

# Brazil Platform

The first official Memorandum of Understanding (MOU) between the University of Michigan Medical School (UMMS) and the University of São Paulo Faculty of Medicine (FMUSP) was signed in October 2010; however, UMMS faculty members have been collaborating with partners in Brazil for several decades. One of the earliest collaborations happened in the 1950s when the well-respected former chief of the Endocrinology Division of the University of São Paulo (USP), **Professor Emeritus Dr. Bernardo Léo Wajcheberg**, received specific training at U-M and made an unforgettable collaboration with the outstanding UMMS scientist-physician **Dr. Stefan Fajans** in the field of diabetes.

In recent years, UMMS has been actively strengthening its collaborations with USP, building on a number of existing UMMS-FMUSP research programs with the aim of developing broader inter-institutional collaborations that could form the basis for a potential Joint Platform. FMUSP is widely considered to be the best medical school in Latin America, with a large research capacity and a network of hospital and ambulatory centers serving hundreds of thousands of patients. Several key foci areas of research meld perfectly with ongoing research at the University of Michigan (see next page).

Much of the collective energy over the past year has been spent in reciprocal visits focused on current and future research projects, outlining strategic objectives for a Joint Platform, and planning for the U-M Presidential Delegation to Brazil in September 2012.



*UMMS Dean Woolliscroft (center) receiving a token of friendship from the University of São Paulo brought to him by Dr. Edmund Baracat (left) and Dr. Ana Claudia Latrônico (right)*



*Dr. Denise Tate (left) and Dr. Edward Hurvitz (right), Chair of the Department of Physical Medicine & Rehabilitation, present Dr. Julia D'Andrea Greve (center) a Resident Lecture plaque*

## 2011-2012 Platform Highlights

- USP hosted the group's first joint symposium in April 2011; a second symposium will be held in December 2012.
- In Spring 2012, reciprocal research and strategic planning trips were made with UMMS traveling to Brazil in March and USP collaborators travelling to Ann Arbor in April.
- A steering committee consisting of Senior UMMS-FMUSP leaders was created in Summer 2012. Mission, vision, and strategic objectives for the establishment of a Joint Platform were drafted.
- **U-M President Coleman** led a delegation to Brazil in September 2012 where she signed institutional MOUs with USP, the State of São Paulo Research Foundation, and the University of Campinas. UMMS faculty **Drs. Gary Hammer and Michele Heisler** assisted in the planning for the trip and were part of the delegation.
- UMMS is the only foreign medical school with whom the FMUSP developed a competitive scholarship program for its medical students. Four FMUSP medical students will complete 2-month rotations at UMMS beginning December 2012.
- 2 UMMS students spent their M4 clinical rotations at USP: **Arthur Hang** (oncology/endocrinology and diabetes) and **Alberta Hsueh-Min Yen** (infectious diseases).
- 1 FMUSP medical student, **Thales Ishizaki**, spent a month training in the pneumology (pulmonology) unit at UMMS.
- 2 USP endocrinologists, **Dr. Marcondes Lerario** and **Dr. Lorena Lima**, spent a combination of seven months in **Dr. Gary Hammer's** adrenal cancer lab.
- Several potential new partners have been identified at U-M from the departments of neurology, nephrology, and pathology as well as the School of Kinesiology.

## UMMS-USP Key Collaborative Research Projects and Teams

### Adrenal and Other Endocrinological Cancers and Disorders

- **Gary Hammer, MD (UMMS)** and **Ana Latrônico, MD (USP)**  
USP is the South American hub of activity in regard to adrenal cancer work, and U-M's Endocrine Oncology Program (led by Dr. Hammer) is an International Destination Program Center of Excellence for the treatment of adrenal cancer. The teams are working to create a combined tumor repository/data registry, develop a telemedicine platform for information transfer, and pilot an international faculty and student exchange program.

### Endocrine Genetics Collaboration

- **Sally Camper, PhD (UMMS)** and **Luciani de Carvalho, MD (USP)**  
Investigators are working on the molecular basis of congenital hypopituitarism using new tools of DNA sequencing. This involves an expansion of the use of animals in research at USP, such as identifying stem cell markers in the pituitary gland using mouse models and using zebrafish to study the effect of environmental toxins on fertility.

### Primary Care: Health Equity and Chronic Disease Management

- **Michele Heisler, MD (UMMS)**; **Alexandra Brentani, MD**, **Marcia Nery, MD**, and **Thais Vale, MD (USP)**  
FMUSP has a mandate to run all primary care centers in São Paulo's low-income Western Region (Região Oeste) where USP is located. UMMS faculty members are working with USP colleagues to develop and test innovative approaches to aid community health workers in Região Oeste as they teach self-management training to patients with chronic diseases such as diabetes mellitus.

### Reproductive Endocrinology and Technology

- **Gary Smith, PhD (UMMS)**; **Edmund Baracat, MD** and **Rossana Francisco, MD (USP)**  
Dr. Smith serves as the Off-Site Scientific Director of the Huntington Centers for Reproductive Medicine of Brazil, which is now the largest in-vitro fertilization (IVF) clinic in the Americas. The collaborative team has completed phase I and II clinical trials, implemented state-of-the-art infertility treatment and fertility preservation technologies, and improved fertility healthcare. The team is working to implement a Fertility Preservation Program at USP, which will provide on-site and off-site (across the entire country of Brazil) service of male and female gamete cryopreservation for individuals at risk of losing fertility due to gonadotoxic treatments for cancers, immune diseases, and transplant therapies.

### Spinal Cord Injury

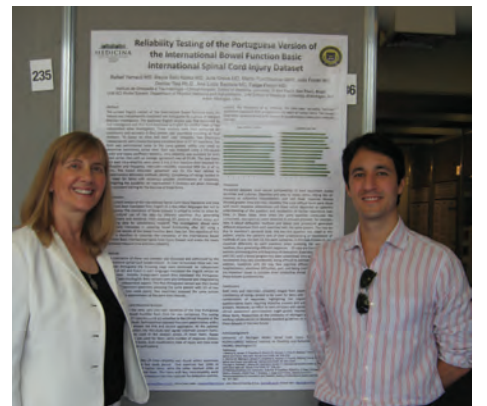
- **Denise Tate, PhD (UMMS)** and **Julia D'Andrea Greve, MD (USP)**  
The incidence and prevalence of Spinal Cord Injury (SCI) in the US and Brazil are among the highest in the world. The cost of caring for someone with SCI continues to exceed that of most disease conditions. Much of the current work in this program relates to the translation and validation of the International Bowel Function Basic and Extended SCI Data Sets. Collaborators are developing a standardized dataset to allow for comparisons of clinical and research SCI data between Brazil and the US.



*"The willingness of Brazilian colleagues to share DNA samples from their adrenal cancer cohort has enabled us to leverage our sample set with the National Cancer Institute TCGA (The Cancer Genome Atlas) platform that has now agreed to invest significant resources to sequence the adrenal cancer genome."  
~Dr. Gary Hammer (above, left), one of the world's leading researchers of the rare disease adrenal cancer (photo courtesy of Eva Menezes/Office of the Vice President for Global Communications)*



*Dr. Edmund Baracat and Dr. Michele Heisler congratulate FMUSP medical student Tamira Rocha Figueredo (center) who was awarded a rotation fellowship for training at UMMS (photo courtesy of Eva Menezes/Office of the Vice President for Global Communications)*



*SCI poster presented jointly by Dr. Denise Tate and Dr. Rafael Yamauti (USP) at the 51st Annual Scientific Meeting of the International Spinal Cord Society in London, September 2012*