Thus, the proposed hotel will be a good choice for both foreign tourists and citizens of the Republic of Belarus. The COVID-19 pandemic causes an urgent need to refuse to travel abroad and implies the choice of domestic tourism. The proposed eco-hotel will use rule 4R: Reduce – Reuse – Recycle – Replace. Thanks to this, 30 % of hotel waste will be disposed of and recycled. An eco-hotel equipped with the above characteristics will be able to influence the preservation of the environment and save money.

### UDC 59.084

# **COSMETICS TESTING; ALTERNATIVE METHODS**

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Have you ever wondered how cosmetic products are tested on animals? If you think that people just apply eyeliner or mascara on animal's lashes or paint little cute rabbit's lips, then you are wrong. In fact, cosmetic testing on animals is a terrifying act of violence due to which animals suffer and frequently even die. That's why our research was aimed at finding safe, ecological friendly ways of testing cosmetic products.

WHAT COSMETICS TESTS ARE PERFORMED ON ANIMALS?

Although they are not required by law, several invasive tests are performed on rabbits, mice, guinea pigs and rats. These can include:

- Skin and eye irritation tests where chemicals are rubbed onto the shaved skin or dripped into the eyes of restrained rabbits, without any pain relief.

- Tests that deliver doses of chemical substances to mice through repeated force-feeding. These tests last weeks or months so researchers can look for signs of general illness or specific health hazards such as cancer or birth defects.

- Widely condemned "lethal dose" tests, in which rats are forced to swallow large amounts of chemicals to determine the dose that causes death.

At the end of the tests, the animals are killed, normally by asphyxiation, neckbreaking or decapitation. Pain relief is not provided.

ARE THERE OTHER ARGUMENTS AGAINST TESTING ON ANIMALS?

Yes. Animal tests have scientific limitations because animals often respond differently than humans when exposed to the same chemicals, leading to inaccurate estimates of real-world hazards to people. Results from animal tests can also be quite variable, even between two species (such as mice and rats) and difficult to interpret. Unreliable and ineffective animal tests mean consumer safety cannot be guaranteed. In contrast, non-animal alternatives, such as human cell-based tests and sophisticated computer models, can deliver results that more accurately predict human responses. Non-animal alternatives can also be faster and much more cost-effective than tests that use animals.

THE ALTERNATIVES TO ANIMAL TESTING

1) In vitro

IN VITRO is a research method carried out in a test tube without the use of a living organism. Experiments are mainly carried out on protein cereals.

In the countries of the European Union they began to replace the animal method with IN VITRO since 2003, to stop testing cosmetic products on animals, and have banned testing cosmetics and perfumes on animal ingredients since 2009.

2) Artificial skin growing technology

A skin puncture is taken from a healthy person, then epithelial tissue cells are grown under artificial conditions, on which experiments are carried out. Any type of skin can be recreated in scientific laboratories: wrinkled, dry and even acne.

3) Computer modeling

Computer codes allow you accurately reproduce the conditions and reactions inherent in the human immune system, copy the metabolism of the human body, and much more.

4) Volunteer testing

Special clinical trials on a group of volunteers who have various pathologies: seborrhea, atopic dermatitis, alopecia (baldness), etc. They use certain substances for a specified period under the continuous supervision of doctors. Of course all volunteers are insured.

ORGANIZATIONS FIGHTING TO END ANIMAL TESTING AND USING ANIMALS IN RESEARCH

1) People for the Ethical Treatment of Animals (PETA)

People for the Ethical Treatment of Animals is an animal rights organization. PETA carries out its work by investigating cases of cruelty to animals, scientific research, saving animals, supporting legislative action.

2) Alternatives Research and Development Foundation (ARDF)

Since in 1993 the Alternatives Research & Development Foundation has been developing alternatives to animal-based methods in science. Through grant programs, achievement awards, and sponsorship of scientific conferences, ARDF advances high quality scientific research that aims to replace and reduce the use of animals.

3) Animal Justice Project

Animal Justice Project is an animal rights group based in the UK with an international reach. It was founded in 2015 with a mission to end the use and exploitation of animals for food and in laboratories. Their work highlights the cruel and needless torturing of animals in laboratories and shines a light on the 50 percent of animal experiments which take place at British universities. The project includes such campaigns as Campus Without Cruelty, Missing, Lifeline, Cures Not Cruelty, Secret War, Deadly Doses, Vivisection, and Swedish Monkey Imports. The main focus of the project is on undercover investigations, consumer outreach, lobbying, and pressure campaigns.

# WHAT CAN YOU DO TO HELP?

The change starts with you. In order to help you can stop using cosmetic products that are tested on animals. There are several ways to define whether cosmetics is cruelty free or not. The first is that the product packaging may have an appropriate certified rabbit logo. There are three such logos: Leaping Bunny, PETA (Beauty Without Bunnies) and Choose Cruelty Free (image 1). However, this method has its drawbacks: for example, in order to print a logo on the packaging, the brand must pay – local manufacturers may simply not have the money for this. That is, they could receive certification, but you will have to look for information about this either among the inscriptions on the label in small print, or on the company's website.



Image 1. Certified rabbit logos

The second way is to check the information on the Internet. There are several resources that collect information about testing cosmetics of famous brands: Leaping Bunny, Cruelty Free International, Choose Cruelty Free, PETA'S Beauty Without Bunnies.

CRUELTY-FREE COSMETIC BRANDS YOU CAN FIND IN OUR STORES

These are some of the cosmetic brands that don't test their products on animals and which are available in every store:

- Relouis;
- Essence;
- Lamel;
- Eveline Cosmetics;
- Levrana;
- NYX Professional Makeup;
- Dove;
- Chistaya liniya;
- Urban Decay;
- Inglot.

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# CONSTRUIRE UN VÉHICULE ÉLECTRIQUE EST VRAIMENT UNE OPTION PLUS ÉCOLOGIQUE?

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Actuellement l'utilisation des véhicules électriques continue d'évoluer a travers plusieurs pays du monde. De nombreux pays encouragent le passage à