UCL ARTIFICIAL
INTELLIGENCE SOCIETY

NEXUS LABS

2026/27 Launch Event

THE UK'S LARGEST STUDENT-RUN AI RESEARCH LABS
& ONLY 2ND IN EUROPE SO LET'S CHANGE THAT!!!

UCL ARTIFICIAL
INTELLIGENCE SOCIETY

NEXUS LABS

ARYAN RISHI

Year 3,
MEng Robotics &
Artificial Intelligence,
Co-Head of Nexus Labs



EDWIN REDHEAD

Year 3,
MEng Robotics &
Artificial Intelligence,
Co-Head of Nexus Labs



AIDEN (YILIU) LI

Graduated,
Bsc Computer Science,
Former
Head of Nexus Labs



HOW DOES IT WORK?

UCL ARTIFICIAL
INTELLIGENCE SOCIETY

RESEARCH PILLARS

01 | COMPUTATIONAL FOUNDATIONS

02 | EMBODIED INTELLIGENCE

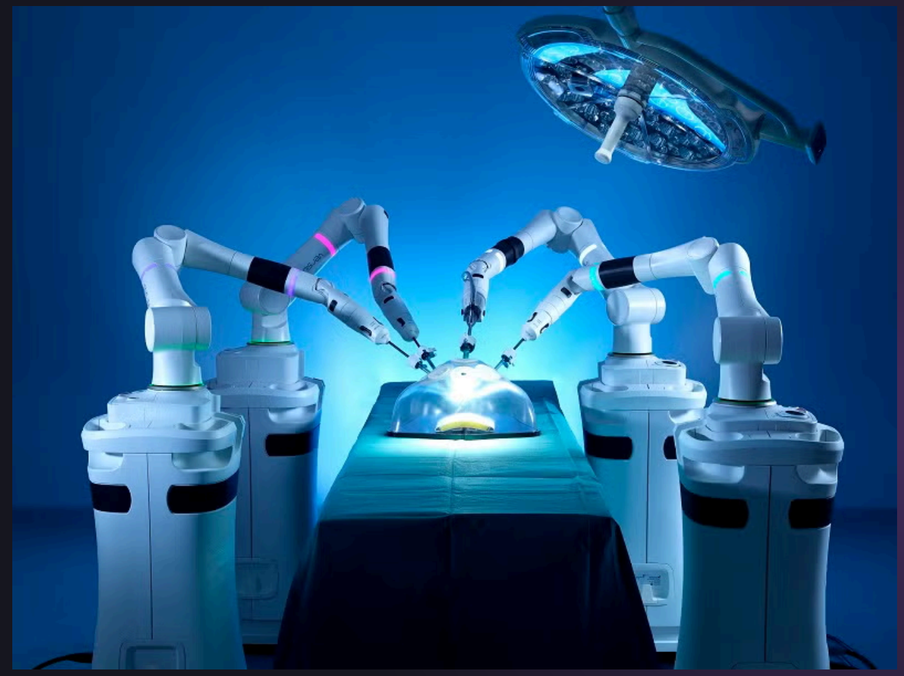
03 | HUMAN-CENTERED ARTIFICIAL INTELLIGENCE

04 | ARTIFICIAL INTELLIGENCE FOR BIOMEDICINE

AI FOR HEALTHCARE

Apply AI to improve understanding of biological systems, assist clinical decision-making, and accelerate medical discovery.

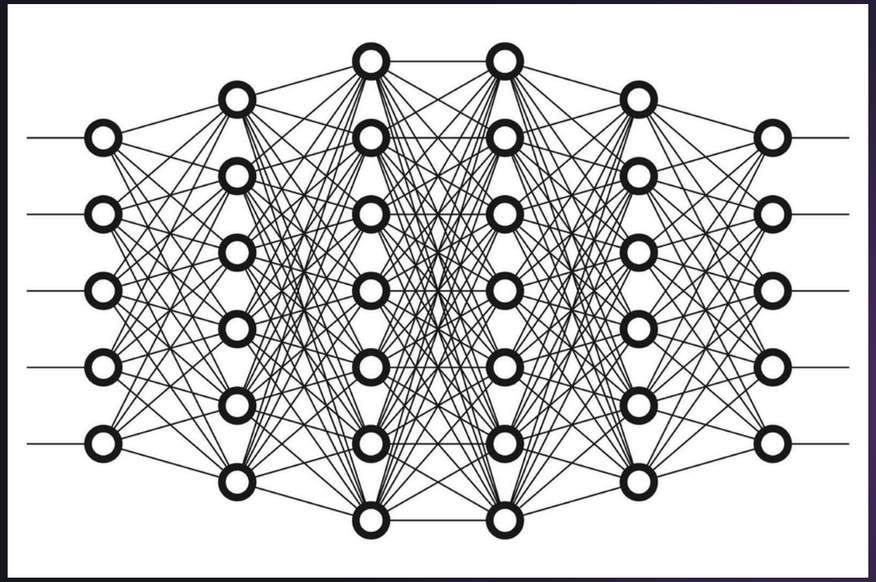
- Medical Imaging & Diagnostics
- Molecular Biology, Genomics, and Drug Discovery
- Public Health, Personalised & Preventive Medicine
- Clinical Decision Support & Healthcare Delivery



COMPUTATIONAL FOUNDATIONS

Focuses on advancing the theoretical and algorithmic bases of AI systems, including optimisation, learning theory, and scalable architectures.

