging and presented students with medical situations different from their normal experiences in the United States. Despite the tight schedule, the students had opportunities to also engage in tours of historic sites in Cusco city and beyond. Students also went on an adventurous jungle trip where they had exceptional life changing experiences. Please read students’ reports below.

Table 1: Albany State University Program Participants

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<th>Names</th>
<th>Major/Department</th>
<th>Classification</th>
<th>Career Goal</th>
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<tr>
<td>Amanda Muckle</td>
<td>Biology (Natural Science)</td>
<td>Junior</td>
<td>Medicine</td>
</tr>
<tr>
<td>Brian Souffrant</td>
<td>Biology (Natural Science)</td>
<td>Junior</td>
<td>Pediatrician</td>
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<tr>
<td>Brittany Swait</td>
<td>Biology</td>
<td>Senior</td>
<td>Pediatrician</td>
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<tr>
<td>Destiny DeJournett</td>
<td>English/ Spanish</td>
<td>Senior</td>
<td>International Law</td>
</tr>
<tr>
<td>Jessica Woods</td>
<td>Healthcare Management/Business</td>
<td>Junior</td>
<td>???</td>
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<tr>
<td>Kaiesa Peets</td>
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<tr>
<td>Omolara Akintade</td>
<td>Biology/ Natural Science</td>
<td>Senior</td>
<td>Medical Doctor</td>
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<td>Tola Akintade</td>
<td>Biology/ Natural Science</td>
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<td>Willie Young</td>
<td>English/ Spanish</td>
<td>Senior</td>
<td>Linguist</td>
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<td>Dr. John Williams-</td>
<td>Professor - Biology</td>
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<td>Assistant Program</td>
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<td>Coordinator</td>
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<td>Dr. Nneka Nora Osakwe-</td>
<td>Director of ASU Global Programs &amp; Professor in English</td>
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<td>Program, Coordinator</td>
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**Travel and Arrival:**
ASU TPaIDA Team members arrived to Lima by Delta airlines late at night on December 11, 2011. With no late flight to Cusco, the team stayed at the airport Starbucks until early morning and boarded the first flight to Cusco at 7:10a.m. At 7:15a.m. The team was airborne with The Peruvian Airline. It was a short flight to Cusco as the group landed at 8:45a.m. Even though the flight from Atlanta to Lima was a total of 6 hours and 36 minutes, and the local flight from Lima to Cusco was a mere 1 hour and 30 minutes, the whole flight time and arrival process with immigration check and baggage claim lasted until 12:10 a.m. The process was very tedious; more so because of the overnight stay at the airport and the altitude sickness experienced by almost everyone on arrival at Cusco.

*Omolara Akintade, Tola Akintade Amanda Muckle, Brittany Swait and Willie Young seated in anticipation as flight sets to take off.*

*ASU-TPIDA Team arrived at Lima Airport December 11 and waited for morning flight.*
Accommodation:
All the 27 participants of the program were housed in Astarga, an upcoming new Hotel at Ricardo Palma P-2, Urban Santa Monica, a location for distinguished well-achieved fellows in Cusco. The students were warmly welcomed with an evening orientation which started at 8pm. The orientation was moderated by Dr. Rolling and his wife, Dr. Benites Sani who provided an explicit guideline, program schedule, and course materials which were distributed to all participants in individual folders.

The Main Objectives of the Peru study-internship course as indicated in the program curriculum were to ensure that participants:

1. Understand the basic pathology of infectious disease and the major organisms responsible for human infectious disease.

2. Understand the basic, clinical treatment of infectious disease.

3. Understand and respect the effects that infectious diseases have on the geopolitical and cultural climates of the world.

