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НАУЧНАЯ СТАТЬЯ

По теме

ТЕСТИРОВАНИЕ КОСМЕТИКИ НА ЖИВОТНЫХ

Аннотация. Тема тестирования на животных является одной из самых противоречивых в современном мире. В статье рассмотрены позитивные и негативные стороны тестирования косметики на животных. Так, минусом является, во-первых, то, что животные испытывают физические или психологические страдания, во-вторых, строение животных все-таки отличается от человеческого организма, поэтому показатели, полученные в результате испытаний, будут неточными. С другой стороны, наука и техника сегодня недостаточно развиты и требуют многочисленных усовершенствований, более того, удобно изучать все процессы у животных из-за их более коротких жизненных циклов. При этом важно понимать, что даже все положительные моменты сводятся к тому, что в любом случае использование животных будет ограничено, поэтому наиболее выгодным развитием будет частичный отказ от использования животных. Проанализировано нормативное регулирование, а также практические аспекты проблемы. Более того, не обделены вниманием и альтернативные методы тестирования косметики. Сейчас также активно создаются организации, защищающие животных, развивается законодательство стран, многие компании отказываются от использования в экспериментах животных. Поэтому можно сказать, что мир пытается создать благоприятные

условия для животных и урегулировать процесс тестирования. Сделан вывод о том, что эксперименты над животными не исчезнут еще некоторое время, действительно, существует тенденция к защите животных, однако технологии еще не развиты достаточно хорошо, а тесты по-прежнему приносят пользу обществу, а также являются давно сложившейся и широко применяемой практикой. Поэтому на данном этапе исторического и технологического развития мира невозможно полностью запретить тестирование косметики на животных. Крайне важно найти баланс между пользой обществу и самочувствием живых существ, чтобы страдания были минимизированы или же исключены вовсе.

Ключевые слова: международное право, эксперименты над животными, косметика, альтернативные методы.

THE TESTING OF COSMETICS ON ANIMALS

Abstract. The topic of animal testing is one of the most controversial in the modern world. The article discusses the positive and negative aspects of testing cosmetics on animals. So, the disadvantages are: firstly, that animals experience physical or psychological suffering, secondly, the structure of animals is different from the human body, so the result of the tests will be inaccurate. On the other hand, science and technology today are not sufficiently developed, moreover, it is convenient to study all processes in animals because of their shorter life cycles. It is important to understand that even the positive aspects come down to the limitation of the use of animals, so the best for now is a partial rejection of the use of animals. The article analyzes the regulatory framework, as well as the practical aspects of the problem. Moreover, alternative methods of testing cosmetics are not deprived of attention. Now organizations that protect animals are also actively being created, many companies refuse to use animals in experiments. Therefore, we can say that the world is trying to create favorable conditions for animals and regulate the testing process. It is concluded that experiments on animals will not disappear for some time, indeed, there is a

tendency to protect animals, but the tests still benefit society, as well as being a long-established and widely used practice. It is extremely important to find a balance between the benefits to society and the well-being of living beings, so that suffering is minimized or eliminated altogether.

Key words: international law, animal testing, cosmetics, alternative methods.

Introduction

The topic of animal testing is very relevant in the modern world. There are many variations of what and how can be tested. To begin with, animal testing is a procedure performed on live animals to investigate basic biology and diseases, evaluate the effectiveness of new medicinal or cosmetic products, and test human health or environmental safety of consumer and industrial products (cosmetics, household cleaning products, food additives, pharmaceuticals, and industrial/agrochemicals).¹

Speaking about the types of animals, which are used, should be mentioned rats, rabbits, mice, guinea pigs, mini-pigs, dogs, cats, hamsters, fish, farm animals, birds, dogs, and monkeys. Scientists have found that more than 100 million animals worldwide are used in laboratory experiments every year, but you need to understand that not all data is collected and published, so the exact number is unknown. Humane Society International believes that full transparency of animal use is vital and that all animals raised, used or killed for the research industry should be included in official data.²

However, to be brief, it is necessary to touch on one of the topics, narrowing down the animal testing theme. The most interesting and controversial topic nowadays is testing cosmetics on animals.

