

Instituto do Cérebro Brain Institute



A Transdisciplinary Research and Clinical Center

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Director

Porto Alegre, Rio Grande do Sul, Brazil



Porto Alegre: QuickFacts

Foundation: 1772.

Population: 1.5 million inhabitants

Population Metropolitan Area: 4.0 million inhabitants

Ethnics: European immigrants (Portuguese, Italian, German, Polish, Spanish, ...) and more than 30 others ethnics groups from Asia, Africa and Indigenous people.

Area: 496.83 km².

Population Density: 2,876 hab/km².

GNP per capita (2002): US\$ 3,030.00

Best “living quality” in Brazilian capitals



PUCRS's Health Campus



**28 – University
Hospital (HSL)**

27 – Clinical Center

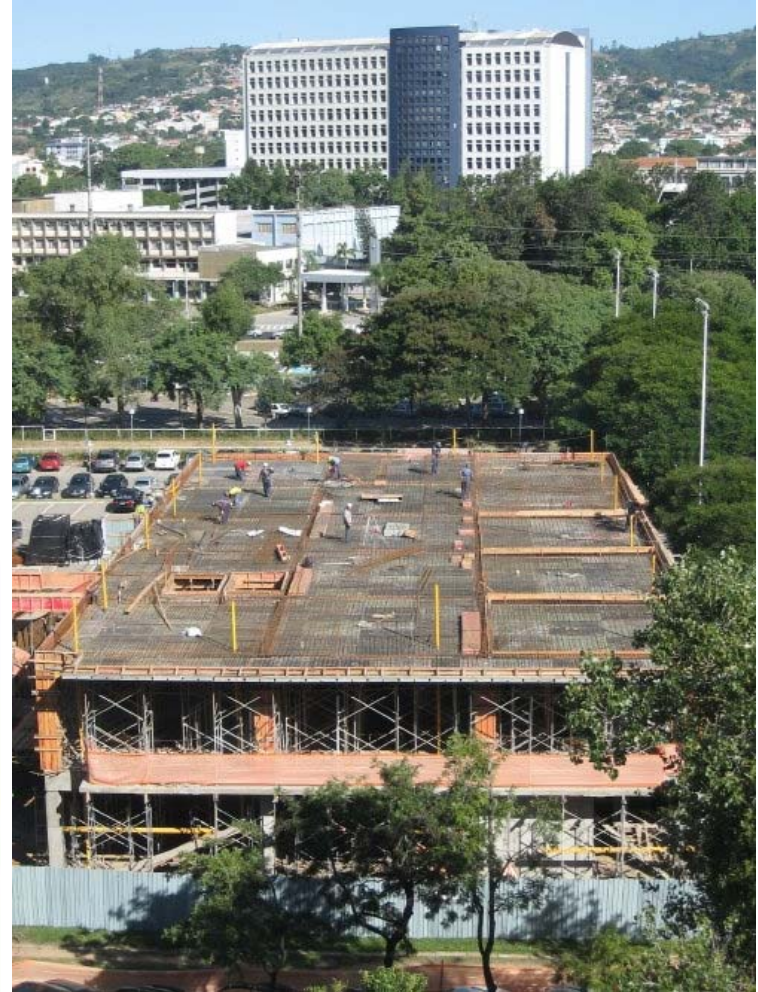
**29 – Rehabilitation
Center**

