

## OUR STANDARDS FOR ANIMAL TESTING

PMI takes to heart public concerns about animal research.

This is why we restrict animal studies to situations where no alternatives are available. We constantly review our requirements for animal studies and hope that in time we will be able to replace much or all animal testing with non-animal alternatives. Most of our activities involving the use of laboratory animals focus on the development and assessment of new products PMI calls reduced-risk products (RRPs),<sup>1</sup> which have the potential to reduce individual risk and population harm in comparison to smoking cigarettes.

All activities related to animal testing are performed in accordance with applicable laws and regulations, as well as internationally established best practices in laboratory-animal care, to ensure that the animals are treated humanely and responsibly. Our work here falls into the following two categories.

### DISEASE RESEARCH

We conduct research to better understand the mechanism by which tobacco-smoke-related diseases develop. This understanding is important for assessing the aerosol of PMI's RRP's.

### PRODUCT ASSESSMENT

An improved understanding of disease mechanisms may also help us assess whether the new products we are developing are less harmful than continued cigarette smoking. We assess their potential to reduce disease risk when a consumer switches from a cigarette to an RRP. In rare cases, we may also conduct animal testing of cigarette smoke if we make significant product modifications. We would do this only when absolutely necessary, as when new regulations require significant design changes to our cigarette products.

We continue to seek and actively develop alternatives to animal testing. If we could do research without any animal studies, we would. At present, we cannot.

We always follow the widely recognized principles known as the "3Rs" of animal research: Replace, Reduce, and Refine.

**REPLACE** – Whenever possible, we use state-of-the-art approaches and methods to replace animal studies through a combination of in-vitro biological systems and advanced computer-modeling technologies

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<sup>1</sup> *Reduced-risk products (RRPs) is the term we use to refer to products that present, are likely to present, or have the potential to present less risk of harm to smokers who switch to these products versus continued smoking. We have a range of RRP's in various stages of development, scientific assessment and commercialization. Because our RRP's do not burn tobacco, they produce far lower quantities of harmful and potentially harmful compounds than found in cigarette smoke.*

**REDUCE** – We use the minimum number of animals needed to obtain valid results.

- Investigators carefully analyze which animals are most appropriate for each study and calculate the minimum number required to obtain the necessary data.
- Philip Morris International’s Animal Welfare Committee reviews all proposed animal studies to evaluate whether the study objectives can be achieved through other means.

**REFINE** – We use least-invasive procedures to minimize pain and distress.

- Our laboratory technicians and veterinary specialists are trained in the latest techniques to manage and care for the animals in the best possible manner.