Leading the way

In the late 1970s, activist Henry Spira organized a campaign against the cosmetics industry’s use of animal tests to ensure the safety of new products. Spira’s genius as an activist, as well as his willingness to consider practical solutions to the problem, led the Cosmetic, Toiletry, and Fragrance Association (CTFA) to set aside $1 million in 1981 to establish The Johns Hopkins Center for Alternatives to Animal Testing (CAAT).

CTFA could have set up a center anywhere. The organization chose Johns Hopkins to house the new center, based on the university’s track record of scientific excellence and leadership in protecting public health. Although CAAT was established by the cosmetics industry, the center’s mission quickly grew to encompass far more than a single industry or issue. Today, CAAT is a world leader in the development and use of alternative methods in biomedical research, product safety testing, and education.

“Our mission is clear

CAAT works to protect and enhance the health of both people and animals. Our mission is to:

• Promote and support research in the development of in vitro and other alternative techniques.
• Serve as a forum to foster discussion among diverse groups leading to creative approaches to facilitate acceptance and implementation of alternatives.
• Provide reliable information on the science, philosophy, and public policy of alternatives to academia, government, industry and the general public.
• Educate and train in the application of alternatives.

CAAT follows a philosophy known as the 3Rs of alternatives—replacement, reduction, and refinement. **Replacement:** Don’t use animals if a non-animal method exists that can answer the scientific question at hand. **Reduction:** If you must use animals, keep the number to the minimum necessary to answer the question. **Refinement:** If you must use animals, keep any pain or distress they experience to a minimum.

This philosophy first was expressed in a 1959 book by two British scientists, William Russell and Rex Burch, whose extensive research showed that humane science is better science.

Like Russell and Burch, CAAT promotes humane science because it is the best science. Like Henry Spira, CAAT has devoted its efforts to giving society a push—not through activism, but by supporting the development, acceptance, and use of scientifically valid alternatives.

“... the humanest possible treatment of experimental animals, far from being an obstacle, is actually a prerequisite for successful animal experiments.”

—Russell and Burch

British scientists who first expressed the ‘3Rs’ of alternatives
The research grants program provides critical seed money for researchers hoping to develop alternative methods. At first, CAAT grants focused on finding in vitro (“in glass”) methods, using cells or tissues in culture to replace or reduce animal use. The program has expanded to cover a wide range of research, including computer modeling, statistical analysis, and refinement techniques aimed at preventing or alleviating pain and distress in animal experiments. In addition to grants, CAAT offers smaller “Animal Welfare Enhancement Awards” to the lab and animal technicians who work hands-on with the animals.

Developing new, more humane methods won’t do any good if no one knows about them. So CAAT works hard to make reliable information about the 3Rs available to a broad range of audiences around the world. We produce a wide variety of print materials, including journal articles, books, scientific reports, newsletters, brochures, posters, and letters to the editor. We also manage two web sites, our own CAAT site and Altweb, an international clearinghouse of alternatives information and resources.

Even if alternative methods are available and known, they still have to be accepted and put into practice. From the outset, one of CAAT’s strengths has been its ability to foster collaboration and consensus—to turn walls into bridges. Since it’s founding, CAAT has held more than twenty major workshops and symposia, providing a forum where diverse groups can join together in rational dialogue to develop strategies for action. These meetings have resulted in key publications and significant policy changes.

Education is the key that will make alternatives work over the long haul. CAAT’s goal is to help teach students and researchers to think in terms of alternatives from the outset, incorporating the 3Rs when they plan experiments. The trick is to get these ideas woven into the very fabric of the science they conduct. CAAT’s education programs include a free online course and a certificate program in Humane Sciences and Toxicology Policy.

We have attempted to turn walls into bridges by promoting the shared goals of better science, efficiency, economy and humanity.” —Henry Spira

Cell photos: Tomas R. Guillarte, Johns Hopkins Bloomberg School of Public Health
Zebra fish photo: Courtesy of Stephen D. Leach, Johns Hopkins University
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