

Draft Ethical and Responsible Research Statement for AIBIO-UK.

November 2024 / April 2025

Advances in artificial intelligence (AI) are revolutionizing biology, offering unprecedented opportunities in healthcare, sustainability, agricultural productivity and fundamental research. Applying AI to biology has the potential to make us healthier, to protect the environment, to help to feed us better and to answer long-standing scientific questions. However, the AI revolution must happen ethically and responsibly. The tools produced by modern AI are powerful, often incompletely understood and incompletely described and may have different consequences now and in the future. Bringing these tools to the fabric of life creates a very special responsibility to commit to ethical principles, ensuring that technological innovations uphold human rights, support biodiversity, promote fairness and respect societal values, in both the short and long term. Our network is dedicated to ensuring that these advances are guided by principles of inclusivity, transparency, and respect for all living systems.

1. **Ethics at the Core.** The intersection of AI and biology creates an exceptional responsibility to uphold the highest ethical standards. Our network will prioritize responsible research and innovation, ensuring that societal and environmental impacts and costs are proactively considered at every stage.
2. **Open Collaboration.** We will foster an open ecosystem, welcoming contributions from academia, industry, government, NGOs, and the public. By promoting inclusivity, we aim to amplify diverse perspectives and strengthen the AI-biology community.
3. **Interdisciplinary Excellence.** Tackling complex biological questions using AI requires perspectives from diverse disciplines, including life sciences, computer science, social science, and beyond. Our network will actively support collaboration across fields to achieve original and pioneering solutions.
4. **Honesty, Transparency, Openness and Diversity.** To advance knowledge and ensure trust, we commit to principles of open science, including open access to publications, data, and tools, as well as transparent decision-making and honesty in communication. Our work will embrace societal as well as technical diversity.
5. **Responsible Innovation for Public Benefit.** With a focus on both societal well-being and fundamental discovery, we will anticipate risks and maximize the positive impact of AI in biology. By engaging with stakeholders and including them in decision making, we aim to ensure our work benefits health, ecosystems, agriculture and society.
6. **Promoting Discovery.** Our network will encourage risky and adventurous approaches to develop new perspectives. We will ensure that all research is ethical and responsible while being aware that hasty or unconsidered restrictions on research can impede progress, denying us all the benefit of scientific advances.
7. **Discovering Our Own Responsibilities.** The interplay of AI and biology is revolutionary. It demands its own ethical and responsible research framework. We will actively explore principles tailored to our field, ensuring we meet the challenge presented by the profound implications of our work.