**31 – School of
Physical Education**

30 – Sports Center

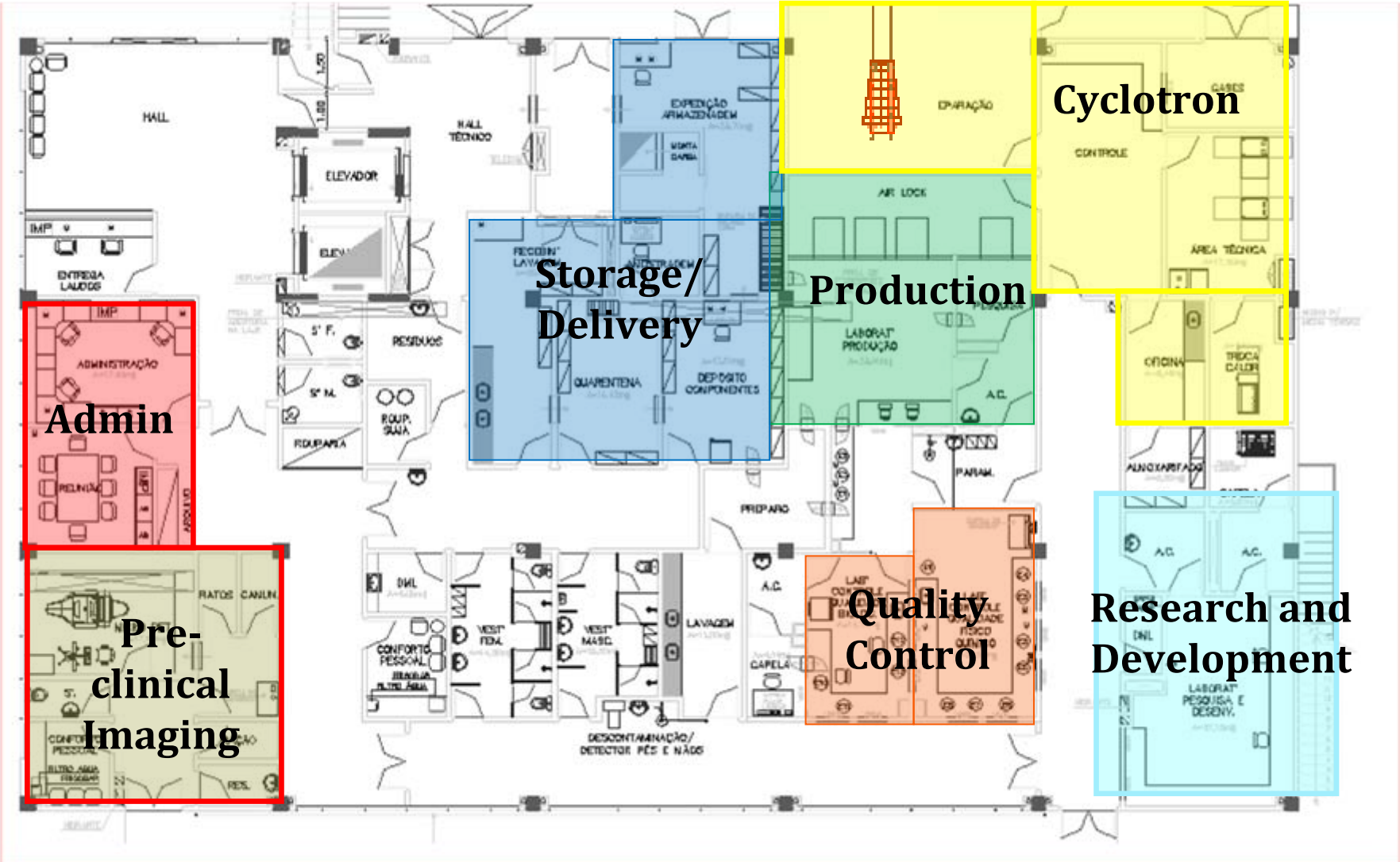
63 – Brain Institute

Brain Institute - Neuroimaging Center

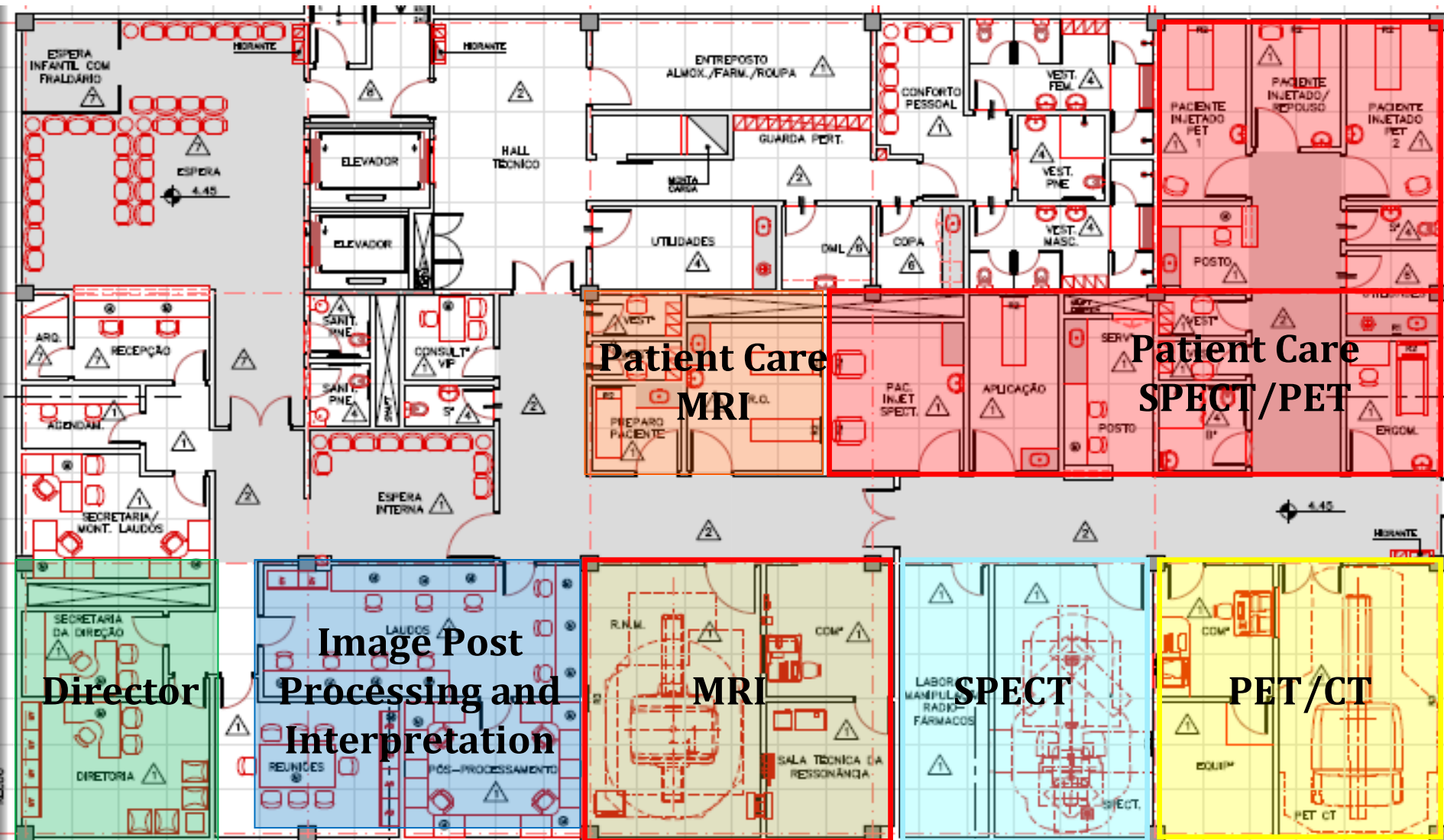


**Currently in the 12th week of Construction
Expected Inauguration in November of 2011**

Brain Institute – 1st Floor



BrainInstitute - 2nd Floor



Imaging Equipment

Cyclotron – GE PETtrace 8



