

THE 18TH TWAS-ROLAC YOUNG SCIENTISTS CONFERENCE, WILL TAKE PLACE IN RIO DE JANEIRO, FROM NOVEMBER 4TH TO 5TH, 2015 AT THE BRAZILIAN ACADEMY OF SCIENCES.

THE GENERAL AIM OF THIS CONFERENCE IS TO BRING TOGETHER A GROUP OF THE MOST TALENTED YOUNG RESEARCHERS PURSUING RESEARCH IN THE INTERCONNECTED AREAS WITH BIOLOGY.

NOWADAYS THE BIOLOGY CROSS-TALK WITH DIFFERENT SCIENCES, FOR INSTANCE: ENGINEERING, PHYSICS, MATHEMATICS. THIS INTERACTION CONTRIBUTES TO OPEN THE CONCEPTS IN BIOLOGY USING TOOLS FROM OTHER AREAS WHAT PERMITS DERIVATIONS OF APPLICATIONS OF NEW KNOWLEDGE AND DISRUPT THE FRONTIERS OF IT SCIENCE.

THIS MEETING AIMS TO PUT TOGETHER YOUNG SCIENTISTS FROM LATIN AMERICAN AND CARIBBEAN REGION TO FOSTER COLLABORATIONS AND THE EXCHANGE OF EXPERTISE.

ORGANIZATION OF VIVALDO MOURA NETO AND INVITED CO-ORGANIZERS: DEBORA FOGUEL AND FLAVIA CARVALHO ALCANTARA GOMES



18TH TWAS-ROLAC YOUNG SCIENTISTS CONFERENCE



Cross-Talk of Biology with other Sciences

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Cross-Talk of Biology with other Sciences

ORGANIZED BY:



INSTITUTIONAL SUPPORT:



NOVEMBER 4TH AND 5TH
BRAZILIAN ACADEMY OF SCIENCES

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NOVEMBER, 4th

9H OPENING LECTURE

CHAIR: VIVALDO MOURA NETO IECPN, BRAZIL

JORGE ELIAS KALIL FILHO USP, BRAZIL

DESENVOLVIMENTO DE VACINA CONTRA DENGUE:
DA BANCADA AOS TESTES CLÍNICOS

10H COFFEE BREAK

INTERSECTION BETWEEN BIOLOGY, MATH AND PHYSICS

CHAIR: VIVALDO MOURA NETO IECPN, BRAZIL

10H30 KARINA GARCÍA MARTÍNEZ CENTER OF MOLECULAR
IMMUNOLOGY, CUBA

MATHEMATICAL MODELS OF THE IMPACT OF IL2 MODULA-
TION THERAPIES ON T CELL DYNAMICS: PREDICTION OF A
NOVEL THERAPEUTIC APPROACH BASED IN IL2 MUTAINS

