### SCIENCE

# **METAMORPHOSES WITH THE NOBEL PRIZE**

«I, the undersigned, Alfred Bernhard Nobel, do hereby, after mature deliberation, declare the following to be my last Will and Testament with respect to such property as may be left by me at the time of my death. The whole of my remaining realizable estate shall be dealt with in the following way: the capital, invested in safe securities by my executors, shall constitute a fund, the interest on which shall be annually distributed in the form of prizes to those who, during the preceding year, shall have conferred the greatest benefit to mankind. The said interest shall be divided into five equal parts, which shall be apportioned as follows: one part to the person who shall have made the most important discovery or invention within the field of physics; one part to the person who shall have made the most important chemical discovery or improvement; one part to the person who shall have made the most important discovery within the domain of physiology or medicine; one part to the person who shall have produced in the field of literature the most outstanding work in an ideal direction; and one part to the person who shall have done the most or the best work for fraternity between nations, for the abolition or reduction of standing armies and for the holding and promotion of peace congresses. The prizes for physics and chem-istry shall be awarded by the Swedish Academy of Sciences; that for physiological or medical work by the Caroline Institute in Stockholm; that for literature by the Academy in Stockholm, and that for champions of peace by a committee of five persons to be elected by the Norwegian Storting. It is my express wish that in awarding the prizes no consideration whatever shall be given to the nationality of the candidates, but that the most worthy shall receive the prize, whether he be a Scandinavian or not».

#### From the Alfred Nobel's Will

The testament was promulgated in January 1897 and lawyers Lillekvist and Sulman began to develop a statute for the future Nobel Foundation. After that the draft was presented to the Swedish parliament to consider. The vote was successful and the charter was decreed and forwarded to the King for its final approval. On June 29, 1900, the idea of Alfred Nobel became a reality. The first Nobel Prizes were awarded in 1901 each in the form of a check for 150 thousand crowns (42 thousand dollars), a diploma and a gold medal with the image of its founder. The ceremony of the award ceremony is held annually on December, 10 in Stockholm and Oslo on the anniversary of the death of Alfred Nobel. Traditionally, the Swedish King invests laureates with gold medals in Stockholm and the Norwegian King participates in a ceremony in Oslo.

For many years, famous and well-known people choose among the nominees to win the prestigious award of the most worthy and deserving candidates. For all the time of existence of the award, in many cases it was awarded deservedly. Nevertheless, in defining the winner, there were still some scandals present. The impression is that, despite an apparent objectivity, there exists a certain lobbying mood and there are some prejudices among members of the jury.

### The poem about the vase was valued higher than the work of Leo Tolstoy

In 1901, to the Nobel laureate, Sully Prudhomme, who earned a fair amount of glory through his verse about a broken vase, was awarded the Nobel Prize *«for outstanding liierary achievements, in particular for the high idealism, artistic excellence and an unusual combination of psychic and talent*». However, the public accused the author of the want of talent – almost the entire literary world was convinced that the prize would have been awarded to Leo Tolstoy for his novel «Sunday». In its justification, the Nobel Committee stated that «*more than most herepresents what the testator called «the ideal «in* lit**erature**», which allegedly played a key role in choosing this particular candidate.

# The killer was nominated for the Nobel Prize for nine times

An equally grandiose scandal was the nomination for the 2000 Nobel Peace Prize of Stanley Williams, who was convicted of murder of four people in 1981. The candidate for the murderer was proposed by Mario Fehr, a member of the Swiss Parliament. Subsequently, Stanley Williams was nominated for this high prize for eight times – however, already in the field of literature. For him this became a great advertisement. Subsequently, Stanley Wylliams gained the world fame thanks to his books for children, which became true bestsellers – he even won the US President's award for that.

# The Nobel Prize was awarded to the scientist posthumously

In 2011, another scandal happened when the American scientist Ralph Steinman became the winner of the prize in physiology and medicine, who died on the eve of his official announcement as a laureate. Since 1974 there was a rule according to which the Nobel Prize was awarded exclusively to living applicants. In 2011, the Nobel Prize was awarded to Ralph Steinman in medicine and physiology, but it was divided between two other scientists – Bruce Beutler and Jules Hoffmann – for their work in the branch of immunology and for their studies in the field of congenital immunity.

