

**Environmental Mutagen Society of India (EMSI)**

**and**

**Vellore Institute of Technology  
School of Bio Sciences and Technology**

**INTERNATIONAL WORKSHOP ON:**

**Genome Instability: Basic and applied aspects  
January 27 – 30, 2019**

**COORDINATORS:**

**Prof. Wilner Martínez-López and Prof. Radha Saraswathy**

**Resource Persons: Prof. Juliana Da Silva (Lutheran University of Brazil, ULBRA)  
Prof. Elza Sakamoto Hojo (University of Sao Paulo-Brazil, USP)  
Dr. Vivian Kahl (Children's Medical Research Institute, Australia, CMRI)  
Prof. Prakash Hande (National University of Singapore, NUS)  
Prof. Wilner Martínez-López  
(Biological Research Institute "Clemente Estable"-Uruguay, IIBCE)**

## WORKSHOP SCHEDULE

**Day 1** (27th January 2019, Sunday)

**8:00 – 8:30 h Workshop Introduction** *Radha Saraswathy (VIT)*

**9:30 - 11:00 h** (Kamaraj Auditorium,TT) *Wilner Martínez-López (IIBCE)*

**TALK:** DNA damage and DNA damage responses. Methodologies for studying DNA damage.

*Coffee break*

**11:15 - 12:45 h** (Kamaraj Auditorium,TT) *Wilner Martínez-López (IIBCE)*

**TALK:** Gene mutations and chromosomal alterations.

*Lunch time*

**14:00 – 17:00 h** (120, 113 Labs, TT) *Wilner Martínez-López (IIBCE)*

**PRACTICAL DEMO:** set up of blood culture and treatment with a mutagenic agent.

**Day 2** (28th January 2019, Monday)

**9:00 – 10:30 h** (Kamaraj Auditorium, TT) *Juliana Da Silva (ULBRA)*

**TALK:** Use of comet assay and micronucleus test in biomonitoring studies

*Coffee break*

**11:15 - 12:45 h** (Kamaraj Auditorium,TT) *Juliana Da Silva (ULBRA)*

**TALK:** Occupational exposure

*Lunch time*

**14:00 – 17:00 h** (120, 113 Labs, TT) *Juliana Da Silva (ULBRA); Wilner Martínez-López*

*(IIBCE)* **PRACTICAL DEMO:** 1) lymphocytes harvesting and slide preparation;  
2) Micronucleus analysis in exfoliated buccal cells.

**Day 3 (29th January 2019, Tuesday)****9:00 – 10:30 h** (Kamaraj Auditorium, TT) *Prakash Hande (NUS)***TALK:** Telomeres, Telomerase and DNA Repair: at the cross-roads of ageing and cancer.*Coffee break***11:15 - 12:45 h** (Kamaraj Auditorium, TT) *Vivian Kahl (CMRI)***TALK:** Telomere Length in Occupational Exposure Settings - from theoretical to practical*Lunch time***14:00 – 17:00 h** (244 SMV, 120, 113 Labs TT) *Vivian Kahl (CMRI) and Prakash Hande (NUS)***PRACTICAL DEMO:** 1) Analysis of telomere length by qPCR (prepare a few DNA samples and a reference sample as standard curve based on the necessary concentrations for the qPCR for both telomere and single copy gene primers); 2) telomere analysis by FISH using telomere PNA probes.**Day 4 (30th January 2019, Wednesday)****9:00 – 10:30 h** (Kamaraj Auditorium, TT) *Vivian Kahl (CMRI)***TALK:** Telomere dynamics and epigenetic status are altered in tobacco farmers.*Coffee break***11:15 - 12:45 h** (Kamaraj Auditorium, TT) *Elza Sakamoto-Hojo (USP)***TALK:** Radiation biodosimetry – Lessons from the accident with <sup>137</sup>Cesium in Goiania, Brazil*Lunch time***14:00 – 17:00 h** (244 SMV, 120, 113 Labs, TT) *Vivian Kahl (CMRI) - Elza Sakamoto-Hojo (USP) - Prakash Hande (NUS)***PRACTICAL DEMO:** 1) Analysis of telomere length by qPCR (run a qPCR for telomere primers including a few DNA samples, the standard curve, a non-template control and a reference sample). 2) Detection of radiation-induced chromosomal aberrations by the FISH method.