4. Understand the various approaches to basic science and clinical medicine in another culture- Peru.

Daily Out-patient clinics, Ward Rounds and Case Conferencing:
The students were randomly placed in five groups of 4-5 students each comprising of students from different universities in the United States. The mixed mode was effective enabling ASU students to work collaboratively in groups of other students. Each group with an assigned interpreter headed to an assigned hospital at 8a.m. daily where they were welcomed by an assigned doctor from a specific hospital unit. After introduction, the group went forward rounds and out-patient clinic observations which embodied some lectures and case conferencing. This activity, which lasted for approximately four to five hours daily with lunch break at midday, was quite intensive and all the students expressed general appreciation for the opportunity to observe, examine, and interact with doctors regarding critical cases. The TPaIDA Doctors were generally very approachable, humble and were willing to explain peculiar medical procedures to the students.
Daily Diagnostic Laboratory Rotation: The diagnostic laboratory rotation was the next intensive and interesting aspect of the program. Each group of 4-5 students took turns for two hours, from 2pm - 4pm daily in experiential laboratory activities.

During clinical laboratory rotations, students learned techniques that are commonly used in diagnosing bacterial infections using bodily fluid samples, such as sputum, urine, blood, and vaginal secretions. These samples were assessed using plate methods, selective agar and media, and microscopic examination. In addition, students were informed of the key qualities of these samples that are important in determining disease onset. This includes hemolysis due to pathogen presence and other indicators commonly used. In addition to medical testing applications, the students were also taught several physical applied procedures, which included suturing. Using porcine meat samples (pigs’ feet), students were taught how to properly suture wounds using proper aseptic technique.

Assessment:
The clinical rotations and applications section of this program is, indeed, the strongest and most informative component. The students marveled at the experiences that they were able to enjoy as it relates to hands-on treatment of patients and working under the tutelage of licensed medical professionals in Cuzco. Additionally, the students were able to connect with patients in an effort to understand the value of compassion as it relates to treating patients and working within the medical community.

Evening lectures on Pathology and Infectious Diseases by Dr. Rolling
Dr. Rolling evening lectures were rendered in small 4-5 student-groups. In all, each group received an estimated 2-3 hour lectures which lasted mostly from about 7/8p.m. to 10p.m. each evening. The evening lectures presented through an overhead projector was on the same topic rotated among different groups. The mode made one-on-one interaction easy and comprehension easier, even though a combined group of ten each would have provided time to cover more topics. But understandably, space was a problem. The following topical areas were resented through lectures, questions and answers, and exciting interactive and conversational mode.
Historical and Cultural lecture from a Local Sherman:
The Peru Team members had an opportunity to listen to a rich historical/cultural story session from an indigenous Sherman. He told stories of the ethnic groups, the ancient people of the Incas, the guardian spirits associated with the shapes of the mountains that surround the sacred valley of the Incas. He narrated the origins of the sacred temples and spaces, the mysterious geographic accidents in the formation of skirts of lofty mountains, with peaks that are thousands of meters high. He recounted several associated mysterious powers derived by indigenes from following disciplined postulates of the spirits and taking herbs and shrubs, like the coca leaves from a plant which grows up to three meters tall with a foliage of oval leaves which once dried, are chewed to momentarily alleviate the sensation of fatigue and hunger. The leaves are said to contain carotene, riboflavin, thiamine, iron, calcium, cocaine and ecgonine, which contains atropine, an element that helps digestion. It was interesting to learn why on the first day of arriving Peru almost all the team members were weak and sick because of the high altitude and the cure was constantly drinking coca tea and resting.
Appendix 1: TPaIDA Faculty and Supervising Personnel in Cusco, Peru

Faculty/Supervising Personnel:

Dr. Lane Rolling, M.D., Director, Trauma and Infectious Disease
Dr. SanyBenitesVillasante, M.D., Clinical Pathology
Dr. YuryMonteagudo, M.D., Obstetrics and Gynecology.
  Dr. Jorge Galdos, M.D., Neonatology.
  Dr. Marco Carrasco, M.D., Pediatrics.
  Dr. Ludgardo Astorga, M.D., Pediatrics
Dr. Manuel Montoya, M.D., Infectious Disease.
  Dr. Ramiro Hermoza, M.D., Surgery
  Dr. Armando Eguchi M.D., Surgery
  Dr. Jaime Vargas, M.D., Medicine
Dr. Mario Cornejo, M.D., Plastic Surgery, Director of Health
  Dr. Ernesto Cazorla, M.D., Gastroenterología
  Dr. Jose Renan, M.D., Cardiology
  Dr. Nina Nelson, M.D., Trauma and Orthopedics
Dr. Carlos Caparo, M.D., Trauma and Orthopedics
  Dr. Jose Fuentes, M.D., Neurosurgery
  Dr. Percy Inga, M.D., Surgery
Dr. Moses Sihuincha M.D., Infectious Disease,
  Dr. Roberto Lazo M.D., Internal Medicine
Dr. Martin Chincha, M.D., Internal Medicine
  Dr. Jorge Danz M.D., Trauma,
  Dr. Martin Diaz, M.D., Pediatrics
  Violeta Zanoni, Biology

“Humanitarian Service with a Human Experience”
Introduction to the Clinical Pathology and Basic Science of Infectious Diseases
Albany State University
Albany, Georgia

Founded by Joseph Winthrop Holley in 1903, a unit of the University System of Georgia since 1932.

Accreditations:
- Southern Association of Colleges and Schools Commission on Colleges (1866 Southern Lane, Decatur, GA 30033) (SACSCOC)
- National Council for Accreditation of Teacher Education (NCATE)
- Council on Social Work Education (CSWE)
- American Academy of Forensic Sciences (FEPAC)
- National League for Nursing Accrediting Commission (NLNAC)
- National Association of Schools of Public Affairs and Administration (NASPAA)
- Accreditation Council for Business Schools and Programs (ACBSP)

Programs:

Undergraduate:
- Accounting
- Art
- Biology
- Business Information Systems
- Chemistry
- Computer Information Systems
- Computer Science
- Criminal Justice
- Early Childhood Education
- English
- Fire Service Administration
- Forensic Science
- Health and Physical Education
- Health, Physical Education and Recreation
- History
- Management
- Marketing
- Mass Communication
- Mathematics
- Middle Grades Education
- Music
- Music Education
- Nursing (RN to BSN)
- Nursing (RN)
- Political Science
- Psychology
- Science Education
- Social Work
- Sociology
- Spanish
- Special Education
- Speech and Theatre
- Supply Chain and Logistics Management
- Technology Management

Graduate:
- Education Specialist (Ed.S.)
- Business Administration (MBA)
- Criminal Justice (MS)
- Early Childhood Education (MED)
- Educational Administration and Supervision (MED)
- English Education (MED)
- Health and Physical Education (MED)
- Mathematics Education (MED)
- Middle Grades Education (MED)
- Music Education (MED)
- Nursing (MSN)
- Public Administration (MPA)
- School Counseling (MED)
- Science Education (MED)
- Social Work (MSW)
- Special Education (MED)
To further ASU’s mission of fostering diverse university programs and activities in order to realize its goal of educating students to become global citizens who are outstanding contributors to society, and to actualize Goal 3 of 2013-2017 ASU Strategic Plan: Leadership in community and global partnerships, the Office of Global Program stipulates thus:

To foster initiatives, activities, and events that will enhance diversity and help ASU realize its mission and goal, the Office of Global Programs will enhance:

Global programs objectives are to create initiatives, activities, and events that will enhance:

1. Students’ Participation in study abroad and international/national internships.
2. ASU awareness about International Education through International Education Week (IEW), Global Programs Lecture Series etc.
3. ASU engagement in national and international linkages and exchanges (national linkages include participation in University System Councils, Committees, and Consortium activities).
4. Faculty/Staff professional development including training and workshops on Internationalizing the Curriculum, study abroad, etc.
5. Community partnership in Global Programs.
6. International students’ services and retention.

