



UNIVERSIDADE DE SÃO PAULO  
FACULDADE DE MEDICINA DE RIBEIRÃO PRETO

II Workshop dos Programas de Pós-Graduação em  
Oncologia Clínica Células Tronco e Terapia Celular e Mestrado  
Profissional em Hemoterapia e Biotecnologia  
secretariaceduc@hemocentro.fmrp.usp.br  
Fone: (16) 3315-4603



**PROGRAM OF EXTERNAL VISITING PROFESSOR – 2022**

**ACTIVITY 1 - Short-duration scientific meetings**

**Title:** MOLECULAR AND PHENOTYPICAL MECHANISMS IN CANCER BY SINGLE-CELL ANALYSIS

**Hosting professor:**

Lorena Lobo de Figueiredo Pontes, MD, PhD

Professor of Hematology - Division of Hematology and Hemotherapy of the Internal Medicine Department – Ribeirao Preto Medical School at the University of Sao Paulo, Ribeirao Preto, Sao Paulo, Brazil.

**Visiting professor:**

Robert S. Welner, PhD

Assistant Professor – Division of Hematology & Oncology at the University of Alabama (UAB) School of Medicine at Birmingham (Birmingham, Alabama, EUA)

Investigator at Beth Israel *Deaconess Medical Center - Harvard Medical School* (Boston, MA, EUA)

**Academic Director:**

Prof. Dr. Rodrigo do Tocantins Calado de Saloma Rodrigues

Associate Professor of Hematology - Division of Hematology and Hemotherapy of the Internal Medicine Department – Ribeirao Preto Medical School at the University of Sao Paulo, Ribeirao Preto, Sao Paulo, Brazil.

**Main research area:** Clinical Oncology

Area of concentration: Stem cells and cell therapy

**Background and Aim:**

It is well known that cancer is initiated by oncogene-driven mechanisms that harm the normal control of cellular proliferation, apoptosis and differentiation. However, directly targeting the molecular abnormalities associated with such diseases is challenging if not virtually impossible due to the presence of multiple clones and concomitant gene mutations. More recently, data has emerged showing that other cells from the bone marrow microenvironment may contribute to the pathogenesis of stem cell-derived diseases. Therefore, it is plausible that neoplasms do not simply result from intrinsic defects of the cancer initiating cells (CIC) but also from its regulation by other cells from the immune system and cells that comprise the cancer microenvironment.



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The proposed scientific meetings aim to review the current advances on the oncogene-dependent and extrinsic pathways that may lead to cancer initiation and maintenance, by the exchange of knowledge between Principal Investigators and post-graduation students of the Center for Cell-based Therapy and a Visiting Professor with expertise in this area of research.

**Goals:**

1. Establish a collaborative network among the Investigators affiliated with the Post-graduation Program in Clinical Oncology and between them and the Visiting Professor from the UAB.
2. Discuss the progress of ongoing research projects of the Post-graduation Program in Clinical Oncology by the participating scientists with the aim of improving the quality of results for the scientific communications.
3. Provide training for MSc and PhD students and post-doctoral fellows in the field of clinical oncology, stem cells and cellular therapy in new strategies of single-cell analysis including cellular and molecular methods.

**Planned Activities:**

**Scope:**

The organizers are proposing the inclusion of students of the Post-graduation Program in Clinical Oncology and their Principal Investigators. The activities will be included in the content of the following Disciplines of the program:

OCT5717 – Advanced Topics in hematopoiesis and diseases of the hematopoietic stem cell  
Coordination: Prof. Dr. Rodrigo do Tocantins Calado de Saloma Rodrigues

OCT5720 – Advanced Topics in signaling pathways of normal and neoplastic hematopoiesis  
Coordination: Lorena Lobo de Figueiredo Pontes, Fabíola Traina and Eduardo M. Rego

**Organizers:**

- Lorena Lobo de Figueiredo Pontes (PI)
- Fabíola Traina (PI)
- Leandro M Colli (PI)
- Eduardo Magalhães Rego (PI)
- Camila Araújo (post-doctoral fellow)



