

# Heitor Mynssen

## Curriculum Vitae

Brazilian Network of Neurobiodiversity  
Federal University of Rio de Janeiro  
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### Education

- 2023–present **PhD student in Neuroscience**, *Institute of Biomedical Sciences – Morphological Science Department*, Federal University of Rio de Janeiro, Brazil.
- 2020—2023 **M.Sc. in Physics**, *Institute of Physics*, Federal University of Rio de Janeiro, Brazil.  
Morphological Reconstruction And Analysis Of Mammalian Brains
- 2015—2020 **Bachelor in Medical Physics**, *Institute of Physics*, Federal University of Rio de Janeiro, Brazil.  
Functional Connectivity Pattern in Experienced Users of Ayahuasca After Low Dose Ingestion

### Research Projects

- 2019–present Morphological Reconstruction And Analysis Of Mammalian Brains
- 2018–2020 Functional Connectivity Pattern in Experienced Users of Ayahuasca

### Research Profile

#### Primary Interests

Biological Physics  
Computational and Numerical Methods  
Comparative Neuroanatomy

#### Methods of Interests

Image Processing  
Surface Reconstruction  
Neuroimaging

#### Working Languages

Portuguese (native)  
English  
French

### Working Experience

- 2019-2023 Development of Stitcher Package for cortical reconstruction ([Link here](#))
- 2017-2022 Physics and Mathematics Tuition

### Student Grants

- 2020-2023 Serrapilheira Institute - Student Grant for Development of Teaching, Research and Outreach.
- 2018-2019 Neuroimage and Psicophysiology Laboratory - Scientific Initiation Grant

### Publications

#### In preparation

**Mynssen, H.**; Avelino-de-Souza, K.; Chaim, K.; Patzke, N. & Mota, B. *Stitcher: a brain reconstruction tool for non-model animals' segmentation*

### Journal Articles

- 2024 Avelino-de-Souza, K.; **Mynssen, H.**; Chaim, K.; Parks, A.; Ikeda, J. M. P., Cunha, H. A.; Mota, B. & Patzke, N. Anatomical and Volumetric Description of the Guiana Dolphin (*Sotalia guianensis*) Brain from an Ultra-High-Field Magnetic Resonance Imaging. *Brain Structure and Function*. [10.1007/s00429-024-02789-1](https://doi.org/10.1007/s00429-024-02789-1)

### In Conference Proceedings

- 2024 **Mynssen, H.**; Boch, M.; Patzke, N.; Mars, R. B.; Mota, B.; Avelino-de-Souza, K. *Costurando cérebros: um novo método de reconstrução de superfície cortical para animais não-modelo*. In: Jornanda do Programa de Pós-Graduação em Ciências Morfológicas 2024 (Jornada PCM 2024) - Universidade Federal do Rio de Janeiro, 2024, Rio de Janeiro, Brazil
- 2019 **Mynssen, H.**; Ramos, L. R.; Sanchez, T. A.; Fernandes, O. *EFEITOS DA AYAHUASCA NA CONECTIVIDADE FUNCIONAL DO CÉREBRO: UM ESTUDO POR NEUROIMAGEM E ESCALAS PSICOMÉTRICAS*. In: X Semana de Integração Acadêmica da UFRJ (SIAC 2019) - Universidade Federal do Rio de Janeiro, 2019, Rio de Janeiro. Anais da X Semana de Integração Acadêmica da UFRJ, 2019

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### Experiences and Events

- 2020 **Internship in Radiotherapy**, *Sírio-Libanês Hospital*, São Paulo, SP, Brazil.
- 2018 **III Journey of Medical Physics**, *Federal University of Rio de Janeiro*, Rio de Janeiro, RJ, Brazil.
- 2018 **Physics Summer Program - General Relativity**, *Brazilian Center of Physics Research*, Rio de Janeiro, RJ, Brazil.
- 2016 **II Journey of Medical Physics and Internship Program in Medical Physics at INCA**, *Cancer National Institute*, Rio de Janeiro, RJ, Brazil.
- 2014 **Certificat Intermédiaire de Langue Française B1 - Sorbonne Université**, *Brazilian Center of Physics Research*, Rio de Janeiro, RJ, Brazil.
- 2011 **First LEGO League OCE Delft the Netherlands**, *Brazilian Center of Physics Research*, Delft, South Holland, Netherlands.