SCIENTIFIC PROGRAM

September 7 th	
9:00 a.m.	In Loco Registration
9:00 a.m 1:00 p.m.	Short courses
	These courses will be in Portuguese. Local: Ed. Biomédicas 2, Av. Prof. Lineu Prestes, 1374, Cid. Universitária, USP, São Paulo, SP
	Short course 1: Aging and Neurodegeneration: the role of redox processes and DNA repair mechanisms.
	Giovana Leandro and Natalia Cestari Moreno, University of São Paulo, SP
	Short course 2: DNA lesions and repair in host-pathogen interaction.
	Pilar Veras Florentino, University of São Paulo, SP, and Bruno Repolês, Federal University of Minas Gerais, BH, MG.
	Short course 3: Mitochondrial DNA repair. Nadja Souza-Pinto, University of São Paulo, SP, and Mateus Prates Mori, University of São Paulo, SP.
3:00 p.m.	Opening FARM-DNA presentation
3:30 - 4:30 p.m.	Opening lecture
	Coordinator: Carlos F M Menck, USP, SP
	Alain Sarasin, Institut Gustave Roussy, Villejuif, France
	How History and Geography can explain the high incidence of XP-C patients in the Comorian Archipelago and their link with some Brazilian XPs.
4:30 - 6:30 p.m.	Symposium 1: DNA repair and Cancer
	Coordinator: Clarissa RR Rocha, USP, SP
	Jean-Yves Masson, CHU de Québec-Université Laval Research Center, Québec City, QC, Canada
	The DNA-double strand break repair protein PALB2: function, regulation, and charting synthetic lethal strategies for cancer treatment.
	Luís Mariano Polo, University of Sussex, Brighton, UK.
	XRCC1 mediated interactions shed light on its links with cancer risk.
	Jenifer Saffi, Universidade Federal de Ciências da Saúde de Porto Alegre (UFCSPA), Porto Alegre, Rio Grande do Sul, Brazil.
	DNA repair imbalance is associated with tumor aggressiveness and modulates response to chemotherapy in sporadic colorectal cancer.

	Leonardo Karam Teixeira, Brazilian National Cancer Institute (INCA), Rio de Janeiro, RJ, Brazil
	Cyclin E: Replication Stress and Genomic Instability in Human Cancer.
	SHORT TALK Yuli T. Magalhães, Institute of Chemistry, University of São Paulo, São Paulo, SP, Brazil. Responsiveness of glioblastoma cells to γ-radiation and cisplatin treatments: a RHO -p53- mediated pathway?
6:30 p.m.	Welcome Meeting!
September 8 th	
8:30 - 10:30 a.m.	Symposium 2: Mechanisms of DNA damage bypass and replicative stress
	Coordinator: Alessandra Pelegrini, USP, SP
	Alessandro Vindigni, Saint Louis University School of Medicine, St. Louis MO, USA
	Redefining replication stress response pathways in BRCA1-deficient cells.
	Vanesa Gottifredi, Fundación Instituto Leloir, IIBBA/ CONICET, Buenos Aires, Argentina
	Oncogenic and antioncogenic signals arising from the depletion of pol eta in the xeroderma pigmentosum variant disease.
	Rodrigo Martins, Universidade Federal do Rio de Janeiro, RJ, Brazil Maintenance of genomic stability in central nervous system development: Regulation of replicative stress by the ATR-ATRIP signaling pathway.
	Patricia Kannouche, Institut Gustave Roussy, Villejuif, France Unexpected role of the specialized polymerase zeta in DNA replication and genome stability.
	SHORT TALK
	Annabel Quinet, Saint Louis University School of Medicine, St. Louis MO, USA
	Redifining replication stress response pathways in BRCA1-deficient cells.
10:30 -11:00a.m.	<u>Coffee breaks</u>
11:00 a.m 1:00 p.m.	Symposium 3: RNA and transcription on damaged template
	Coordinator: Giovana Leandro, USP, SP
	Manuel J. Munoz, Universidad de Buenos Aires, Buenos Aires, Argentina
	Gene expression misregulation in DNA repair deficient cells.
	Lucymara F. Agnez Lima, Universidade Federal do Rio Grande do Norte, Natal, Brazil
	Chemical Inhibition of APE1 and its transcriptional consequences.

Luis F.Z. Batista, Washington University, St. Louis, MO, USA
Modulation of RNA decay pathways improves functionality of cells with impaired
telomere maintenance.

SHORT TALK

Jessica E.B.F. Lima, University of São Paulo – RP, Ribeirão Preto, SP, Brazil DNA damage levels, oxidative stress and mitochondrial alterations in patients with type 2 diabetes mellitus.

- 1:00 2:00 p.m. <u>LUNCH</u>
- 2:00 2:45 p.m. <u>Lecture 2</u> Coordinator: Nadja Souza Pinto, USP, SP

Andrés Aguillera, Universidad de Sevilla, Seville, Spain Role of chromatin and DNA damage response functions in R loop-mediated genome instability.