Rodent SPECT/PET/CT – GE Triumph



MRI – GE SignaHDxt 3.0T



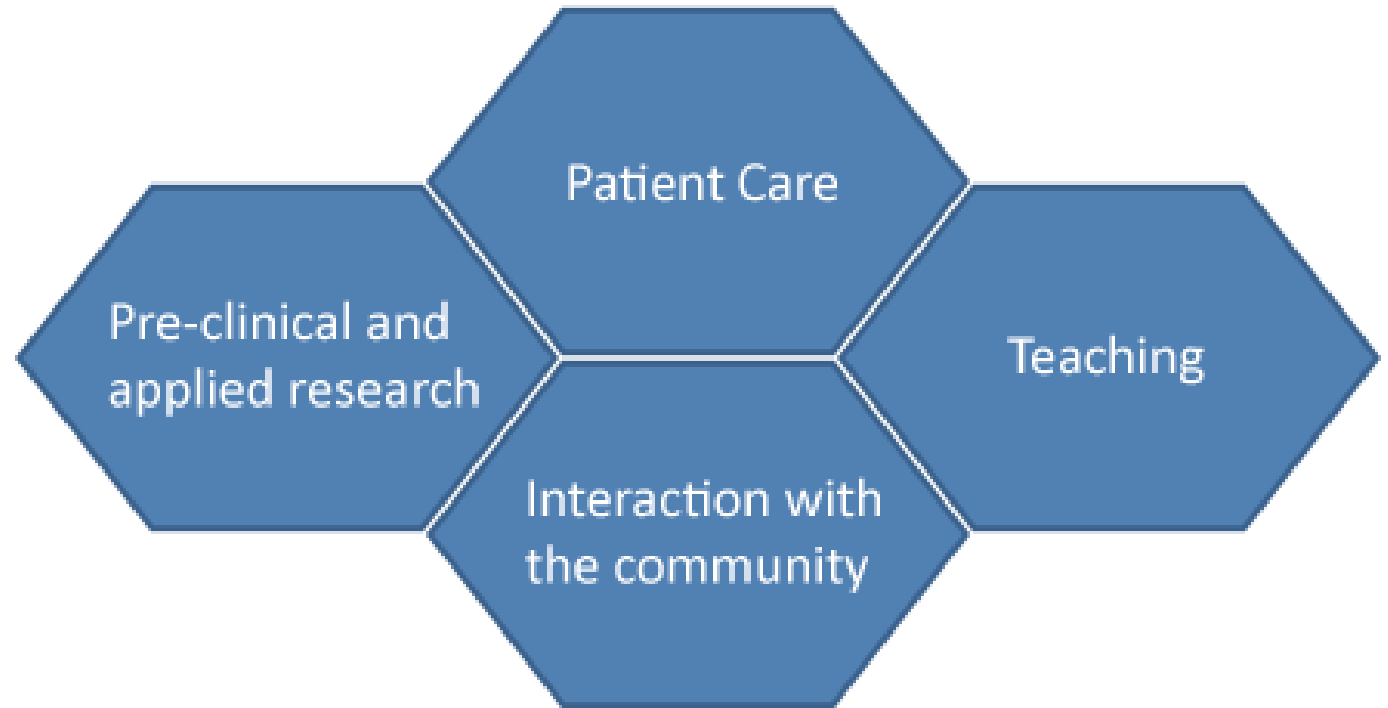
SPECT – GE Infinia



PET/CT – GE Discovery 600



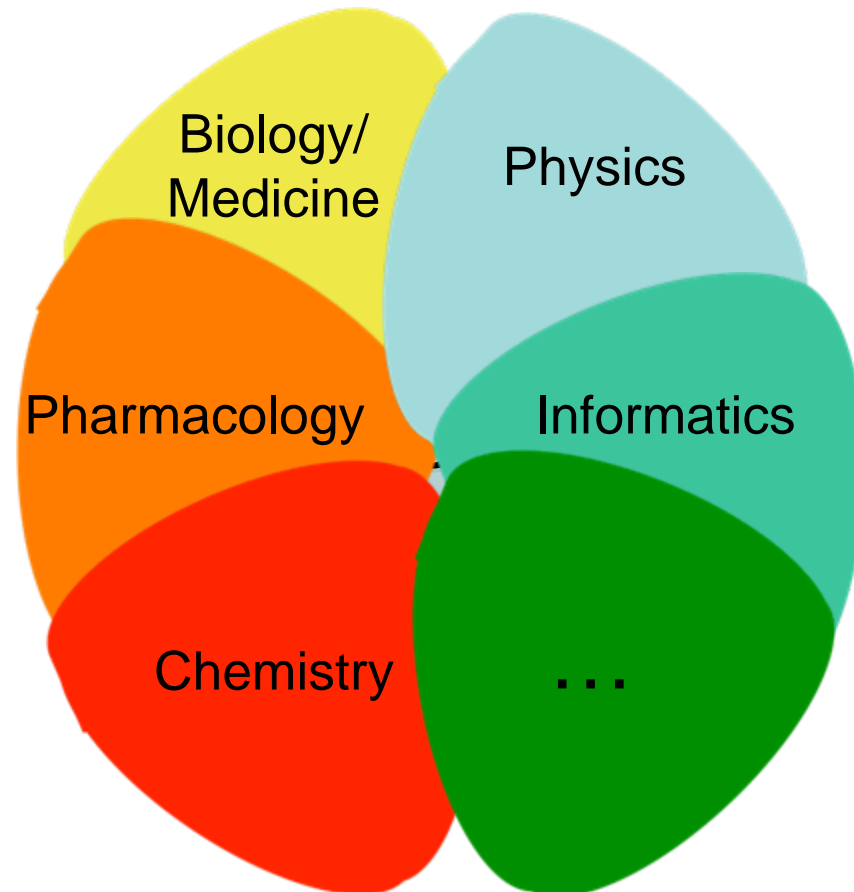
A Transdisciplinary Approach




A Transdisciplinary Approach to Knowledge

Transdisciplinary, Not Multidisciplinary

Generate New Medical Knowledge



Transdisciplinary Approach

What can  be?

