Brazili

Each MSI Institute in Brazil takes the form of a network of excellence. A lead institution, or “main node,” links as many as twenty-seven affiliated centers around the country. While the majority of the institutions involved already meet the stringent standards of the MSI, a program of Centers in Development links emerging research institutions with these MSI networks, thereby extending the mentoring function of the MSI.

Of the seventeen MSI Institutes selected in Brazil’s first MSI competition in 2002, two operate in strategic fields as defined by Brazil’s Ministry of Science and Technology. One focuses on Brazil’s semi-arid northwest region, and the other on the country’s coastal resources. The remaining fifteen were selected in a competition open to applicants in any field of science. All seventeen underwent a rigorous competitive process of international peer review.

A second-round competition is underway as of 2005.

Brazil’s MSI Institutes, including name, main node, coordinator, and number of affiliated centers, are:

- Global Integrated Advancement of Mathematics in Brazil and Contribution to the Region, Instituto Nacional de Matemática Pura e Aplicada, Jacob Palis, 27 centers
- Institute Factory of the Millennium, Universidade de São Paulo–São Carlos, João Fernando Gomes de Oliveira, 6 centers
- Mangroves: Structure, Function, Evolutive History, Sustainable Use, and Relationships to Other Ecosystems, Universidade Federal do Pará, Horácio Schneider, 6 centers
- Millennium Institute on Stellar and Galaxy Evolution in the Era of Large Telescopes: Implementation of Instrumentation for SOAR and GEMINI (MEGALIT), Universidade de São Paulo, Beatriz Leonor Silveira Barbay, 19 centers
- Integration of Genetic Breeding, Functional and Comparative Genome of Citrus, IAC/Centro de Citricultura Sylvio Moreira, Marcos Antônio Machado, 6 centers
- Integrated Strategies for Research and Control of Tuberculosis in Brazil: New Drugs and Vaccines, Diagnostic Tests and Clinical-Operational Evaluation, Universidade de São Paulo–Ribeirão Preto, Célio Lopes Silva, 17 centers
- Land Use Changes in Amazon: Climatic and Carbon Cycling Implications—Milênio LBA, Universidade de São Paulo, Paulo Eduardo Artaxo Netto, 13 centers
- Institute of Quantum Information, Universidade Federal do Rio de Janeiro, Luiz Davidovich, 9 centers
- Millennium Institute of Complex Materials, Universidade de Campinas, Fernando Galembek, 4 centers
- Institute of Nanosciences, Universidade Federal de Minas Gerais, Alao Silverio Chaves, 15 centers
- Water: A Mineral Approach, Universidade Federal de Minas Gerais, Virginia Sampaio Teixera Cinimelli, 10 centers
- Instituto Multidisciplinar de Materiais Poliméricos IMMIP, Universidade de São Paulo, Roberto Mendonça Faria, 17 centers
- Institute for Immunological Investigation, Universidade de São Paulo, Jorge Kaill, 7 centers
- Tissue Bioengineering: Cell Therapies for Chronic Degenerative Diseases, Fundação Oswaldo Cruz, Ricardo Ribeiro dos Santos, 13 centers
- Research Network on System-on-Chip, Microsystems and Nanoelectronics, Universidade de Campinas, Jacobus Willibrordus Swart, 7 centers
- Millennium Institute of the Semi-Arid: Biodiversity, Bio-Prospecting and Conservation of Natural Resources, Universidade Estadual de Feira de Santana, Ana Maria Giulietti, 23 centers
- Use and Appropriation of Coastal Resources, Fundação Universidade Federal de Rio Grande, Jorge Pablo Castelló, 15 centers

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The following MSI projects were selected in 2005:

Institute for Immunological Investigation, Jorge Kalil*

Millennium Institute of Semi-Arid Regions, Ana Maria Giulietti*

Integration of Environmental Approaches, Land Use and Social Dynamics in the Amazon: Human-Environmental Relations and the Challenge of Sustainability, Paulo Eduardo Artaxo Netto*

Micro- and Nanoelectronic Technologies for Integrated Intelligent Systems, Jacobus Willibrordus Swart*

Integrated Strategies for Research and Control of Tuberculosis in Brazil, Cello Lopes Silva*

Global and Integrated Advances in Mathematics and Regional Contributions, Jacob Palis*

Millennium Institute of Manufacturing, João Fernando Gomes de Oliveira*

Intolerance and Tolerance, Segment I: Induced Demand, Democracy, and Citizenship, Anita Wainort Novinsky

Millennium Institute of Vaccine Development and Manufacture, Ricardo Tostes Gazzinelli

The Social Dimension of Inequality: Indicators of Stratification and Social Mobility, Nelson do Valle Silva

The Use of Biodiversity as a Source of New Chemical Compounds Against Molecular Targets for Treatment of Malaria, Tuberculosis and Illnesses Caused by T-cell Lymphocytes, Luiz Hildebrando Pereira da Silva

Millennium Institute for Development of Drugs Based on Peptide Toxins, Marcus Vinicius Gomez

Institute of Nanotechnology, Belita Koiller

Productivity, Sustainability and Utilization of the Humpback Whale Ecosystem, Eurico Cabral de Oliveira Filho

Implementation and Growth of Telemedicine in Brazil, Eduardo Massad

Network of Gene Therapies, Rafael Linden

The Impact of Violence on Mental Health in Brazil, Jair de Jesus Maria

Millennium Institute of Quantitative Information, Amir Ordaogi Caldeira

Millennium Institute of Complex Fluids: Liquid Crystals, Magnetic Fluids and Biological Applications, Antonio Martins Figueredo Neto

Institute for Nonlinear Optics, Cid Bartolomeu de Araújo

Millennium Institute of Innovation and Development of New Pharmaceuticals and Drugs, Eliezer Jesus de Lacerda Barreiro

Productivity Increases in Brazilian Agriculture via Biological and Transgenic Nitrogen Fixation, Fabio de Oliveira Pedrosa

Genetic Ancestry and National Identity – Biomedical and Forensic Implications, Francisco Mauro Salzano

Techniques to Combat Plant Poisoning in Herbivores in Brazil and the Study of Toxic Plants in the North, Northeast and Central West, Franklin Riet Correa

Millennium Institute of Complex Materials, Henrique Elisi Toma

Millennium Institute of Structural Biology in Biomedicine and Biotechnology, Jerson Lima da Silva

Urban Studies: Territory, Social Cohesion and Democratic Governance, Luiz Cesar de Queiroz Ribeiro

Transfer of Nutrients and Heavy Metals in Land-Ocean Interactions in Five Basins of the Southeastern and Northeastern Brazilian Coast, Luiz Drude de Lacerda

Evolutionary Psychology, Maria Emilia Yamamoto

Historical Dictionary of Brazilian Portuguese (16th, 17th and 18th Centuries), Maria Tereza Camargo Biderman

Origin and Evolution of Migration Among the First Human Groups of Southeastern Piauí, Niede Guidon

Redox Reactions: Molecular Bases and Therapeutic Implications, Ohara Augusto

Geophysical and Tectonic Studies of Borborema Province, Reinhardt Adolfo Fuck

Multidisciplinary Institute of Polymeric Materials, Yvonne Primerano Mascarenhas

*Renewal