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**Schedule:**

<b>1<sup>st</sup> Day (11/07/2022)</b>		
<b>Time</b>	<b>Activities</b>	<b>Speaker</b>
8:30-12:00	Welcome reception and laboratories visit	Organizers
<b>2<sup>nd</sup> Day (11/08/2022)</b>		
8:30 – 12:00	Single-cell approaches in hematopoiesis	Dr. Lorena Pontes & students
	<i>Lunch</i>	
14:00 – 18:00	Immune evasion studies by single-cell approaches in myeloid neoplasms	Dr. Lorena Pontes & students Dr. Fabíola Traina & students
<b>3<sup>rd</sup> Day (11/09/2022)</b>		
8:30 – 12:00	Single cell studies in cancer Single cell studies in inflammation	Dr. Leandro Colli & students Dr. Thiago Cunha & students
	<i>Lunch</i>	
14:00 – 18:00	Molecular signaling in myeloid neoplasms	Dr. Lorena Pontes & students Dr. Fabíola Traina & students
<b>4<sup>th</sup> Day (11/10/2022)</b>		
<b>8:30 – 18:00</b>	<b><i>Oncology, Stem Cells, and Cellular Therapy Program Workshop</i></b>	<b><i>Organizers, principal investigators and students</i></b>
<b>5<sup>th</sup> Day (11/11/2022)</b>		
8:30 – 10:00		Dr. Rego & students
11:00 – 14:00	<i>Lunch</i>	Prof. Zago nomination as Emeritus Professor - ceremony
<b>6<sup>th</sup> Day (11/12/2022)</b>		
8:30 – 12:00	Final remarks of collaboration in single cell projects	
12:00 – 14:00	<i>Lunch</i>	



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## ACTIVITY 2 - Oncology, Stem Cells, and Cellular Therapy Program Workshop

Date: November 10th, 2022

Place: Anfiteatro vermelho, Hemocentro de Ribeirão Preto

Welcome session			
Time			Speaker
8:30	Welcome from Program Committee coordination		
8:40-8:50	OCCTC	Program Introduction	Lorena L F Pontes
8:50-9:00	MPHB	Program Introduction	Fabiola Traina
Session 1: Tumoral biomarkers			
Time	Activity	Theme	Speaker
9:00-9:20	"Clinical impact of genetic susceptibility in cancer"	Genetic susceptibility in cancer	Leandro Machado Colli / Aline Gomes de Souza
9:20-9:30	Oral presentation 1	<i>Análise da efetividade e toxicidades da quimioterapia adjuvante semanal no carcinoma espinocelular de cabeça e pescoço</i>	Camila Reis Teixeira Avelar - MP
9:30-9:40	Oral presentation 2	<i>DPF3 e o seu papel na Susceptibilidade Genética ao Câncer Renal</i>	Letícia Andrade Costa - D
9:40-9:50	Oral presentation 3	<i>Impacto da Genômica Funcional na Elaboração de Escores de Risco Poligênicos</i>	Marina Candido Visontai Cormedi - D
9:50-10:00	Oral presentation 4	<i>Avaliação dos fatores de risco para o desenvolvimento de osteonecrose dos maxilares induzida por bifosfonatos em pacientes oncológicos usuários de bifosfonato intravenoso</i>	Mariana Andrade Costa - MA
10:00-11:00	Break / Poster guided visit		
Session 2: Somatic stem cells			
Time	Activity	Theme	Speaker
11:00-11:20	"Hematopoietic stem cell failure"	Bone marrow failures	Rodrigo T Calado / Philip Scheinberg
11:20-11:30	Oral presentation 5	UM171 Expande Células CD34+ Imaturas Da Medula Óssea De Pacientes Com Telomeropatias	Vinícius Silva de Carvalho - D
11:30-11:40	Oral presentation 6	Tecnologia SNaPshot para caracterização molecular dos alelos RHD*DAU e RHD*DAR	Carolina Madeira Ribeiro - MP
11:40-11:50	Oral presentation 7	Perfil genético de pacientes com suspeita de síndromes de falência medular hereditária	André Luiz Pinto Santos - D



