

**II International School of Biochemistry, Molecular & Cell Biology**

**Current tools in cell biology: probing normal and pathological cell functions**

**IV International Symposium on Myosin V - 21 Years of History**

**Current tools in cell biology: probing normal and pathological cell functions**

**1<sup>st</sup> Week**

**Aug 02 – Arrival**

	<b>Aug 03</b>	<b>Aug 04</b>	<b>Aug 05</b>	<b>Aug 06</b>
07:00 – 08:00	Hotel – UFRJ			
08:00 – 09:00	Lecture 1	Lecture 5	Lecture 9	Lecture 12
09:00 – 10:00	Lecture 2	Lecture 6	Lecture 10	Lecture 13
10:00 – 10:30	Coffee Break			
10:30 – 11:30	Lecture 3	Lecture 7	Lecture 11	Lecture 14
11:30 – 12:30	Lecture 4	Lecture 8	Buffer	Lecture 15
12:30 – 13:30	Lunch			
13:30 – 14:30	Practical 1-7	Practical 1-7	Practical 1-8	Lecture 16
14:30 – 18:00	Practical 1-7	Practical 1-7	Practical 1-8	Practical 1-8
18:00 – 19:00	UFRJ – Hotel			
19:00 – 20:00	Dinner			
20:30 – 24:00	Late activity			

**Lab Classes**

	<b>Title</b>	<b>Faculty</b>	<b>TA</b>	<b>Lab</b>
1.	Rac activity in cytoskeletal organization	<b>Suranganie Dharmawardhane</b>	Debora Leite	
2.	iRNA approaches in cancer biology	<b>Enilza Esprefico</b>	Cleudson Alves/ Leandro Oliveira	
3.	Actin IQGAP1 association in cells	<b>George Bloom</b>	Sofia Jürgensen	
4.	Cell-to-cell RNA transfer in sciatic nerve	<b>John Mercer/ Jose Sotelo</b>	Leandro Oliveira	
5.	T. cruzi and cell invasion: the role of Ca <sup>2+</sup> and Myosin V	<b>Verônica Salerno/ Bill Provance</b>	Renato De Paulo	
6.	Ca <sup>2+</sup> signalling in muscle cells	<b>Martha Sorenson</b>	Ricardo Miranda	
7.	Quantitative FRET microscopy	<b>Horst Wallrabe</b>	Rafael Luzes/ Nathália Resende	
8.	New tools in cellular bioinformatics	<b>Margaret Titus</b>	Priscila Santos	

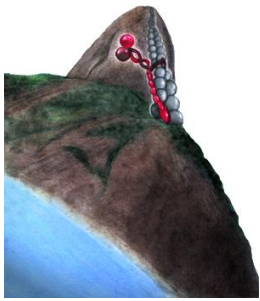


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**Lectures (Quinhentão/CCS/UFRJ)**