### The Vietnamese politician abandoned the prize

The scandal broke out after the announcement of the 1973 Nobel Peace Prize winners. The jury divided the award between the US State Secretary Henry Kissinger and the political activist from North Vietnam Le



Duc Tho (real name and surname – Phan Dinh Khai. – *The note of author*). These politicians received the award for «*working together to resolve the Vietnam conflict.*» However, Le Duc Tho abandoned the Nobel Prize, arguing that the Paris Agreement, signed in January 1973 on the ceasefire and the restoration of peace in Vietnam, was not fulfilled, and the civil war in the country continued.

#### Peace Prize for George W. Bush and Tony Blair

In January 2004, Geir Lundestad, director of the Norwegian Nobel Institute, said that the US President George W. Bush and British Prime Minister Tony Blair were nominated for the Nobel Peace Prize. For what merits? For the war in Iraq?

The vast majority of the world community opposed this war, and almost all European governments have refused to intervene. However, the protests did not help. On March 20, 2003, an invasion of Iraq began.

Ten months have passed since Bush and Blair were nominated for the Nobel Prize – at that time Iraq has already been in ruins, at least 100,000 Iraqi civilians have been killed, more than 32,000 US soldiers have been injured.

#### **President Obama's Peace Prize**

In 2009, «for his extraordinary efforts to strengthen international diplomacy and cooperation between peoples», the Nobel Peace Prize was awarded to the US President Barack Obama. Apparently, members of the committee were influenced by the statements of the American president, which he voiced at the beginning of his second term of an US President. However, the events that took place subsequently forced the jury to regret their choice because of the bombing of Libya by US aircraft, because of the war in Syria, because of the assassination of the «terrorist number 1« Osama bin Laden, instead to bring a criminal to justice. So Thorbjørn



№ 1-2, 2018

### SCIENCE

Jagland, chair of the Committee, in a courtesy form, asked President Barack Obama to return the medal he received.

## CIA influenced the award of the Nobel Prize to Boris Pasternak?

The actual «bomb» was the article of the Italian edition «La Stampa» (http://www.lastampa.it/2009/01/09/cultura/pasternak-soffi-il-nobel-a-moravia-grazie-alla-ciafitb1k8ssIKd2wloasteQJ/pagina.html), published in 2009 by Francesco Saverio Alonzo under the eloquent title: «Pasternak took away the Nobel Prize from Alberto Moravia through the efforts of the CIA.» The author described how in 1958, thanks to the CIA, the Nobel Prize in literature was awarded not to the Italian writer Alberto Moravia, but to the Soviet writer Boris Pasternak. Alonzo claims that this was due to the efforts of the CIA. Moravia joined the three leaders, together with the writer Karen Blixen from Denmark and Boris Pasternak from the USSR. At that time, the works of Alberto Moravia gained a great popularity among readers all over the world. However, in 1957, Harry Martins introduced and described Pasternak as «the greatest writer of the century.» Referring to the archives' materials, the author claims that the majority of the jury members of the Nobel Committee wanted to give the Award to Alberto Moravia. However, it was awarded to Boris Pasternak. Alonzo writes, that such a choice has been influenced by the CIA's lobby in the Swedish Academy of Sciences. So the prize should be awarded to the literary dissident, whose novel «Dr. Zhivago» was banned in the USSR - such an action had to become a real scandal and should lead to an even deeper conflict between Washington and Moscow. The Soviet regime gave the writer a clear idea that a trip to Stockholm would turn him into a loss of Soviet citizenship. Pasternak loved his motherland too much and for him such an event was unacceptable, so he did not dare to accept the award. Alonzo sums up, that next year, to somehow «catch» Italy, the Nobel Committee decided to award the Prize to another Italian writer Salvatore Quasimodo. Two years before his death, Boris Pasternak said that he would gladly receive the Nobel Prize.

If the misunderstanding or even the scandals with the awarding of the Nobel Prizes in the field of literature can somehow be explained by certain artistic preferences and the subjectivity of jury members, but how to explain the position of members of the committee, who take some contradicting decisions, when the point of discovery is extremely important for the whole mankind?