- Machine Learning and Statistical Methods
- Optimisation and Numerical Computation
- Logic, Reasoning, and Knowledge Representation
- Probabilistic and Decision-Theoretic Foundations



HUMAN-CENTERED ARTIFICIAL INTELLIGENCE

Approach of AI that collaborates with and remains accountable to humans, ensuring systems serve human needs, reflect values, and stay understandable.

- Visual computing and multimodal perception
- Human–AI collaboration and interaction
- Explainability, safety, and transparency of AI
- Evaluation and human-in-the-loop learning



EMBODIED INTELLIGENCE

Studies how intelligence emerges through physical interaction with the environment, integrating robotics, perception, and control.

- Robot learning and control
- Vision-language-action models
- Sim2real transfer and embodied cognition
- Multi-agent and human–robot interaction



RESEARCH FRAMEWORK 2026-27

- Create pools of applicants with similar interests
- Facilitate team creation and exchange

- Presentations evaluated by peers during demos and poster sessions
- Facilitate exchange with researchers

- Act as a platform with high visibility for end-of-project presentations
- Support high-quality projects to top conferences

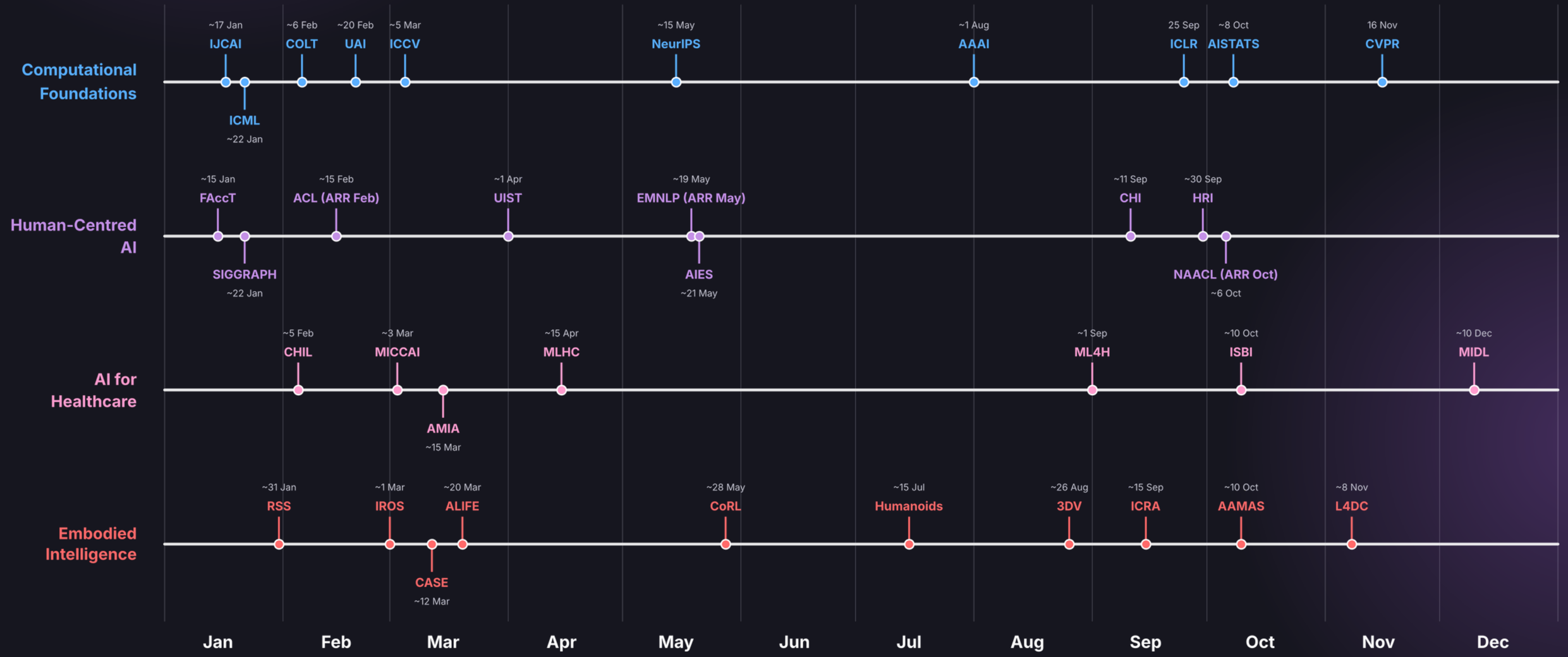
RESEARCH TRACK

- Advanced track
  - For highly motivated student-researchers with solid foundations
  - Work closely with academic and industry partners
- Exploratory track
  - Discover research and develop your skills
  - Enjoy a highly flexible environment to progress
- Both
  - Access to all our events
  - Showcase your work in front of society partners and fellow students

The Advanced Track is for members who wish to engage deeply in research and are ready to invest consistent time and effort toward ambitious projects, including some with demanding industry partners/ Participants are expected to show strong commitment, steady progress, and a solid technical foundation. We provide closer mentorship, professional support, and additional resources to help them reach their goals.

Selection and continuation are based on overall performance and engagement. Members who find it challenging to keep up with the expected pace may be moved to the Exploratory Track, where they can continue developing their skills and ideas in a more flexible and creative environment. The Exploratory Track remains an equally valuable and supportive space for learning and growth.

TIMELINE:



~ = typical date from recent cycles (confirm on each CfP) · ICLR & CVPR are confirmed 2027 dates · deadlines are mostly AoE; abstracts often due ~1 week earlier

APPLICATIONS:

Nexus Labs - Student Researcher Applications 2026/2027

Nexus Labs - Pillar Officer Application Form 2026/27

UCL AI Nexus Labs 2026/27 - Academic Mentor Registration

SEE YOU NEXT TIME!