1.	Regulation of Actin Assembly and Cell Motility by IQGAPs	<b>George Bloom</b>	University of Virginia
2.	Principles of FRET microscopy	<b>Horst Wallrabe</b>	University of Virginia
3.	Cell motility in Cancer	<b>Enilza Espreafico</b>	University of São Paulo
4.	RNAs and Proteins Traffic in Myelinated Axons: Inside the Cell and from Outside the Cell	<b>Jose Sotelo</b>	Ins. Invest. Biol. Clemente Estable
5.	Unconventional myosins: are we biased by names?	<b>John Mercer</b>	McLaughlin Research Institute
6.	Microtubules, Rho GTPases and cell polarity	<b>Gregg Gundersen</b>	Columbia University
7.	Regulation of the actomyosin cytoskeleton by Rho GTPases during cancer cell invasion	<b>Suranganie Dharmawardhane</b>	University of Puerto Rico
8.	Actin cytoskeleton modulates calcium signalling during maturation and fertilization	<b>Luigia Santella</b>	Stazione Zoologica Anton Dohrn
9.	Myosin kinetics	<b>Verônica Salerno</b>	Federal University of Rio de Janeiro
10.	Chemotaxis: Signalling to the Cytoskeleton	<b>Margaret Titus</b>	University of Minnesota
11.	The PKC1 signaling pathway mediates cell integrity in cytokinesis mutants of the budding yeast <i>Saccharomyces cerevisiae</i>	<b>Jose Rodriguez-Medina</b>	Universidad of Puerto Rico
12.	Calcium Signaling : a meeting point for cellular and structural biology	<b>Ernesto Carafoli</b>	University of Padova
13.	High-throughput Yeast Genetics and Cell Biology	<b>Charlie Boone</b>	University of Toronto
14.	General Methods for Studying Transcription and Nuclear Processes	<b>Munira Baqui/Primal de Lanerolle/Roy Larson</b>	Universidade de São Paulo University of Illinois
15.	General Methods for Studying Transcription and Nuclear Processes	<b>Munira Baqui/Primal de Lanerolle/Roy Larson</b>	Universidade de São Paulo University of Illinois
16.	Two-hybrid technologies in proteomics research	<b>Igor Stagljar</b>	University of Toronto

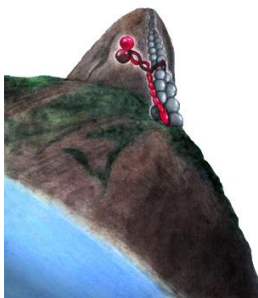


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Friday, 07	Talk
08:30 - 09:00	Prefoldin 4: a new partner for melanophilin that helps it to fold Renato De Paulo
09:00 - 09:30	An unconventional myosin required for cell polarization and chemotaxis Margaret Titus
09:30 - 10:00	Expression of cytoskeletal proteins of the protozoan Giardia intestinalis after its in vitro treatment with experimental chemicals Javier Ambrosio
10:00 - 10:30	Break
10:30 - 11:00	Post-transcriptional control of the stress response is mediated by TOR signaling in the myo1D mutant of S. cerevisiae José Rodriguez-Medina
11:00 - 11:30	Regulation of the Rho GTPase Rac in metastatic breast cancer by dietary compounds and small molecule inhibitors Suranganie Dharmawardhane
11:30 - 12:00	Calcium and fertilization: an old phenomenon in the new light? Luigia Santella

Lunch: Moqueca (Pinguim)

Friday, 07	Talk
16:00 - 16:30	Calcium dysregulation and mitochondrial stress in Huntington's striatal neurons Ernesto Carafoli
16:30 - 17:00	Running to save neurons L. C. Cameron
17:00 - 17:30	Learning, memory, and immune system: How does immunity control the brain function? Jonathan Kipnis
17:30 - 18:00	Break
18:00 - 18:30	Signaling from Amyloid to Tau in Alzheimer's Disease George Bloom
18:30 - 19:00	Antagonistic influences of Tctex-1 and Lfc during axon formation Alfredo Cáceres

Poster Section 19:00 – 20:00

21:00 Luau (Colonna)



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Instituto de Bioquímica Médica UFRJ



Conselho Nacional de Desenvolvimento Científico e Tecnológico



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Fundação Carlos Chagas Filho de Amparo à Pesquisa do Estado do Rio de Janeiro



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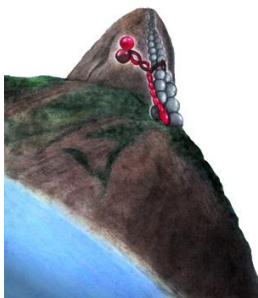
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Saturday, 08	Talk
08:30 - 09:00	Rab27 and Myosin V in organelle transport Miguel Seabra
09:00 - 09:30	Myosin V proteins interact with multiple Rab GTPases James Goldenring
09:30 - 10:00	Myosin Va is involved in nuclear splicing Munira Baqui
10:00 - 10:30	Break
10:30 - 11:00	Myosin-Va in cell spreading, adhesion and motility Enilza Espreafico
11:00 - 11:30	Myosin-Vb tethers peripheral endosomal compartments William Provance
11:30 - 12:00	Myosin-Vb and Alzheimer's Verônica Salerno

