



## Elective rotation in the Amazon Region of Northern Peru

Elective Title: A clinical experience in tropical medicine in the Amazon Region of Northern Peru

This four-week rotation during block 9 (Mid February - Mid March). Participants will travel to Iquitos, Peru. The first two weeks will be spent in Iquitos at local hospitals and health care centers working with local physicians on inpatient and outpatient services. At least one day will be spent in the lab working with local technicians on diagnostic testing of tropical diseases. At least one day in Iquitos will be spent doing outreach clinics to the underserved population of the city. After completion of the first week the team will move to a remote location up the Amazon river to a tributary of the Yarapa river which will serve as our base. From there the team will visit 15-20 villages providing primary and urgent care to patients of all ages. Students will have an opportunity to work in our mobile lab and to work with portable ultrasonography. The team will be conducting multiple research projects and students will be able to participate in the development and implementation of those projects.

Director: Thomas Melgar MD  
Department: Internal Medicine  
Coordinator: Teresa Martinez  
Telephone number: 269-337-6353  
Email address: Teresa.Martinez@med.wmich.edu

Blocks available: Block 9 only (Mid February – Mid March)

### A. Objectives

After completion of this elective, each student will be able to:

1. Obtain a medical history and perform a physical examination appropriate to the patient's presentation
2. Construct a logically thought out, prioritized, differential diagnosis for problems typically seen in this tropical environment
3. Construct a diagnostic and management plan appropriate to a resource poor environment
4. Draw upon a strong foundation of knowledge of disorders seen in this region of the tropics
5. Draw upon clinical experience with disorders seen in this region of the tropics
6. Understand and order appropriate testing for tropical diseases
7. Draw upon cultural competency from working with the native populations of the region
8. Construct a problem list for public health in remote communities

### B. Conditions typically encountered

1. Presenting Problems

- a. Fever
  - b. Rash
  - c. Diarrhea
  - d. Headache
  - e. Dizziness
2. Diseases/syndromes
- a. Parasitic infections of the gastrointestinal tract
  - b. Skin disorders
  - c. Upper respiratory infections
  - d. Musculoskeletal problems
  - e. Pterygium and refractive errors
  - f. Malaria
  - g. Dengue
  - h. Zika
  - i. Yellow fever
  - j. Scarlet fever
  - k. Rheumatic fever
  - l. Leptospirosis
  - m. Leishmaniasis
  - n. Tuberculosis
  - o. Malnutrition
  - p. Dehydration

C. Typical schedule, activities, and events: Schedule varies by location. In each location there will be at least one day off each week. In Iquitos days typically are from 8 am until 4 pm. In the jungle typically days begin at 7 am heading out by boat for 30-120 minutes to villages. Approximately 4-5 hours of clinical time is spent working in the villages with a one hour lunch break and returning to the lodge between 3 and 5 pm. Management of clinic data and research project data can be done on the boats or at the lodge after the clinic day. Educational lectures will be provided by participants in the morning or evening. Late afternoon and evening is free time. Participants may relax, read, swim, canoe or go on guided nature hikes. Each night an attending physician, a resident physician and student is on call for patients brought to us at the lodge after hours. Students may ask to participate in the care of these patients but are not required.

D. Assigned reading/educational references: Will be provided to the team once selected in the months prior to the trip

E. Assessment plan, criteria, and standards: All participants will receive verbal feedback throughout the rotation and a direct one on one midpoint verbal evaluation. A complete written evaluation will be provided at the end of the rotation.

F. Evaluation of the elective: All participants are expected to provide written feedback of the rotation.

G. Other:

1. The Amazon Rainforest is a beautiful but harsh environment and accommodations in the lodge are rustic and not handicapped accessible. Think rustic camping. Applicants should be comfortable with this.

2. Participants will need to provide proof of proper immunizations and prophylaxis based on the CDC international travel recommendations.
3. Participants must have a valid passport and must be able to re-enter the USA.
4. The cost of the elective varies but will be approximately \$3,700
  - a. Including:
    - i. Airfare to Iquitos
    - ii. Lodging in Iquitos and in the Jungle
    - iii. Food and water for all meals in the jungle
    - iv. Daily breakfast in Iquitos
    - v. Transportation to and from the jungle lodge and to the villages
    - vi. Evacuation insurance
  - b. Not included:
    - i. Transportation in Iquitos (approximately \$1-2/day)
    - ii. Food and water in Iquitos other than breakfast (\$10-\$15/day)
    - iii. Immunizations and prophylactic medications
    - iv. Personal expenses
5. Spanish fluency is not required but is very helpful. Translators are available.
6. Optional one on one Spanish language instruction is available at an additional cost.
7. Ultrasonography training and skill is beneficial.
8. Each member of the team is expected to help transport up to 50 pounds of medical supplies by using one of their two free checked bags for this purpose.
9. Space is limited: Students and residents must apply and be selected. The application can be found at the following link: <https://www.surveymonkey.com/r/WMed2019>
10. The application is due by June 1st 2018 and decisions will be announced by June 30<sup>th</sup> 2018.