Students’ participation in study abroad and internship

Study abroad is a critical component in realizing the expected quality of the 21st century education. In recent years, many ASU students have shown a lot of interest in study abroad; however, the greatest challenge has always been funding. We are requesting your kind support of our study abroad and internship programs through donation to the ASU Foundation (memo: Study Abroad/ Internships). For more information please visit www.asurams.edu/global.
I would like to make a tax-deductible gift to Albany State University Study Abroad in the amount of:

☐ $100  ☐ $250  ☐ $500  ☐ $1,000  ☐ Visa  ☐ MasterCard  ☐ AMEX  ☐ Other __________

☐ Bill me $__________________  ☐ monthly  ☐ quarterly  ☐ one-time payment

Credit Card # ________________________________________________________  Expiration (MMYY): _________ / _________

Name: ________________________________________________________________  Partner Name: ________________________________________

Address: ___________________________________________________________________

City: ____________________________  State: ______  Zip: __________  Phone: ______________________

ASU graduate? (Yes / No)  Major/College of: ___________________________________________  Year: ______________

Is spouse an ASU graduate? (Yes / No)  Major/College of: _______________________________  Year: ______________

☐ My employer, ____________________________, will match my gift. (Please enclose your company’s matching gift form.)

Please make checks payable to Albany State University Foundation, memo: Global Initiatives.

Questions?
Call 229.430.1662

Study Abroad
GLOBAL. POTENTIAL. REALIZED.
Background - The ASU Foundation Study Abroad Scholarship (AFSAS) program was created in spring 2011 to help ease the financial burden on students who are interested in experiencing study abroad. The first five recipients for the AFSAS award received $1000 each to study abroad in Costa Rica, Trinidad and Tobago, England and Spain in summer of 2011.

Requirements – eligible applicants must be enrolled at ASU as either full-time or part-time students who have made application to a recognized Board of Regents accredited Study Abroad program listed at ASU or in the University System of Georgia Study Abroad Catalogue. You can find the catalog at either http://www.usg.edu/oie/catalog/ or here at the Office of Global Programs-“Study Abroad” stand.

Available funding – The total dollar amount available annually to fund study abroad is determined by the ASU Foundation Advisory Board or the Vice President for Institutional Advancement, and is awarded on a competitive and first-come first-served basis. Students who will benefit must be participating in a USG-sanctioned study abroad program, and should submit formal application timely to the Office of Global Programs using the application form.

Deadlines: The completed application form must be submitted to The Office of Global Programs by January 31, 2013. Recipients of AFSAS aid will receive notification of the amount awarded to each of them by March 15, 2013.

Please sponsor students and donate to ASU!
Make checks payable to:
ASU Foundation (memo: Study Abroad)
and send to:

ASU Foundation
Old President's House
Albany State University,
504 College Drive, 31705

To apply for an Albany State University Foundation Scholarship:
Go to www.asurams/globalprograms.edu for scholarship forms and submit as an attachment to:

The Director of Global Programs
Attn: Study Abroad-ASU Foundation Award
231 Wiley Hall
Albany State University
Albany, Georgia 31705

Email: globalprograms@asurams.edu
Phone: 229-430-1662
Acknowledgements

We acknowledge the efforts of the following individuals whose combined efforts helped in realizing the Peru goal in 2011:

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Mr. Clifford Porter, V.P. Institutional Advancement, ASU Foundation.

Dr. Wohlford, Interim V.P. Office of Research and Sponsored Program (2011)

Professor Nyota Tucker, ASU Legal Counsel and Chief of Staff

Dr. Louise Wrensford, Chair, Natural Sciences

Mr. Sammie Sims, Program Director HCOP, Natural Sciences

Ms. Maggie Emily, Office of Global Programs

Dr. John Williams, Asst. Professor, Natural Sciences

Dr. Nneka Nora Osakwe, Director, Office of Global Programs