**Lunch: Feijoada (Pinguim)**

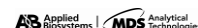
Saturday, 08	Talk
16:00 - 16:30	Coupling between ion channel functioning through intracellular ions Gonzalo Ferreira
16:30 - 17:00	Driving Biological Discoveries Using the Membrane Yeast Two-Hybrid (MYTH) Technology: lessons from the human Epidermal Growth Factor Receptor (EGFR) Igor Stagljär
17:00 - 17:30	Host-parasite cell interaction of <i>L. wallacei</i> and its natural vector <i>O. fasciatus</i> (Hemiptera: Lygaeidae) Alexandre Romeiro
17:30 - 18:00	Break
18:00 - 18:30	Cancer Genetics in Colombia Ignacio Briceño
18:30 - 19:00	Yeast Systems Biology: Large-scale Mapping of Genetic and Chemical Genetic Networks in Yeast Charlie Boone

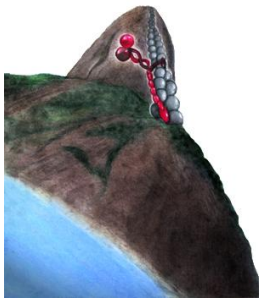
**Poster Section 19:00 – 20:00**

**21:00 Festa TAs (Mandrágora)**



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Sunday, 09	Talk
08:30 - 09:00	mRNA trafficking – A whole genome in transit? Jeffrey E. Gerst
09:00 - 09:30	Schwann cells (peripheral glia) supply peripheral axons with ribosomes and RNAs José Sotelo
09:30 - 10:00	Myosin-Va and cell-to-cell RNA transfer John Mercer
10:00 - 10:30	Break
10:30 - 11:00	A novel RNA-binding protein localized to the presynaptic terminal of the squid giant synapse Roy Larson
11:00 - 11:30	Molecular Motors in the Nucleus Primal de Lanerolle
11:30 - 12:00	Nuclear-cytoskeleton interaction sin cell polarity, migration and disease Gregg Gundersen

**Lunch: Jaba/Jerimum (Pinguim)**

Sunday, 09	Talk
16:00 - 16:30	Trafficking in polarized epithelial cells (Transferrin receptor) Horst Wallrabe
16:30 - 17:00	Role of reactive oxygen species in contraction-mediated glucose transport in skeletal muscle Abram Katz
17:00 - 17:30	The glycogen granule and its proteins: their regulatory roles Terry Graham
17:30 - 18:00	Break
18:00 - 18:30	Hipotalamic-pituitary-thyroid axis and exercise induced-growth hormone release João Pedro Werneck de Castro
18:30 - 19:00	The EEG in the cerebral metabolism Daniel Botero

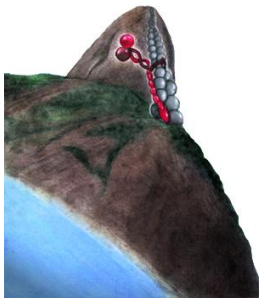
**Poster Section 19:00 – 20:00**

**21:00 Churrasco (Colonna)**



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**2<sup>nd</sup> Week**

	<b>Aug 11</b>	<b>Aug 12</b>	<b>Aug 13</b>	<b>Aug 14</b>
07:00 – 08:00	Hotel - UFRJ			
08:00 – 09:00	Lecture 17	Lecture 21	Lecture 25	Lecture 29
09:00 – 10:00	Lecture 18	Lecture 22	Lecture 26	Lecture 30
10:00 – 10:30	Coffee Break			
10:30 – 11:30	Lecture 19	Lecture 23	Lecture 27	Lecture 31
11:30 – 12:30	Lecture 20	Lecture 24	Lecture 28	Lecture 32
12:30 – 13:30	Lunch			
13:30 – 18:00	Practical 9-16	Practical 9-16	Practical 10-16	Practical 10-16
18:00 – 19:00	UFRJ – Hotel			
19:00 – 20:00	Dinner			
20:30 – 24:00	Late activity			