Pros and cons of testing cosmetics on animals

¹ Humane Society International. (2012) About Animal Testing. Available from: <https://www.hsi.org/news-media/about/>. [Accessed: 12.10.2020].

² Humane Society International. (2012) About Animal Testing. Available from: <https://www.hsi.org/news-media/about/>. [Accessed: 12.10.2020].

Women all over the world use cosmetics, but when applying makeup, they do not always think about who they owe their appearance and health to. Despite the fact that the general rules on property apply to animals, people understand that they are living beings.³ However, experiments that are put on animals for the sake of female (and not only) beauty often torment the animal. Many people have pets. It is difficult to talk about the number of pets in the world, we can roughly imagine this, so, according to a research conducted in 2019, 44% of Russians have pets.⁴ People love animals, take care of them, and no one would give their best friend to the lab to test a new lip gloss on him. Therefore, they often take homeless animals that have no one to protect them, they cannot say anything, but what are they worse than those who have found a loving family of people? Animal cruelty (a criminal act in Russia) is quite common, and there are few criminal cases, as either concerned witnesses file a statement, or law enforcement agencies initiate a case, which often turn a blind eye to what is happening. The situation at some point is similar to animal testing, where simply no one protects animals, and people turn a blind eye, looking for benefits for themselves.

At the same time, emotions are needed to be turned off and the advantages and disadvantages of testing cosmetics on animals should be considered.

To evaluate animal testing, it is necessary to determine what the experiment involves: for example, the degree of irritation is assessed by rubbing cosmetics into the eyes and skin of animals; toxicity is measured and the consequences are detected when cosmetics are ingested by force-feeding animals with chemicals to understand whether they cause cancer or other diseases; everything is also checked for a lethal dose, that is, many animals die.⁵

I suppose, that negative aspects are more obvious, so it is better to start with them. Firstly, animal testing causes physical or psychological suffering to animals, they

³ The Civil Code of the Russian Federation (Part one) of 30.11.1994 No. 51-FZ // Rossiyskaya Gazeta. № 238-239. 08.12.1994. Available from: http://www.consultant.ru/document/cons_doc_LAW_5142/. [Accessed: 12.10.2020].

⁴ Ria News. (2019) The research revealed which pets Russians get most often. Available from: <https://ria.ru/20191121/1561425368.html>. [Accessed: 13.10.2020].

⁵ Gerner, D. (2019) Lab victims: why the scientific world can't abandon animal testing. *Hightech*. Available from: <https://hightech.fm/2019/02/08/animals-lab>. [Accessed: 13.10.2020].

do not go for this voluntarily, they cannot express their opinion. Thus, according to the Humane Society International, animals are subjected to forced feeding or vice versa deprivation of food and water, burns and other wounds to study the healing process, causing pain to study its consequences or other means.⁶ For example, mascara is usually tested on the eyes of rabbits and the eyelids of animals are forcefully held open for better absorption.⁷ Secondly, the structure of animals is still different from the human body, so the indicators obtained as a result of tests will be inaccurate, therefore, it is better to choose more accurate methods. What I mean, is drugs or cosmetics, that were tested on animal tests are not necessarily safe, in many cases it is hard to correctly predict human reactions. For instance, a cosmetic product was tested on an animal, but in humans it caused irritation, allergies, or other effects that could not be detected in the animal due to the difference in organisms. In addition, animal tests are time-consuming and resource-intensive, limit the amount of substances that can be tested.⁸ Lastly, today there are alternative testing methods, so it is not necessary to use animals.

