



# Animal Testing

GE works with a limited number of animals, primarily rodents, in the discovery and development of novel diagnostic and healthcare products used in the identification and detection of 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 in accordance with industry best practices 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 use of animals in medical research to advance scientific understanding of biological systems and to develop new medical technologies may be unsettling to some. However, others believe that the challenges and burdens resulting from diseases such as cancer, Alzheimer’s, Parkinson’s, heart failure and stroke support the carefully considered use of animals for research when other appropriate scientific methods are not available. Recent developments in the fields of genetics, molecular biology and advanced computing are providing unprecedented opportunities for advancements in the area of medical diagnostics while simultaneously reducing the need for the use of animals in research. While we expect that today’s research will result in future medical diagnostic solutions that will benefit both healthcare delivery and patient outcomes, these future discoveries will be dependent, in part, on continued research involving the limited use of animals.

## Healthcare


GE Healthcare’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 Healthcare performs medical research that requires the use of a limited number of animals to determine the safety of products and to satisfy the regulatory requirements of health authorities around the world. GE Healthcare’s Life Sciences unit develops 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 the structure or function of internal body organs and tissues. GE Healthcare Life Sciences also develops and provides technologies for disease research and drug discovery, development and manufacture. These technology platforms allow researchers to better understand

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the functions of genes and proteins that may be responsible for disease; to screen possible drug candidates and develop them for clinical trials; and to manufacture biopharmaceuticals, such as insulin.

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

- Developing products and technologies that help reduce the need for research involving animals
- Research toward development of novel diagnostics
- Safety testing of products to meet regulatory requirements
- Use of animal-derived materials in GE Healthcare Life Sciences' biological products supply chain
- Marketing of third-party biological products with animal origins

## The Use of Animals in Our Medical Research

- GE uses animals in research and product development only when absolutely necessary. The safety and efficacy of our products for use in humans is of paramount importance.
- Non-animal methods are important tools that are used to refine and support studies that require the use of animals. The use of animals still

remains essential in bridging the gap between the discovery of safe and effective healthcare products and the conquering of disease. 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 not possible to determine the safety of products or meet the regulatory requirements of global health authorities without any animal studies.
- All animal studies must comply with local regulations, including appropriate licensing requirements. Studies must also be scientifically and ethically justified prior to initiation.
- GE is committed to using alternative non-animal studies wherever possible. Animals are used only when no suitable alternative is available. 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.

- All animal studies are scrutinized and approved prior to initiation to ensure that they are both necessary 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.

## Animals Used, by Species

GE subscribes to the Three Rs principle, which advocates for study designs in medical research that will reduce, refine and replace the use of animals. In the area of research involving animals, GE is considered low-volume in its use of animals.

Below is a summary by species of animals used by GE in the years 2009–2017.

Species	2009	2010	2011	2012	2013	2014	2015	2016	2017
Mice and Rats	5,394	4,712	4,179	2,020	1,952	1,339	833	582	648
Rabbits	139	153	60	4	48	0	10	0	0
Other	127	24	47	8	19	32	0	40	10
<b>Total</b>	<b>5,660</b>	<b>4,889</b>	<b>4,286</b>	<b>2,032</b>	<b>2,019</b>	<b>1,371</b>	<b>843</b>	<b>622</b>	<b>658</b>

