EPICENTER Innsbruck
Institute of Clinical Epidemiology | Public Health |
Health Economics | Medical Statistics and Informatics

MEDICAL UNIVERSITY INNSBRUCK

PhD Position: Generative Foundation Models for ICU Data

Project:	GPT-MEDIC (ERC Starting Grant)
Host:	Institute of Clinical Epidemiology, Public Health, Health Economics, Medical Statistics and Informatics (EPICENTER), Medical University of Innsbruck
Supervisor:	Patrick Rockenschaub
Start:	As soon as possible (flexible)
Duration:	3–4 years, fully funded

In this ERC-funded PhD, you will advance generative pre-training for clinical events in the ICU.

ICU data aren't like text or images. Events arrive at irregular intervals, values are continuous, and what gets measured depends on clinical decisions that vary between hospitals and patient states. As a result, previous models have struggled to generalise beyond the hospital they were trained on. Generative pre-training offers a promising path to a new class of models that work across settings and can support prediction of many different clinical outcomes at once.

To fuel your models, you will have access to one of the largest multicentre ICU resources to date (~1M patients, ~33B clinical events). Around half of this data will be available from day one, allowing you to start your experiments immediately. Your research will be in close collaboration with intensivists and data experts at Amsterdam UMC, UCL, and University of Cambridge who have years of experience making ICU data usable for research.

What we are looking for

- MSc in computer science, statistics, or a related quantitative field
- Proficiency in Python and experience with PyTorch, TensorFlow, or JAX
- Demonstrated ability to complete technical projects (thesis, publication, or GitHub repo)
- Familiarity with clinical data is helpful but not required

Working language is English (German not required). You will be expected to relocate to Innsbruck, Austria—a lively university city at the heart of the Alps.

What we offer

- Fully funded PhD position
- Salary per university collective agreement (€ 39,005.40 gross/year, 30 hours/week)
- Access to a modern GPU cluster
- Conference travel and active support towards publications

How to apply

Email Patrick Rockenschaub (patrick.rockenschaub@i-med.ac.at) with your CV, a GitHub repo or code sample, and a cover letter explaining why your background is a good fit for this project.

Deadline: 25 January 2026