On the other hand, scientists say that animal testing is a long - established and widely used practice, that is, not all results are accurate, but scientists already know what to do, while science and technology are not sufficiently developed today and require numerous improvements, so experiments on animals can now bring more benefits to people.⁹ Animal testing can prevent many harmful effects from cosmetics, protecting people's health, despite the difference in the structure of organisms, many side effects will be eliminated. In addition, it is more convenient to study all the processes in animals because of their shorter life cycles, that is, you can track the reaction to cosmetics over a lifetime or over several generations, which saves a lot of time.¹⁰ Actually, testing many brand-new cosmetics on humans at once would be even

⁶ Humane Society International. (2012) About Animal Testing. Available from: <https://www.hsi.org/news-media/about/>. [Accessed: 13.10.2020].

⁷ Galanes, K. (2010) Brief Summary of Animal Testing Laws. *Michigan State University College of Law*. Available from: <https://www.animallaw.org/>. [Accessed: 13.10.2020].

⁸ Humane Society International. (2012) About Animal Testing. Available from: <https://www.hsi.org/news-media/about/>. [Accessed: 13.10.2020].

⁹ GBC College. (2019) Animal testing should not be banned. Available from: <https://medium.com/gbc-college>. [Accessed: 14.10.2020].

¹⁰ California Biomedical Research Association. (2013) Fact Sheet: Why Are Animals Necessary in Biomedical Research? Available from: <https://calbioresearch.org/pdf/fs-whynecessary.pdf>. [Accessed: 14.10.2020].

more inhumane. However, the counterargument here is the availability of alternatives (grown cells). However, for now, there is no substitute for testing on a single body system. Grown cells do not allow to study the interrelated processes occurring in the nervous system, circulatory, and immune systems yet, which can greatly affect the result of the study.¹¹

At the same time, it is important to understand that even all the positive aspects come down to the fact that in any case, the use of animals will be restricted, so the most profitable development will be a partial refusal to use animals. I believe that at this stage of historical development, it is necessary not to prohibit tests, but to limit and improve conditions for animals, to leave animal testing in extremely necessary cases when grown cells cannot give the desired result.

Regulation of animal testing

It is most rational to talk about Europe and the United States of America in the essay, since these parts of the world are the leaders in the cosmetics industry and the dominant exporters of cosmetics, at the same time, sometimes it will be appropriate to touch on other parts of the world in the course of discussing this topic. European Union participation mainly concerns the regulatory framework for international trade relations and market access for safe and innovative products.¹²

According to the part 1 of the article 18 chapter V of the Regulation (EC) № 1223/2009 of the European Parliament and of the Council of 30 November 2009 on Cosmetic Products (Current consolidated version: 01.05.2020), shall be prohibited the placing on the market of cosmetic products where the final formulation or some ingredients have been the subject of animal testing using a method other than an alternative method after such alternative method has been validated and adopted at Community level with due regard to the development of validation within the Organization for Economic Cooperation and Development.¹³ The Regulation was set

¹¹ California Biomedical Research Association. (2013) Fact Sheet: Why Are Animals Necessary in Biomedical Research? Available from: <https://calbioresearch.org/pdf/fs-whynecessary.pdf>. [Accessed: 14.10.2020].

¹² European Commission Cosmetics. (n.d.) Internal Market, Industry, Entrepreneurship and SMEs. Available from: <https://ec.europa.eu/growth/sectors/cosmetics/>. [Accessed: 13.10.2020].

¹³ Official Journal of the European Union. (2009) Regulation (EC) № 1223/2009 of the European Parliament and of the Council on Cosmetic Products (Current consolidated version: 01.05.2020). Available from: <https://eur-lex.europa.eu/legal>. [Accessed: 15.10.2020].

into force on the 11th of July 2013, so since 2013 cosmetic products sold in the EU have become safer: safety requirements are tightened, rules are updated to take into account the latest technological developments, including the possible use of nanomaterials, the existing ban on animal testing is maintained, and lists of substances that are prohibited or restricted for use in cosmetics are approved.¹⁴

A new concept of “responsible person” for each product has been developed: manufacturers cannot sell their products in the EU until they appoint a clearly identified person or company in the EU who must ensure that the product meets all relevant safety requirements in accordance with the law, as well as report serious undesirable consequences.