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11:50-12:00	Oral presentation 8	Anti-MAGE-A4 CAR NK Cell therapy for the treatment of solid tumors	Sima Ebrahimabadi - D
12:00-14:00	Break / Lunch		
<b>Session 3: Neoplastic stem cells</b>			
Time	Activity	Theme	Speaker
14:00-14:20	"Inflammatory environment promotes clonal fitness in a pre-clinical model of MDS/AML"	Myeloid neoplasms	Robert S Welner (UAB)
14:20-14:30	Oral presentation 9	<i>O desequilíbrio entre receptores de ativação e inibição nas células NK citotóxicas é preditor de desfecho na leucemia mieloide aguda</i>	Amanda Fernandes de Oliveira Costa - D
14:30-14:40	Oral presentation 10	<i>A inibição farmacológica ou genética da autofagia induzida por fármacos inibidores de FLT3 reduz a viabilidade celular em linhagem leucêmica com mutação FLT3-ITD</i>	Manuela Albuquerque de Melo - MA
14:40-14:50	Oral presentation 11	Inflammatory cytokines perturb NK cell cytotoxicity and gene signature in myeloid leukemia	Valeriya Kuznetsova - D
14:50-15:00	Oral presentation 12	Metformin Inhibits STAT3 and MAPK Signaling Through AMPK Activation in CSF3R T618I Cells	Natasha Peixoto Fonseca - D
15:00-16:00	Break / Poster guided visit		
<b>Session 4: Hemotherapy and Transfusion Medicine</b>			
Time	Activity	Theme	Speaker
16:00-16:20	"Clinical impact of emergent infections in cellular therapy"	Emergent virus	Simone Kashima Haddad / Svetoslav Nanev Slavov
16:20-16:30	Oral presentation 13	<i>Apresentação clínica e preditores de risco de morte em pacientes com púrpura trombocitopênica trombótica adquirida: dados de vida real de 50 pacientes do Hospital das Clínicas de Ribeirão Preto</i>	Patrícia Oliveira da Cunha Terra -MP
16:30-16:40	Oral presentation 14	<i>Análise epidemiológica da mortalidade em pacientes portadores de doença falciforme seguidos no Hospital das Clínicas da Faculdade de Medicina de</i>	Douglas Covre Stocco - MP



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		<i>Ribeirão Preto / Universidade de São Paulo</i>	
16:40-16:50	Oral presentation 15	<i>Monitoramento genômico de dengue vírus e identificação de quasispecies virais em região endêmica</i>	Debora Glenda Lima de La-Roque - D
16:50-17:00	Oral presentation 16	<i>Otimização da tecnologia de sequenciamento portátil minion para metagenômica viral no campo da hemoterapia</i>	Victória Simionatto Zucherato - MA
<b>Session 5: Biotechnology and Cellular Therapy</b>			
<b>Time</b>	<b>Activity</b>	<b>Theme</b>	<b>Speaker</b>
17:00-17:20	"Anticancer cellular immunotherapy with genetically modified immune cells"	CAR-T/NK cells generation	Virgínia Picanço / Lucas Eduardo Botelho de Souza
17:20-17:30	Oral presentation 17	<i>Mobilização de Células Progenitoras Hematopoéticas com Citarabina em Doses Intermediárias</i>	Virgilio da Costa Farnese - MP
17:30-17:40	Oral presentation 18	<i>Otimização de uma plataforma baseada na edição gênica por CRISPR/Cas9 para a produção de células T alogênicas expressando o receptor quimérico de antígeno (CAR)</i>	Sarah Caroline Gomes de Lima - MA
17:40-17:50	Oral presentation 19	<i>Células T-CAR expressando uma nova construção contra o antígeno intracelular MAGE-A4 eliminam células de mieloma múltiplo</i>	Roberta Maraninchi Silveira - D
17:50-18:00	Oral presentation 20	<i>Avaliação funcional in vitro de linfócitos T-CAR anti-GD2 coexpressando a molécula coestimulatória GITRL e estabelecimento de modelo pré-clínico ortotópico de glioblastoma</i>	Izadora Peter Furtado - D
18:00 – 18:30	Awards		Program Committee