2:45- 3:00 p.m. <u>Coffee break</u>

3:00 - 5:00 p.m. <u>Symposium 4: Nuclear stress and DNA repair</u>

Coordinator: Pilar Veras Florentino, USP, SP

Bruce Demple, Stony Brook University, School of Medicine, Stony Brook, NY, USA The Long and Short of It: Mammalian Base Repair Pathways for Oxidative DNA Lesions.

Filippo Rosselli, Institut Gustave Roussy, Villejuif, France Loss of function of the Fanconi anemia A protein leads to nucleolar stress and altered ribosomal biogenesis.

Carlos Renato Machado, Universidade Federal de Minas Gerais, Belo Horizonte, Brazil.

The recombinase Rad51 plays a key role in events of genetic exchange in *Trypanosoma cruzi*.

Valeria Valente, Faculty of Pharmaceutical Sciences of Araraquara, University of São Paulo State, Araraquara, Brazil

The histone chaperone HJURP facilitates DSB repair and promotes radioresistance to astrocytoma cells.

SHORT TALK

<u>Raphael S. Pavani</u>, Butantan Institute, São Paulo, SP, Brazil Replication Protein A from trypanosomatids: A new perspective for a well-known complex.

5:00 - 7:00 p.m. <u>COFFEE BREAK WITH THE POSTERS</u>

September 9th

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8:30 - 10:30 a.m.	Symposium 5: Making and Mending Breaks on DNA
	Coordinator: André Uchimura Bastos, USP, SP
	Bernard Lopez, Institut Gustave Roussy, Villejuif, France
	RAD51 generates genetic instability through non-homologous recombination.
	Francisco Meirelles Bastos de Oliveira, Universidade Federal do Rio de Janeiro, Brazil
	Quantitative Analysis of DNA Damage Signaling Responses.
	Keith W Caldecott, Genome Damage and Stability Centre, University of Sussex, UK
	DNA single-strand breaks, genome stability, and human disease.
	Nicolas Hoch, Instituto de Química, Universidade de São Paulo, São Paulo, SP, Brazil. XRCC1 Mutation is Associated with PARP1 Hyperactivation and Cerebellar Ataxia
	SHORT TALK
	Marina Dall'Osto, Research Center of Toulouse, Toulouse, France
	Role of the DNA polymerase kappa in the regulation of the kinase CHK1.
10:30 - 11:00 .am.	<u>Coffee break</u>
11:00 a.m 1:00 p.m.	Symposium 6: Mechanisms for maintaining genome integrity
	Coordinator: Natalia C Moreno, USP, SP
	<i>Ben Van Houten, University of Pittsburgh, Pittsburgh, PA, USA</i> Damage sensor role of UV-DDB during base excision repair: stimulation of APE1 and OGG1.
	Marcos R. Chiaratti, Federal University of São Carlos, São Carlos, SP, Brazil
	Mfn1 is essential to oocyte fertility in mice whereas Mfn2 is required in oocytes to filter out mutant mitochondrial DNA.
	Marcos T. Oliveira, Universidade Estadual Paulista, Jaboticabal, SP, Brazil
	Twinkle and the maintenance of mitochondrial DNA.
	Jose Renato Cussiol, Universidade Federal de São Paulo, SP, Brazil Cross-talk between phospholipid metabolism and DNA Damage Response in Saccharomyces cerevisiae.
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Mateus Prates Mori, Institute of Chemistry, University of São Paulo, São Paulo, SP, Brazil.

Decreased PGC-1 expression correlates with Δ TG mutation in *XPC* gene but not with decreased expression of PGC-1A target genes.

1:00 - 3:00 p.m. <u>LUNCH ON THE POSTER SESSION</u>

3:00 - 3:45 p.m.	Lecture 3
	Coordinator: Carlos Renato Machado, UFMG, BH, MG
	Jan Hoeijmakers, Erasmus Medical Center, Rotterdam, The Netherlands
	Genome maintenance protects from aging and cancer: the impact of nutrition.
	Coffee break 15 minutes
4:00 - 6:00 p.m.	Symposium 7: Carcinogenesis and stem cells
	Coordinator: Luciana R Gomes, USP, SP
	Ludmil Alexandrov, University of California, San Diego, La Jolla, CA, USA
	The Repertoire of Mutational Signatures in Human Cancer.
	Alysson Muotri, University of California, San Diego, La Jolla, CA, USA
	Blocking LINE-1 reverse transcriptase activity in TREX1-deficient cells rescues neurotoxicity in Aicardi-Goutières syndrome.
	Peter de Keizer, Center for Molecular Medicine, University Medical Center Utrecht, Utrecht University, The Netherlands
	Targeted Apoptosis of Senescent Cells against Aging and Cancer.
	Rodrigo S. Fortunato, Universidade Federal do Rio de Janeiro, RJ, Brazil
	DUOX1 silencing in mammary cells alters the responses to genotoxic stress.
	SHORT TALK
	Alexandre T. Vessoni, Washington University in St. Louis, St. Louis, MO, USA
	DNA damage response in Human Embryonic stem cells with short telomeres.
6:00 p.m.	Closing Ceremony with Poster Awards Distribution