According to the part 2 of the article 18 chapter V of the Regulation (EC) № 1223/2009 of the European Parliament and of the Council of 30 November 2009 on Cosmetic Products (Current consolidated version: 01.05.2020), the exemption is granted only if the need for animal testing is justified by human disease and supported by a detailed research protocol.¹⁵

According to the article 12 of the Helsinki Declaration on Ethical Principles for Medical Research Involving Human Subjects, medical research involving humans must be based on a knowledge of the relevant sources of information, laboratory and animal experimentation, while the welfare of animals must be respected.¹⁶

Animal testing is also regulated by the federal Animal Welfare Act (AWA). In addition to fixing animal welfare standards, it is also established that regular inspections by veterinarians are necessary, moreover, animal testing is possible if the need has been proven.¹⁷ Moreover, proposals for the use of animals for research are approved by the Institutional Animal Care and Use Committee (IACUC) at the research institution. The programs of many major research institutes are frequently

¹⁴ EUR-Lex. Assess to European Union Law. (2015) Summaries of EU Legislation. Safer cosmetics for Europeans. Available from: <https://eur-lex.europa.eu>. [Accessed: 15.10.2020].

¹⁵ Official Journal of the European Union. (2009) Regulation (EC) № 1223/2009 of the European Parliament and of the Council on Cosmetic Products (Current consolidated version: 01.05.2020). Available from: <https://eur-lex.europa.eu/>. [Accessed: 15.10.2020].

¹⁶ World Medical Association General Assembly. (1964) Declaration of Helsinki on Ethical Principles for Medical Research Involving Human Subjects. Available from: <https://www.wma.net/wp-content>. [Accessed: 15.10.2020].

¹⁷ U.S. Government Publishing Office. (1966) Animal Welfare Act. Available from: <https://www.govinfo.gov/content>. [Accessed: 15.10.2020].

reviewed for humane practices by the Association for Assessment and Accreditation of Laboratory Animal Care International (AAALAC).¹⁸ Therefore, it can be said that the world is trying to create favorable conditions for animals and regulate the testing process. However, it should be kept in mind that these acts do not apply to all states and manufacturers, and it is quite difficult to control their implementation.

It is impossible not to mention the situation in Russia. At the moment, animal experiments have not found their legal regulation. There was a petition calling for a legislative ban on testing cosmetics on animals, created collectively by the President of the charity fund for animal welfare "The Big Hearts" and an authorized representative of the International Organization Cruelty Free International, which collected signatures of more than 200 thousand people.¹⁹ In 2017 the Committee on Ecology and Environmental Protection of the State Duma of the Russian Federation held a meeting dedicated to the above-mentioned draft Federal law, at which the bill was rejected, since the introduction of alternative methods may lead to problems in monitoring product safety and require financial investments.²⁰

It is a great opportunity that the bill was returned to the applicants to correct the technical component, so it can still be adopted with the necessary improvements. It seems to me that the position of the bill's developers is correct, but it is necessary to improve the project, taking into account not the complete rejection of animal tests, and the refusal of the State Duma is unfounded, their arguments are easily refuted by the fact that this will require no more financial investment than animal tests, and safety for consumers will be provided, as a last resort, the technologies can be refined, as well as interaction with countries that already use alternative methods may take place. Voting for the project ended on July 7, about 3 thousand Russians voted in support of it, according to the website of the Russian Public Initiative, this may not be the worst

¹⁸ Britannica.ProCon.org. (2020) Should Animals Be Used for Scientific or Commercial Testing? Available from: <https://animal-testing.procon.org/>. [Accessed: 16.10.2020].

¹⁹ Consultant.ru (n.d.) Explanatory note "To the draft Federal law "On the prohibition of quality control of perfume and cosmetic products and their ingredients on animals"". Available from: <http://www.consultant.ru/cons/cgi/online..> [Accessed: 16.10.2020].