Psychology

Journalism

Philosophy

Linguistics

Economics

...

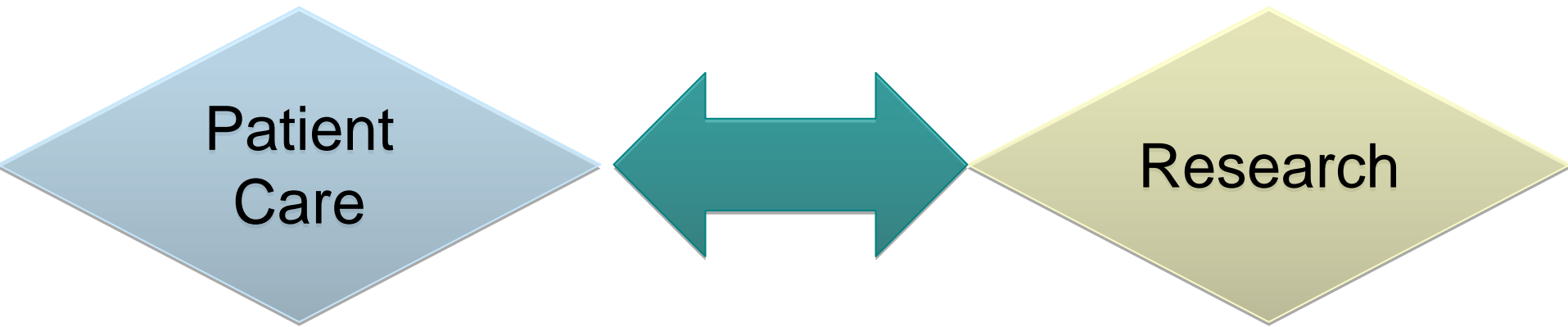
Patient Care

Phase I – Diagnosis and treatment with state of the art and highly trained neuroimagers

Phase II – Treatment counseling at-a-distance

Phase III – Combining Treatment and Research

Research: A two-way path



Advantages:

- Highly trained personnel
- Healthcare patients generate research data
- Ease of patient recruitment
-

Research

Partnerships:

- Memory Center
- Epilepsy Program
- Cellular Signaling and Cell Therapy Laboratories
- Neurodevelopmental and Cognitive Sciences Labs
- Basic Neuroscience (use of micro-PET)
- Pharmacological Labs

Research

Cyclotron – Development of new radio-ligands

- Pharmacy
- Radiopharmaceutical unit and Chemistry
- Organicsynthesis

Human scanners

- Multimodal Imaging
- Children and adults

Research

**Patient
Care**



Research



Community



Ongoing Research at the Brain Institute

Applied and Translational Research

- **Child Development**

- **Project PI Marie Curie (Brazil (InsCer-PUCRS), Canada, Chile, France, Ireland)**

- **“INECHD”, International Network for Early Childhood Health Development.**

- **AIM: strengthen collaborative interdisciplinary research and knowledge transfer on early childhood health development and well-being among research institutions in Brazil, Canada, Chile, France and Ireland.**

Ongoing Research at the Brain Institute

Applied and Translational Research

- **Epilepsy : Refractory epilepsy (Porto Alegre, Epilepsy Surgery Program)**

Andre Palmmini, MD, PhD

Jaderson C. DaCosta, MD, PhD

Magda L. Nunes, MD, PhD

Mirna W. Portuguese, PhD

- **Stem Cells: Adult Stem Cells**
 - **Autologous Bone Marrow Stem Cells Transplantation in Patients With Temporal Lobe Epilepsy.**
 - **Clinicaltrials.gov, Identifier NCT00916266.**

Ongoing Research at the Brain Institute

Applied and Translational Research

- **Memory Center – Memory persistence.**

Ivan Izquierdo, MD, PhD

Martin Cammarota, PhD



PUCRS



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Instituto do Cérebro

Thank you for your attention!

Visit us at <http://www3.pucrs.br>