



# VI FÓRUM CHINA-AMÉRICA LATINA DE INOVAÇÃO E TECNOLOGIA I SIMPÓSIO INTERNACIONAL DE INOVAÇÃO DO CEARÁ

# CEARÁ STATE UNIVERSITY INSTITUTE OF BIOMEDICAL SCIENCES (ISCB-UECE)

**RESEARCH & DEVELOPMENT CENTER** 

# INSTITUTE OF BIOMEDICAL SCIENCES A Complete Equipment



#### ISCB-INFRASTRUCTURE

- 4800 m<sup>2</sup> complex bulding;
- 12 Laboratories-Pharmacology and Experimental Therapeutics;
- 2 Core Facilities;
- 2 Cell Culture Rooms;
- 3 seminar rooms and 1 Lecture room with vídeo conference facility;
- 3 administrative rooms;
- 1 electric power house, 2 water towers and 2 power generators (500 kVA)
- Animal Research Facility (Rodent Vivarium)
- Staff of 29 PhDs

#### **LABORATORIES**

- **✓ ELECTROPHYSIOLOGY**
- **▼RENAL PHARMACOLOGY**
- BIOPHYSICS AND PHARMACOLOGY OF THE PULMONARY SYSTEM
- ENDOCRINE PHARMACOLOGY
- CARDIOVASCULAR PHARMACOLOGY
- NEUROPSYCHOPHARMACOLOGY

- PHARMACOLOGY OF INFLAMMATION AND PAIN
- MOLECULAR BIOLOGY AND GENETICS
- ORGAN PERFUSION FOR TRANSPLANTS
- PHARMACOLOGY OF ANTITHROMBOTIC DRUGS
- SIGNAL TRANSDUCTION

#### **PURPOSE**

- TRAIN YOUNG SCIENTISTS
- CONDUCT PRECLINICAL STUDIES

  —NEW DRUGS DEVELOPMENT

  (RESOLUÇÃO № 466/2012-CNS 
  LEI FEDERAL № 8.080/1990; LEI

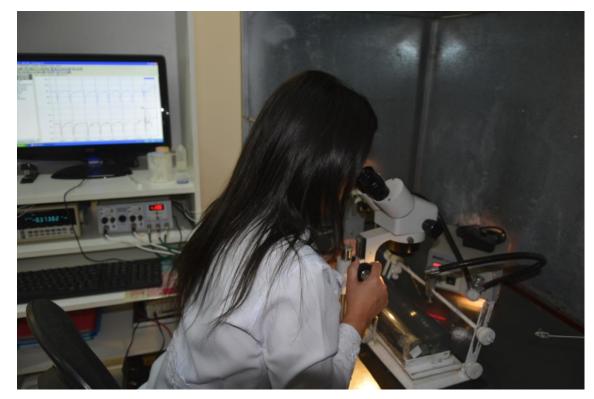
  FEDERAL № 8.142/1990)
- CONDUCT SAFETY
  PHARMACOLOGY STUDIES (ICH
  S7A, ICH S7B-EMA; FDA AND
  ANVISA-BRAZILIAN
  REGULATORY AGENCY)

- CONDUCT TOXICOLOGY STUDIES
- IDENTIFICATION OF NEW THERAPEUTIC TARGETS/NEW INDICATIONS
- WORK WITH PARTNERS FROM CONCEPTION TO CLINICAL TRIALS

#### PARTNERS AND COLLABORATORS

- DIABETES AND HYPERTENSION CENTER
- FORTALEZA GENERAL HOSPITAL-KIDNEY TRANSPLANT DIVISION
- ORGANIC CHEMISTRY DEPARTMENT-ACTIVE COMPOUNDS FROM PLANTS
- INORGANIC CHEMISTRY DEPARTMENT-SYNTHETIC COMPOUNDS

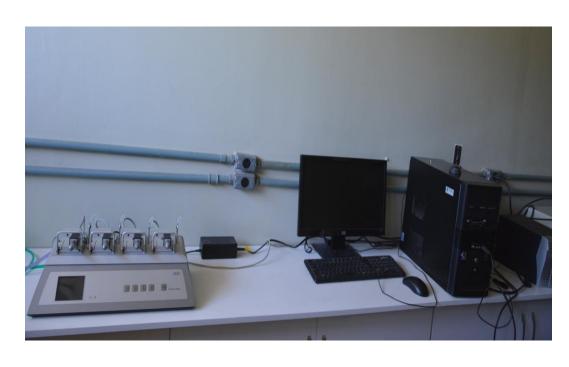
- BIOMEDICAL INSTITUTE-UFC
- UNIVERSITY OF SÃO PAULO BIOMEDICAL INSTITUTE
- BIOMEDICAL INSTITUTE OF THE FEDERAL UNIVERSITY OF RIO DE JANEIRO
- IRONWOOD PHARMA