²⁰ Russian Public Initiative. (2020) Adopt a law banning quality control of perfume and cosmetic products and their ingredients on animals. Available from: <https://www.roi.ru/54832/>. [Accessed: 16.10.2020].

indicator, there is still a lot to work on, the country is beginning to move towards abandoning experiments, though this is essential to do it gradually and wisely.

As part of the regulation of testing, it is appropriate to mention organizations that take part in the development of regulatory acts, as well as advocate for animals, because this also shows that people are united and solve an important problem together. Such organizations are being created all over the world, I will give an example of some of them.

In 1969 the international Association Against Painful Experiments on Animals was established, which, having consultative status with the United Nations Economic and Social Council, opposes all tests on animals, discloses what happens in laboratories and finances experiments without the participation of animals.²¹

Speaking about the Russian Federation, can be mentioned the VITA Animal Rights Center is an organization established in 1994 that deals, among other things, with the fight against animal testing, focusing on global projects that can lead to a dramatic improvement in the situation of animals, promoting the use of alternatives to animal testing in the production of cosmetics, as well as introducing the subject of bioethics in the educational system of the Commonwealth of Independent States.²² The following example can be given: in 2003, the state drug control service outlawed an essential drug for animal anesthesia in Russia — ketamine, VITA stood up for the protection of animals, organizing a large-scale media campaign, which made it possible to stop the repression of scientists and return anesthesia to the legal channel.²³ So, some experiments of cosmetics can be put under anesthesia. That is, despite the fact that Russia does not have legislation at the moment, the issue of animal testing is widespread and discussed.

In the United Kingdom, there is Fund for the Replacement Animals in Medical Experiments – Researching Alternatives to Animal Testing, which aim is the

²¹ An official website of the IAAPEA. (n.d.) The International Association Against Painful Experiments on Animals. Available from: <http://www.iaapea.com/>. [Accessed: 16.10.2020].

²² An official website of the IAAPE. (n.d.) The VITA Animal Rights Center. Available from: <http://www.iaapea.com/>. [Accessed: 16.10.2020].

²³ An official website of the IAAPE. (n.d.) The VITA Animal Rights Center. Available from: <http://www.iaapea.com/>. [Accessed: 16.10.2020].

replacement of animals in medical experiments, it supports the reduction of numbers involved animals to a minimum, along with the minimizing any suffering caused.²⁴ The Humane Research Trust has also been registered in the UK for more than 4 years, it is a charity that encourages new medical researches that do not involve the use of animals.²⁵

Narrowing down to specifically cosmetic products Beauty Without Cruelty can be mentioned, which was established in 1975. It is an animal rights organization that also runs an educational program aimed at informing people about animal suffering, and has initiated a number of campaigns aimed at exposing animal cruelty, especially in the field of cosmetic testing.²⁶ The organization is committed to changes in South Africa, drawing on the experience of the European Union, Brazil, Israel, and India in testing cosmetics on animals, moving towards affordable modern technologies that are more reliable, faster, and cheaper, so the petition was formulated.²⁷

Alternative methods are being developed internationally through the collaboration of the European Center for Validation of Alternative Methods (ECVAM), the European Society of Toxicologists for Alternative Methods (ESTIV), The Italian Association of In Vitro Toxicologists (CELLTOX), the American Screening Research Organization (CYPROTEX), the Association of Cosmetics Manufacturers (COLIPA, CARDAM), Academic Institutions, Animal Welfare Societies and other organizations.²⁸

Thus, the problem of testing cosmetics on animals has long been discussed, and people are developing alternative solutions to protect the life and health of animals.

²⁴ An official website of the FRAME. (n.d.) Fund for the Replacement Animals in Medical Experiments. Available from: <https://frame.org.uk/>. [Accessed: 16.10.2020].

