

# Animal research



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GE conducts research involving animals, primarily rodents, in the discovery and development of diagnostic and biomedical products used in the detection, prevention or treatment of human disease. GE is committed to using the fewest number of animals that will provide scientifically sound data to help ensure the safety and efficacy of its products. GE is also committed to providing exemplary care of animals used in research in accordance with industry best practices and international standards for the care and welfare of laboratory animals. GE adheres to the “Three Rs” principle, through which the use of animals is reduced, refined and replaced. This principle forms part of the strict regime regarding the use of animals in medical research.

GE recognizes that the carefully considered use of animals in medical research is necessary to advance scientific understanding of biological systems and to develop new medical technologies when alternative scientific methods are not available. Recent developments in the fields of genetics, molecular biology, and advanced computing are providing unprecedented opportunities for biomedical advancements while simultaneously reducing the future need for the use of animals in research.

## Healthcare

GE’s goal is to enable healthcare providers to better diagnose, treat, and manage their patients. A key technology in this effort is the visualization of biological processes at all levels within the human body—from the sub-cellular molecules and biochemicals that make up our genetic structure to cells, tissues, and whole organ systems. To advance this technology, GE performs healthcare related research that requires the use of a limited number of animals to determine the safety and efficacy of new products and in compliance with the regulatory requirements of health authorities around the world. GE develops pharmaceutical diagnostic products used to understand and enable the treatment of major diseases in conjunction with X-ray, computed tomography (CT), magnetic resonance imaging (MRI), ultrasound, and functional imaging systems. Contrast and radiopharmaceutical imaging agents are, in general, injected into the bloodstream to enhance images taken of an anatomical structure or function of internal organs and other tissues of the body.



# Animal research (cont'd)

## GE's limited use of animals involves the following:

- Research toward development of novel diagnostics, prophylactics, and therapies.

## The use of animals in our medical research

- GE uses animals in research and product development only when scientifically necessary and/or required by regulatory authorities. The safety and efficacy of our products for use in humans is of paramount importance.
  - Our researchers subscribe to the Three Rs, which advocate for study designs in medical research that will reduce, refine, and replace the use of animals.
  - Non-animal methods are important tools that are used to refine and support studies that require the use of animals. Where possible, we use and develop alternatives to animal studies.
  - Health authorities across the world set stringent regulatory guidelines for the evaluation of new pharmaceutical compounds. These require that all prescription medicines intended for use in humans must be shown to be safe, effective, and of the highest quality before being made available to treat patients.
  - At present, it is only possible to determine the safety of products and meet the regulatory requirements of global health authorities through animal studies.
- Safety testing of products to meet regulatory requirements.
  - Use of animal-derived materials in GE's biological products supply chain.
  - Marketing of third-party biological products with animal origins.
- All animal studies must comply with local, federal/national, and international regulations, including appropriate licensing requirements. This includes ethical considerations.
  - All animal studies are scrutinized and approved, prior to initiation, by a designated committee whose sole purpose is to ensure that studies are both necessary, scientifically justified, ethical, and designed to minimize the number of animals used. Furthermore, all studies are designed to avoid or minimize pain, discomfort, and levels of stress for the animals. Finally, once underway, studies are periodically monitored by ethical oversight boards to ensure compliance with all relevant policies and procedures.
  - As part of its business, GE has developed a number of products and technologies that can help reduce the number of animals used in research, including gene chip microarrays developed for toxicology studies and the IN Cell Analyzer for studying the impact of new drugs on living cells in real time.

