

AI Research at the Ellison Institute of Technology

We're a team of **scientists** and **engineers exploring the frontiers of AI** - from first principles to foundation models, from experiments to impact.

Grounded in **responsible AI**, **open collaboration**, and **measurable results**, we're **defining the next generation of models for scientific discovery**.

AI Research Interest Areas

- **Health Foundation Models (HealthFM):** Multimodal AI models combining biomolecular, clinical, imaging and text data to unlock new insights in health and biology.
 - *BioFM* – molecular structures and dynamics
 - *PatientJourneyFM* – longitudinal patient data
- **Scientific AI:** Robust, interpretable models that can reason, simulate and design across science and engineering.
- **Causality & Decision Science:** Making AI more explainable and reliable through causal and uncertainty modelling.
- **AI Agents & Automation:** Intelligent systems that plan, reason and accelerate discovery.
- **Imaging & Simulation:** Computer vision and physics-based AI to study complex biological and physical systems.

EIT Centre for Doctoral Training in the Fundamentals of AI

As a key research partner of the **Fundamentals of AI CDT**, the AI Research team at EIT offers students the chance to engage directly with cutting-edge, applied AI science.

Students can:

- **Collaborate with EIT researchers** on high-impact projects that bridge theory and real-world application
- **Explore areas** such as foundation models, causal reasoning, and scientific simulation
- **Gain hands-on experience** in an interdisciplinary environment where ideas move quickly from research to impact

Working alongside our teams, CDT students contribute to advancing the next generation of AI systems that drive progress in health, biology, and technology.