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PECULIARITIES OF SCIENTIFIC TRANSLATION

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Abstract. This article explores three effective ways to translate biotechnological texts into the English language. The suggestions are solely based on the ideas of prominent linguists and researchers in this field. The author explores basic transformations needed in the translation process to reach adequacy and equivalence.
Key words:biotechnological translation, terminology, equivalence, DNA profiling, DNA Biology, Deoxyribonucleic acid (DNA), Mitochondrial DNA, DNA samples, genetic information.
Аннотация.В статье рассмотрены три эффективных способа перевода биотехнологических текстов на английский язык. Предложения основаны исключительно на идеях выдающихся лингвистов и исследователей в этой области. Автор исследует основные преобразования, которые необходимо выполнить в процессе перевода, чтобы достичь адекватности и эквивалентности.
Ключевые слова:биотехнологический перевод, биотехнологическая терминология, эквивалентность, ДНК-профилирование, ДНК-биология, дезоксирибонуклеиновая кислота (ДНК), митохондриальная ДНК, образцы ДНК, генетическая информация.

The worldwide biotechnological industry has shown excellent growth for many years. Due to a burst of development and incredible breakthroughs in science, particularly in DNA Biology, there is much demand for professional service of translators and interpreters in Uzbekistan. Most researchers and biotech companies are increasingly turning to translation providers for professional translation of their study materials. Since the accuracy of the translations is linked to the accuracy of the study results, researchers frequently turn to companies and translators that have biological translation certification, which in turn has led to an increase in work for language professionals.

The work on the study of biological terminology has a worldwide scale. The significance of this work is very essential since the terminology that serves Molecular biology and Genetics is one of the richest terminological systems. According to various sources, there are nearly 100,000 terms in it, which is much more than in any other scientific discipline. Allocate up to 10 main areas of biology, such as biotechnology, DNA-related literature, biochemistry, biology, zoology, botany, geology, biodiversity, environment, health issues, food, virology, medicine and research studies related to understanding the interactions between the various systems of a cell, including the interrelationship of DNA, RNA and protein synthesis each of which has its own particular system of terms.

It is obvious that the translator's job is to convert the text in the source language to its equivalent in the target language. All translators' skills, and knowledge should be in a high level. Many of biological documents are written by specialists and are meant to be read by specialists; subsequently, the translator has to be an excellent subject matter expert.

The vast majority of challenges that the translator faces in the world of DNA Biology is that it is much specialised field. And with it comes much in the way of expert language that not everyone knows the specific biotechnological terms. Therefore, it is more advisable to call on DNA experts from a range of

different biological institutions to help when it comes to translating molecular and cellular biotechnological documents. Since the translation process should be interpreted with the highest level of accuracy and DNA expert knowledge.

Molecular and cellular biotechnological terminology is one of the most complicated and challenging. The qualitative translation of DNA-related documents have a number of features, such as translating specific vocabulary, ambiguous abbreviations, formulas, clinical trials, scientific findings, specific data, facts, research and investigations on the biotechnology industry.

The most difficult part of the translation work has been to render the terminology specific to this field. As for general terminology as a discipline, Pozzi states that "the ancient process of naming concepts and objects belonging to a special subject or field constitutes an essential part of what is now known as the discipline of terminology". The terms should be appropriate translation equivalents adapted in spelling and should be found in up-to-date parallel texts that are representative of the field. Cabré insists that it is essential to keep to the standardisation of terms to exclude the risk of naming the same concepts with variants of terms. The ultimate goal is the achievement of accurate, modern and unambiguous professional communication" [1].

For others, translation is to substitute a piece of writing in one language by its corresponding piece of writing in another language. As for Ghazzala, translation is any process that results in transferring the meaning from one language into another. For him the main goal is to deliver meaning of the source language by using the equivalents available in the target language [2]. According to Hatim and Munday define translation from two different perspectives. First as a process, translation is an act of taking a text from one language and transforming it into another. In this sense, the above mentioned researchers focus on the part of the translator. Second as a product, translation focuses on the results achieved by the translator, the concrete product of translation [3].

Biotechnological translations have a zero policy for errors. Mistakes can inevitably lead to serious catastrophe. Because translation in this field is a sensitive and confidential process that must comply with laws, regulations and guidelines. Biotechnological translations must be carried out by professionals who understand the required translation procedures and protocols for a wide variety of DNA-related documentation. Accuracy is paramount, which is why all of biotechnological translations go through a double review process.

Biotechnology is a field of life science that is truly vital. Remarkable advances in biotechnology can benefit every person across the globe. Simply defined, biotechnology is the process of harnessing biomolecular processes to boost and develop products that improve our lives. These days biotechnology is a major part of the medical industry, and it has expanded to reach a global audience. For such an expansion to happen and continue, the translation of documents related to the biotechnological industry is essential.

Biotechnological terminology is a young terminological system which is under the stage of formation. The formation of terminological systems of biotechnology is closely connected with the formation of Biotechnology as a scientific field. Despite of the fact that biotechnology began at the end of the twentieth century its terminological system is the formation associated with all course development of genetic and biological issues beginning from ancient times.

Today, vast majority of influential scientific and Molecular and Genetics biotechnological journals are written in English, and English has become the language of international scientific conferences. Hence, we have entered the era of **biotechnological English**, which resembles the era of medical Latin; outstanding biologists and medical doctors have chosen a single language for international communication. Whereas in former times new medical and biological terms were derived from classical Greek or Latin roots, now they are often, partly or wholly, composed of words borrowed from ordinary English. For example, DNA typing – ДНК типирование, DNA profiling – ДНК профилирование.

The Russian famous translator and linguist V.N. Komissarov claims that translation is an important auxiliary tool for ensuring that the language fulfils its communicative function when people express their thoughts in different languages [4]. It also plays a large part in the exchanging of thoughts between different people and serves the cause of spreading knowledge and culture. The need for communication in various spheres of human activity, such as science, culture, trade, constantly increases in the world. In connection with the development of scientific and technical cooperation, trade with foreign countries and the increase in

the volume of information exchange, the ability to translate scientific and technical literature acquires special significance. It is noteworthy that the style of the original document must be maintained with a high-quality technical translation. Vast majority of all documents of a biotechnological sort have the main features, such as: a clear and concise nature of the presentation, strict adherence to technical terminology, a clear logical sequence of information. All requirements for the original text are automatically transferred to the translated document.

Knittlova supports the idea that even though there are a variety of procedures, ways and methods used for translation, all of them should lead to the same target – to achieve the most appropriate form of a translation [5]. She operates with seven main translation procedures that solve the lack of equivalence:

1. Transcription – more or less adapted transcription to the utterance of TL.
2. Calque – literal translation
3. Substitution – substituting one linguistic means with another equivalent one (e.g. substitution of nouns by personal pronouns and vice versa).
4. Transposition – i.e. necessary grammatical changes resulting from the differences in SL and TL systems.
5. Modulation – the change of aspect.
6. Equivalence – Knittlova does not consider this one as a suitable term for using of stylistic and structural means different from the source text.
7. Adaptation – substitution of a situation described in ST with the different adequate situation, e.g. when there is no equivalent of saying in TL.

The target text is the product of the translation process and is an interesting object of study in itself, but another important part of translation is the translation process itself. The article attempts to draw attention to some of these biotechnological language traps, words whose direct meaning can mislead the non-specialists into interpreting in a wrong way. Having translated documents related to DNA profiling, we came to conclusion that the vast majority of all documents of a biotechnological sort have the main features, such as a clear and concise nature of the presentation, a clear logical sequence of information, a strict syntax and sentence ordering, an accurate information, real data, proved assertions

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