²⁵ An official website of the Humane Research Trust. (n.d.) The Humane Research Trust. Available from: <https://www.humaneresearch.org.uk/>. [Accessed: 16.10.2020].

²⁶ An official website of the BWC. (n.d.) Beauty Without Cruelty. Available from: <http://bwcsa.co.za/about-us/>. [Accessed: 16.10.2020].

²⁷ An official website of the BWC. (n.d.) Beauty Without Cruelty. Available from: <http://bwcsa.co.za/about-us/>. [Accessed: 16.10.2020].

²⁸ Russian Public Initiative. (2020) Adopt a law banning quality control of perfume and cosmetic products and their ingredients on animals. Available from: <https://www.roi.ru/54832/>. [Accessed: 16.10.2020].

Case law

One of the most well-known case is European Federation for Cosmetic Ingredients v Secretary of State for Business, Innovation and Skills. This case is also important in the context of the application of the legislation already discussed above, namely: Regulation (EC) No 1223/2009 of the European Parliament and of the Council of 30.11.2009 on cosmetic products.

The plaintiff argued that the scope of the ban on animal testing under article 18(1)(b) of regulation no 1223/2009 was uncertain, and therefore filed a claim for judicial review of the scope of this ban to determine whether companies would be subject to criminal penalties if they placed cosmetic products containing ingredients that had been tested on animals outside the European Union on the UK market in order to meet the legal or regulatory requirements of third countries in order to market cosmetic products containing these ingredients, in these countries, since in this case it cannot be assumed that the ingredients have been tested to meet The requirements of the regulation. While the Secretary of state for business and the attorney General argued that article 18 should be interpreted as prohibiting the placement on the market also of cosmetic products containing ingredients that have been tested on animals outside the European Union.²⁹

Case law has established that when interpreting a provision of law, it is necessary to take into account not only the letter of the law, but also the context in which it arises, as well as the goals pursued by the rules. The court concluded that, firstly, it is in the context of evaluating the safety of a cosmetic product that animal testing can be considered, and secondly, the article does not make a distinction depending on where the relevant testing was performed, and making such a distinction by interpretation would be contrary to the purpose of animal protection pursued by the Regulation.³⁰

It is interesting to consider a case from another part of the planet. Brazil's Supreme court also supported the state ban on testing cosmetics on animals and

²⁹ Court of Justice of the European Union. (2016) European Federation for Cosmetic Ingredients v Secretary of State for Business, Innovation and Skills. Available from: <http://curia.europa.eu/juris/document/>. [Accessed: 16.10.2020].

³⁰ Court of Justice of the European Union. (2016) European Federation for Cosmetic Ingredients v Secretary of State for Business, Innovation and Skills. Available from: <http://curia.europa.eu/juris/document/>. [Accessed: 16.10.2020].

concluded that the state of Amazonas has every right to pass law 289/2015 prohibiting cosmetic tests on animals on its territory. The law was passed in 2015 by the state Assembly of Amazonas to stop animal testing, but was challenged by the Brazilian Association of Cosmetics, personal care and perfume industry (ABIHPEC) in the Supreme court in 2018, claiming that the state of Amazonas exceeded its authority and the issue of animal testing can only be resolved at the federal level. The judges unanimously confirmed that Amazonas has the legal right to ban cosmetics testing.³¹

ABIHPEC is also challenging the Law 7.814/2017, which prohibits animal testing on cosmetics and the sale of cosmetics that have been tested on animals in the State of Rio de Janeiro, but the decision has not yet been made by the judges.³²

Cases show that all over the world, people and states are trying to combat the use of animals, stopping any attempts to circumvent the law to promote the brand.