**Aug 15 – Departure**

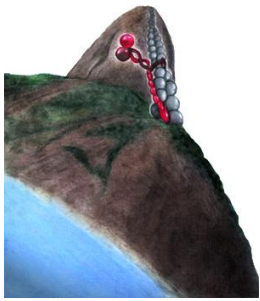
**Lab Classes**

	<b>Title</b>	<b>Faculty</b>	<b>TA</b>	<b>Lab</b>
9.	Immunohistochemical techniques to determine neural precursor cells and "baby" neurons in adult rodent brain	<b>Jonathan Kipnis</b>	Nathália Resende/ Débora Leite	
10.	Sponsors real time PCR	<b>Ignacio Briceño</b>	Priscila Santos	
11.	Immunochemical recognition of cytoskeletal proteins	<b>Javier Ambrosio</b>	Leandro Oliveira	
12.	Measurement of glucose transport in isolated muscle	<b>Abram Katz</b>	Renato De Paulo/ Anibal Magalhães-Neto	
13.	Relation between EEG and Neurometabolism	<b>Daniel Botero</b>	Flávio Bachini	
14.	Spinning disk confocal microscopy	<b>Alfredo Cáceres</b>	Rafael Luzes	
15.	Cell mRNA localization	<b>Jeffrey E. Gerst</b>		
16.	Confocal Microscopy	<b>Carlos Más</b>	Sofia Jürgensen	



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**Lectures (Library Auditorium/CCS/UFRJ)**

17.	Dissecting protein: protein interactions: The modern toolbox	<b>James Goldenring</b>	Vanderbilt University
18.	The glycogen granule and its proteins: their regulatory roles	<b>Terry Graham</b>	University of Guelph
19.	An integrative view of how to measure Ion channel fluxes, electrical potentials, imaging and contractile responses from muscles	<b>Gonzalo Ferreira</b>	Universidad de la República
20.	Cellular cargo addressing	<b>Miguel Seabra</b>	Imperial College
21.	Adult neurogenesis in vitro and in vivo	<b>Jonathan Kipnis</b>	University of Virginia
22.	Neuronal polarity: Cellular and molecular mechanism	<b>Alfredo Cáceres</b>	Inst. Inv. Med. Mercedes y Martín Ferreyra
23.	Calcium channels visualization using TIRF microscopy	<b>Carlos Más</b>	National U. of Cordoba Olympus Latin America
24.	Glucose transport into skeletal muscle	<b>Abram Katz</b>	Karolinska Institute
25.	Methods of investigation in energy metabolism	<b>Daniel Botero</b>	Universidad de La Sabana
26.	Cancer Genetics	<b>Ignacio Briceño</b>	Universidad de La Sabana
27.	Moving messages – How to localize mRNAs in vivo	<b>Jeffrey E. Gerst</b>	Weizmann Institute of Science
28.	Strategies for studying cytoskeletal proteins of parasites as drug targets.	<b>Javier Ambrosio</b>	Universidad Nacional Autonoma de Mexico
29.	Turning it on and turning it off	<b>Martha Sorenson</b>	Federal University of Rio de Janeiro
30.	Hormones responses to exercise	<b>João Pedro Werneck de Castro</b>	Federal University of Rio de Janeiro
31.	Exercise: A tool to understand metabolism	<b>Adriana Bassini</b>	Federal University of State of Rio de Janeiro
32.	Closing	<b>L. C. Cameron</b>	Federal University of State of Rio de Janeiro



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