

## Vertex's Commitment to the Ethical Conduct of Scientific Research

At Vertex, we discover, develop and deliver innovative therapies for serious human diseases. In order to discover these therapies, we conduct scientific research. To fulfill our commitment to patients, our employees, and all our stakeholders, we must conduct our scientific research in accordance with the highest ethical principles.

Three ethical principles guide all scientific research at Vertex. Those principles are – Respect, Excellence, and Integrity.

**Respect** refers to holding the source and subject of any material or information in high regard, including human materials, genetic information, and the use of animals and/or animal materials. More specifically, respect means we conduct our science with the highest regard for donors and acquire and manage these materials and information responsibly.

**Excellence** refers to maintaining the highest professional standards. These standards include adhering to all applicable laws and regulations, codes of professional responsibility, and accepted research practices. Experimental design, execution and analysis will follow current best practices. Excellence also refers to the unbiased application of the scientific method, including rigorous experimental design guided by pre-defined hypotheses, well-defined protocols and data analyses by qualified experts.

**Integrity** refers to honesty, accuracy, objectivity, traceability, and lack of corruption of methods and data. The ability to independently reproduce results and/or reconstruct a study are critical to ensuring the integrity of data.

These three key principles apply to everyone conducting research.

Given that Vertex continues to be at the forefront of research to bring new technologies and therapeutic modalities to patients, including stem-cell derived therapies, and CRISPR/cas9 gene-editing, here's how Vertex's ethical framework is applied to research involving materials from human tissues, genetic research, and animal research, as well as our guidelines for maintaining the scientific integrity of data.

### *Ethical Use of Human Material in Scientific Research*

- Human materials and any information associated with the donor will be acquired with appropriate consent, managed and utilized efficiently and responsibly, and (in the case of materials) disposed of safely and managed in accordance with all applicable laws and regulations.

### *Ethical Conduct of Genetic Research*

- Genetic research will be conducted only for the purpose of the discovery and development of therapeutics for life-threatening diseases.
- Vertex will protect that confidentiality of records and human genetic information that could potentially identify individual subjects.
- Genetic research involving gene editing or gene transfer to animals or human cells will follow clear guidelines and carefully reviewed protocols and be documented according to both Vertex policies and applicable rules and regulations for reporting.

*Ethical Conduct of Research Involving Animals and/or Animal Materials*

- The use of animals will be hypothesis driven, follow the 3Rs (reduce, refine, reuse) of animal use, and be designed such that clear interpretation of results is possible.
- Animals will be housed and handled in accordance with the applicable animal protocol standards by appropriately trained and/or accredited staff.
- Experimental procedures on animals will be subject to appropriate internal and external review, oversight and approval as expected via Institutional Animal Care and Use Committees (US) and/or [Animal Welfare Ethical Review Bodies \(EU\)](#).

*Data Integrity*

- All scientific data will be recorded contemporaneously, protected and maintained in the appropriate context over time, and analyzed in an unbiased and objective fashion.
- Documentation of work, including, but not limited to, detailed experimental protocols and standard operating procedures (SOPs) will enable the independent replication of experiments as necessary.
- Effective research data management will include ongoing retention and access to unaltered experimental data, with clear traceability from raw data to final analysis. Altering of data and/or tampering with results is unacceptable. Experimental data and records will be subject to appropriate levels of review and verification by people and/or automated systems.

Our scientists take this commitment very seriously. We adhere to the highest ethical, scientific, and professional standards in the conduct of scientific research, and we understand and follow applicable laws, regulations, codes of professional responsibility and policies related to the conduct of scientific research.

*Vertex has numerous policies that relate to integrity and ethics, including ethics around clinical research. The commitments outlined in this document specifically pertain to scientific research, which is defined at Vertex as a systematic experiment, study, evaluation, demonstration, or survey designed to develop or contribute to general knowledge (basic research) or specific knowledge (applied research) relating broadly to public health by establishing, discovering, developing, elucidating, or confirming information about, or the underlying mechanism relating to, biological causes, function or effects, diseases, treatments, or related matters to be studied. In this statement, Scientific Research does not include clinical research.*