**Renal Microperfusion** 



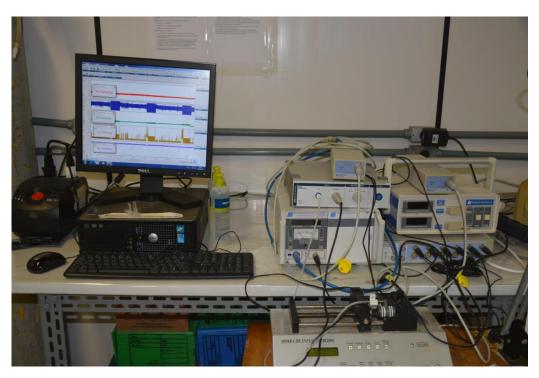
**Calcium Signaling** 



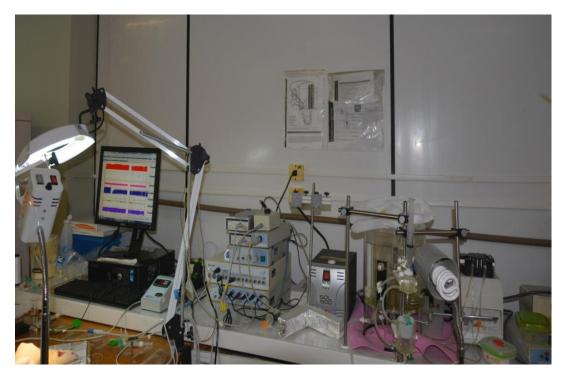
**Microvessels Reactivity** 



**Nerve Action Potential** 



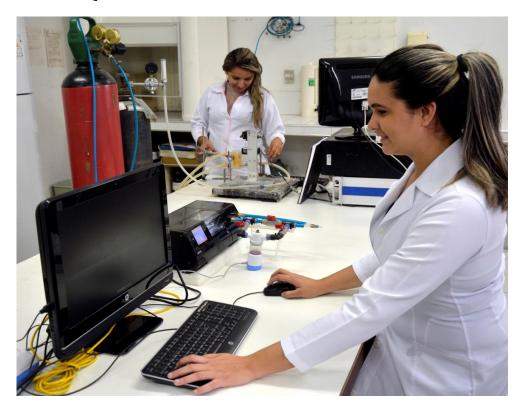
Renal Hemodynamics and tubular function



Systemic Hemodynamics and Cardiac Eletromechanics



Patch-Clamp- Ion Channel Studies



FlexVent- In Vivo Pulmonary Pharmacology



**Cell Culture and Cell Signaling Studies** 



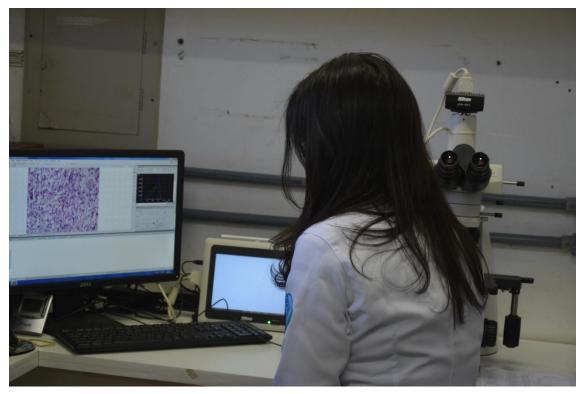
Cell Signaling- ImunoBlots and PCR



Neuropatic Pain Study Apparatus



**Microscopy** 



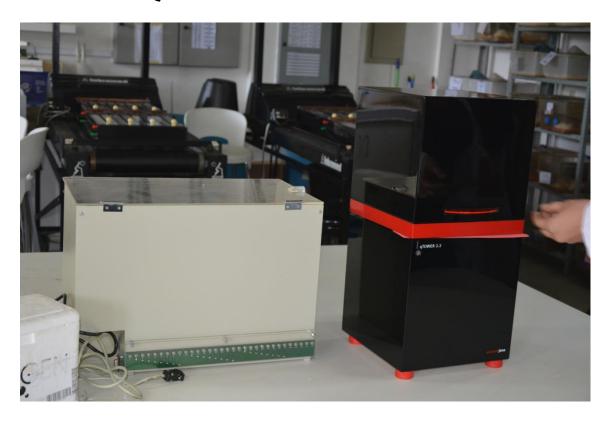
**Evaluation of the Pharmacology of New Antilnflammatory Drugs** 



Pharmacology in Isolated Tissues-Organ Bath



**Kidney Perfusion** 



**Gene Expression** 



Telemetry-Chronic Evaluation of Physiological Parameters in Vivo



**Ussing Chambers-Membrane Permeability Studies** 

#### **SMALL RODENT VIVARIUM**



#### **SMALL RODENT VIVARIUM**







# THANK YOU!

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