Alternative methods

As we have already found out, animal experiments are not always accurate: there was a study that showed that there were more than 100 human trials of treatments to reduce inflammation in critically ill patients, and all of them failed, despite being successful in animal tests.³³ In the 1950s by the West German pharmaceutical company Chemie Grünenthal GmbH there was invented a sleeping pill thalidomide, which caused thousands of babies to be born with deformities, but it was tested on animals before its release, and tests on cats, rats, hamsters did not result in birth defects.³⁴ High-profile cases occur when testing drugs, as they are of great importance, yet this also happens in the world of cosmetics. Another study found that there are serious

³¹ Humane Society International. (2020) Supreme Court maintains Amazonas ban on cosmetic testing on animals following industry challenge. Available from: <https://www.hsi.org/news-media/brazil->. [Accessed: 19.10.2020].

³² Humane Society International. (2020) Supreme Court maintains Amazonas ban on cosmetic testing on animals following industry challenge. Available from: <https://www.hsi.org/news-media/brazil->. [Accessed: 19.10.2020].

³³ Proceedings of the National Academy of Sciences of the United States of America. (2013) Junhee Seok et al. Genomic Responses in Mouse Models Poorly Mimic Human Inflammatory Diseases Available from: <https://www.pnas.org/content/110/9/3507>. [Accessed: 15.10.2020].

³⁴ The Science Museum in the UK. (2019) Thalidomide. Objects and stories. Available from: <https://www.sciencemuseum.org.uk>. [Accessed: 19.10.2020].

shortcomings in most publicly funded American and British animal tests using rodents and primates: only 59 percent of studies stated a hypothesis or goal for the study.³⁵

In many countries, the principle of "3Rs" (replacement reduction, refinement) is widespread: replacement for experiments without animals; reduction of the number of animals in experiments; improvement of research methods that minimize the pain and suffering of laboratory animals, as well as improve their conditions of detention.³⁶ In my opinion, it the most appropriate one and it can be reflected in modern realities.

Indeed, alternative testing methods, such as in vitro testing (tests performed on human cells or tissues in a Petri dish, that is, outside the body, which is even cheaper than animal tests), allow to reduce or replace animal testing, modern technologies in the field of 3D printing open up the possibility of tissue bioprinting, which makes it possible to check the toxicity of a cosmetic product, and artificial human skin is grown in test tubes, which will give more effective results.³⁷

Michael Bachelor, an employee of the biotechnology company MatTek, talked about creating a model from human skin cells, as well as a model that simulates a skin disease or create a pigmented model of the skin, which cannot be done even during experiments on animals.³⁸

Thomas Hartung, professor at Johns Hopkins University, acts in support of alternatives to animal testing, because people are much larger individuals than the animals that are being experimented on, our organisms are different, and it is quite difficult to find even a slightly similar organism.³⁹

³⁵ An official website of the PLOS ONE. (2009) Carol Kilkenny et al. Survey of the Quality of Experimental Design, Statistical Analysis and Reporting of Research Using Animals Available from: <https://journals.plos.org/>. [Accessed: 16.10.2020].

³⁶ An official website of the VITA Animal Rights Center. (n.d.) The In Vitro Testing Industrial Platform. Available from: <http://www.vita.org.ru/>. [Accessed: 16.10.2020].

³⁷ Britannica.ProCon.org. (2020) Should Animals Be Used for Scientific or Commercial Testing? Available from: <https://animal-testing.procon.org/>. [Accessed: 16.10.2020].

³⁸ Britannica.ProCon.org. (2020) Should Animals Be Used for Scientific or Commercial Testing? Available from: <https://animal-testing.procon.org/>. [Accessed: 16.10.2020].

³⁹ Perkel, J. (2012) Animal-Free Toxicology: Sometimes, in Vitro is Better. *Life Science Technologies*. An official website of the American Association for the Advancement of Science. Available from: <https://science.sciencemag.org/>. [Accessed: 16.10.2020].

