

Technology Aims to Replace Animal Testing

Posted: January 14, 2010

AP Associated Press

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WASHINGTON—Technology allowing cosmetic makers to test for allergic reactions to their products without controversial animal trials is in the works and could be in use by next year.

The technology developed by Hurel Corp., with funding from cosmetics maker L'Oreal, is designed to replace tests on mice and guinea pigs used to predict skin reactions from drugs and cosmetics. The device uses laboratory-grown human skin cells to simulate the body's allergic response to foreign chemicals. Preliminary experiments show promise, but rigorous tests are still needed to determine the technology's accuracy.

The standard method for testing allergic reactions involves applying chemicals to the ears of mice, which are later killed and dissected for study.

North Brunswick, N.J.-based Hurel said Thursday it hopes to eliminate the need for such tests, in an announcement with cosmetics giant L'Oreal, which provided funding for the test.

The product from Hurel consists of a glass chip with human skin cells and chemicals that simulate the body's immune system. When a foreign substance is dropped onto the chip, the cells and chemicals interact to mimic the human body's natural allergic response.

While the product is still in development, Hurel officials say a working prototype should be available by the second half of next year. In addition to cosmetics, the technology could be used to test household cleaners and pesticides.

Hurel Chief Executive Robert Freedman said it is too early to estimate the price or sales figures for the chip, but he pegs the market for a non-animal allergy test at \$2 billion a year.

Like other companies in the cosmetics industry, L'Oreal is racing to develop alternatives for testing wrinkle creams and lipstick to comply with European Union laws. Regulators there have ordered companies to phase out animal skin testing by 2013.

L'Oreal has decreased its use of animal testing over the years, but still relies on the technique to test certain new chemicals.

"I give L'Oreal credit for being willing to explore these types of opportunities," said Dr. Charles Sandusky, of the Physicians Committee for Responsible Medicine. "This is the first thing I've ever seen where the immune system is being mimicked without using an animal component."

A spokeswoman for L'Oreal said the company has invested heavily in non-animal testing over 25 years, but declined to specify how much went into developing the Hurel chip.

Hurel will be free to license the technology to other companies once it has been proven effective, she said.

Sandusky, a former toxicologist at the Environmental Protection Agency, estimates Hurel's technology, if successfully applied, could eliminate the need for tens of thousands of test animals each year.

For that reason, the animal rights group People for the Ethical Treatment of Animals plans to grant the company an innovation award Thursday for "animal-friendly achievement in commerce." PETA's science policy adviser Dr. Kate Willett said the group has been following Hurel's research efforts.

Hurel was founded in 2005 and has one other product under development: a liver toxicity test. Given that regulators generally won't approve an experimental drug if there are signs it harms the liver, a liver toxicity test could be a boon to drugmakers who test their medicines in animals before submitting them to regulators.

Animal testing can be slow, and many researchers question how well an animal's response to a chemical predicts human reactions.

By eliminating the time, money and potential inaccuracies associated with animal testing, Chief Executive Robert Freedman estimates Hurel's test could shave \$100 million off the roughly \$1 billion cost of developing a new drug.

Source: <http://www.usnews.com/science/articles/2010/01/14/technology-aims-to-replace-animal-testing.html>