10H50 ADRIANA BASTOS CARVALHO UFRJ, BRAZIL

CARDIAC DIFFERENTIATION OF HUMAN PLURIPOTENT STEM CELLS

11H10 MARCELO COLAÇO UFRJ, BRAZIL

BAYESIAN TECHNIQUES APPLIED
TO BIO-HEAT-TRANSFER PROBLEMS

11H30 SEBASTIÃO PRATAVEIRA USP, BRAZIL

NEW IDEAS FOR CANCER DIAGNOSIS USING LIGHT

11H50 DISCUSSION

12H10 LUNCH

ECONOMY AND INNOVATION IN SCIENCE EDUCATION

CHAIR: DEBORA FOGUEL UFRJ, BRAZIL

13H40 CECILIA BAÑUELOS TECHNOLPOLI, CINVESTAV, MEXICO

NOVEL STRATEGIES TO STRENGTHEN INNOVATION
IN EDUCATIVE INSTITUTIONS

14H ANDRÉS ROMERO-CARVAJAL PONTIFICIA UNIVERSIDAD
CATÓLICA DEL ECUADOR, ECUADOR

PROMOTING BASIC SCIENCE AND TRANSLATIONAL RE-
SEARCH IN ECUADOR THROUGH DEVELOPMENTAL BIOLOGY

14H20 MIGUEL DE CARVALHO PONTIFICIA UNIVERSIDAD CATÓLICA DE
CHILE, SANTIAGO, CHILE

SOME MATHEMATICAL AND STATISTICAL ASPECTS
OF BLACK SWAN EVENTS

14H40 DISCUSSION

GENETICS AND EVOLUTION

CHAIR: FLAVIA GOMES UFRJ, BRAZIL

15H FRANCISCO CUBILLOS UNIVERSIDAD DE SANTIAGO DE CHILE, CHILE

UNDERSTANDING THE ROLE OF INTERGENIC REGIONS
SHAPING NATURAL PHENOTYPIC VARIATION IN YEAST

15H20 JENNIFER ALCAINO GORMAN UNIVERSIDAD DE CHILE, CHILE

GENETIC CONTROL AND REGULATION OF THE
BIOSYNTHESIS OF ISOPRENOIDS IN THE RED YEAST
XANTHOPHYLLOMYCES DENDRORHOUS

15H40 MAICKEL ARMENTEROS CENTRO DE INVESTIGACIONES MARINAS,
UNIVERSIDAD DE LA HABANA, CUBA

WHY USE NON-BIOLOGICAL TOOLS IN MARINE BIOLOGY?
STUDY CASES FROM CUBA (CARIBBEAN SEA)

16H DISCUSSION

NOVEMBER, 5th

9H OPENING LECTURE

CHAIR: DEBORA FOGUEL UFRJ, BRAZIL

CLÁUDIO BIFANO

10H COFFEE BREAK

NEUROSCIENCE AND ITS INTERFACES WITH COMPUTATION, PHYSICS AND CHEMISTRY

CHAIR: FLAVIA GOMES UFRJ, BRAZIL

10H30 JEAN FABER UNIFESP, BRAZIL

HYBRID BRAIN COMPUTER INTERFACES
WITH CROSSMODAL FEEDBACK

10H50 ADRIANO TORT BRAIN INSTITUTE, UFRN, BRAZIL

COMPUTATIONAL APPROACHES
TO NEUROSCIENCE RESEARCH

11H10 PATRICIA GARCEZ UFRJ, BRAZIL

THE CENTROSOME IN BRAIN FORMATION
AND MALFORMATION

11H30 AGUSTIN ANASTASIA INIMEC-CONICET-UNC, ARGENTINA

BRAIN-DERIVED NEUROTROPHIC FACTOR (BDNF) AND
THE GENETIC SUSCEPTIBILITY FOR CENTRAL NERVOUS
SYSTEM DISORDERS

11H50 BRUNO PONTES UFRJ, BRAZIL

MEMBRANE MECHANICAL PROPERTIES ORCHESTRATE
CELL FUNCTIONS

12H10 MARCELO FARINA UFSC, BRAZIL

MECHANISMS MEDIATING
METHYLMERCURY-INDUCED NEUROTOXICITY

12H30 DISCUSSION

13H LUNCH

NEGLECTED DISEASES AND THEIR INTERPLAY WITH ENVIRONMENT

CHAIR: DEBORA FOGUEL UFRJ, BRAZIL

14H30 JOSE G. JUAREZ CES/UVG, GUATEMALA

TACKLING OLD FOES: ABOVE AND BEYOND INTEGRATED
VECTOR MANAGEMENT FOR MALARIA, DENGUE AND
CHAGAS DISEASE CONTROL

14H50 GABRIELA BETTELLA CYBIS UFRGS, BRAZIL

PHYLODYNAMICS: INTEGRATING MULTIPLE SOURCES
OF DATA TO UNDERSTAND EPIDEMICS

15H10 VERÓNICA CRESPO-PÉREZ FACULTAD DE CECOLOGÍAYCIENCIAS
EXACTAS Y NATURALES, PUCE

GLOBAL CHANGES AND INVASIVE PEST
DISTRIBUTION IN THE TROPICAL ANDES

15H30 DISCUSSION

15H45 CARLOS ALBERTO ARAGÃO DE CARVALHO FILHO UFRJ, BRAZIL

THE ROLE OF BRAZIL IN THE GLOBAL BIOECONOMY

CHAIR: VIVALDO MOURA NETO IECPM, BRAZIL

16H45 CLOSING REMARKS

ROUND TABLE: VIVALDO MOURA NETO, CARLOS ARAGÃO,
ESPER CAVALHEIRO (UNESP), ROLF MENTLEIN

(UNIVERSITY OF KIEL), DEBORA FOGUEL AND

FLAVIA GOMES