It is scary to imagine that manufacturers of Acuvue contact lenses, Always hygiene products, Gucci perfume, Avon cosmetics, and so on used animals.⁴⁰ However, there is no reason to worry, everyone's favorite brands are looking for a replacement. For instance, Avon has stopped animal testing since 1989, becoming the first major cosmetics company in the world to do so. Since then, Avon has been at the forefront of researching alternative ways to test products, using data extrapolation, applying computer modeling, conducting laboratory research at the cellular level, and organizing clinical trials on volunteers, interacting with Institute for In Vitro Sciences and Humane Society International (HSI). Avon recently was included in a very limited list of companies that have been marked by PETA.⁴¹

The Environmental Protection Agency even intends to reduce mammal testing by 30 percent by 2025 and stop it completely by 2035, but I do not think that it is practically feasible at this stage. This may happen several years later.⁴²

New tools and ways of thinking have been created that help study how chemicals disrupt normal processes in the human body at the level of cells and molecules, and computer analysis helps predict many scenarios.⁴³ For example, millions of people now have asthma, however, only two types of treatment have become available over the past 50 years.⁴⁴ It is the same in the world of cosmetics: developers spend a lot of time to create a hypoallergenic ingredient, and grown cells, computer modeling and analysis will greatly speed up the process, allow you to develop more substances and test them safely and quickly.

The question that popped into my head is: why, if there is an alternative that is cheaper, more precisely, are animals still used?

⁴⁰ ORIFLAME. (2013) The European Union bans the import of cosmetics to dozens of brands. Available from: <http://oriflame.ru/actions>. [Accessed: 17.10.2020].

⁴¹ AVON. (2019) 30 years of fighting against animal testing. Available from: <https://my.avon.ru>. [Accessed: 17.10.2020].

⁴² Zaveri, M., Padilla, M., Peiser, J. (2019) E.P.A. Says It Will Drastically Reduce Animal Testing. *The New York Times*. Available from: <https://www.nytimes.com>. [Accessed: 17.10.2020].

⁴³ Britannica.ProCon.org. (2020) Should Animals Be Used for Scientific or Commercial Testing? Available from: <https://animaltesting.procon.org/>. [Accessed: 17.10.2020].

⁴⁴ Britannica.ProCon.org. (2020) Should Animals Be Used for Scientific or Commercial Testing? Available from: <https://animaltesting.procon.org/>. [Accessed: 17.10.2020].

Two, in my opinion, the main reasons. Firstly, it is difficult to abandon the practice developed over the years. Secondly, the modern world still lacks knowledge and experience in the field of alternative methods of animal testing.

New technologies are developing every day, organizations have already been created that develop regulations, sponsor alternative methods, and conduct educational campaigns, so we need to develop further, and in a few years, the world will be able to stop using animals. And, looking at the current situation realistically, it is worth understanding that such a jump is impossible, so for a gradual refusal, it is only necessary to limit animal tests for the time being, and not completely remove them from circulation.

Conclusion

The issue of animal testing is still one of the most controversial in a modern society: it has both positive and negative aspects. There is no consensus not only between the states around the world, but also between the legislators in each state, anyway it is obvious that the problem will not be solved for a long time.

Attention should be paid to the fact that the statistics presented in many sources are several years old, so we can conclude that the data has already changed, perhaps the states hide some information, so it is also impossible to rely on the data with confidence. However, we can still assume that tests on animals are slowly being abandoned, but they will be present in the world for several more years.

Despite the love for animals and a strong desire to protect them, people have to think realistically, putting aside emotions. I suppose, it is necessary to limit experiments on animals, at the same time it cannot be completely excluded from life. So, from the point of view of the law, it is necessary to sacrifice a slightly less important good (the life and health of some animals) for the sake of preserving a more important good (human life).

Legislation is being developed in the world, organizations are being created to protect and support animals, new and accurate alternative methods are emerging, and therefore the world is slowly moving towards the rejection of animal testing.

Animal testing benefits society, so it is morally acceptable to occasionally use animals, yet a balance must be struck between this benefit and the level of animal suffering. Due to the occurrence of alternative methods, it is possible to limit the use of animals, but both options require improvement, much more needs to be done, however, animal testing should not be completely abandoned yet due to the level of development of modern technologies.

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