#### The Nobel Prize is awarded not to Professor Oleh Hornykiewicz, but to Arvid Carlsson from Sweden

Professor Oleh Hornykiewicz, an ethnic Ukrainian, the prominent scholar in the field of neurophysiology, a citizen of Austria, was the very first scientist in the world who has thoroughly studied the nature of Parkinson's disease, for what he received the honorary award – the Golden Medal of the Canadian Association of Parkinson's Disease.

№ 1-2, 2018

**УНІВЕРСУМ** 

One of his fundamental achievements was the discovery of the cause of Parkinson's disease – a dopamine deficiency in the brain. It was Professor Hornykiewicz who played a key role in the development of therapy for this disease with «levodopa», which still remains the most effective anti-Parkinson's disease medical preparation to date.

Nevertheless, in 2000, the Nobel Committee rejected the candidacy of Professor Oleh Hornykiewicz for awarding to him this high prize in medicine. Instead, the Nobel Prize in physiology and medicine for the study of the properties of the neurotransmitter dopamine and its effects on patients with Parkinson's disease was awarded to the Swedish pharmacist Arvid Carlsson.

This decision of the Nobel jury was indignantly impeached by 269 leading neurologists and brain researchers from the universities of Brazil, China, Germany, England, Finland, France, the United Kingdom, Guam, Hawaii, India, Ireland, Italy, Japan, Canada, New Zealand, the Netherlands, Austria, Saudi Arabia, Spain, Taiwan, Turkey, Ukraine, Hungary, the USA. These scientists have written and signed a letter in support of Oleh Hornykiewicz, published in 2000 in « the magazine Science», which is one of the most famous scientific journals in the whole world.

It is clear from the letter that scientists were shocked with the fact that the Nobel Prize was awarded not to Professor Oleg Hornykiewicz but to another person. We quote: «Our daily life makes us acutely aware that it was the work of Hornykiewicz, which established the vital link between the basic discoveries of dopamine and the mechanisms of brain disease in human beings and their treatment. Without that link even the most remarkable laboratory discoveries cannot realize their potential and may thus remain futile or even be forgotten. In 1960, Hornykiewicz for the first time analyzed a large number of fresh brains of neurologically normal individuals and of patients with various basal ganglia diseases and unequivocally established that marked striatal dopamine deficiency was characteristic of Parkinson's disease. (...) His observation formed the basis of levodopa therapy in Parkinson's disease-to say nothing of the stimulus this work has given to countless, analogous studies in many other neurologic and psychiatric disorders. Since the original work Hornvkiewicz has made many other seminal observations to better understand the extrapyramidal diseases.

(...) Due to the direct impact of levodopa, to date there are more than 31 million person years of remarkably improved human life in Parkinson's disease. (...)

We, as those who are directly seeing the continuing benefit of Hornykiewciz's discoveries, feel strongly-also on behalf of those who have enjoyed the benefit-that we owe him this open statement of acknowledgement both as a sign of our own gratitude and on behalf of the many millions of patients throughout the world».

It is clear from this letter that it was Professor Oleh Hornykiewicz who made a decisive contribution to decoding the mechanism of Parkinson's disease. Despite the fact that the scientist from 1973 to 2000 was nominated for the Nobel Prize for almost ten times, he still has not received it.

And we can only rhetorically ask: why?

#### Will the Nobel Prize be awarded for the invention of the first anticancer preparation with a selective effect?

This is, in particular, the case with the invention of the world's first effective anti-cancer preparation with a selective effect that destroys only cancer cells without damaging healthy cells, developed by Dr. Wassil Nowicky, who is ethnic Ukrainian as well as the citizen of Austria too.

The development of an effective anticancer preparation with a selective action that destroys only cancer cells without damaging healthy cells was one of the greatest dreams of all scientists in the whole world (http://www.economist.com/node/18743951). The preparation «UKRAIN» (NSC631570) is the first product that possesses such unique properties which was confirmed by 12 universities of the world, where the studies on more than 160 cancer cell lines and 12 healthy cell lines were carried out. Therefore, in 2004, Dr. Wassil Nowicky, together with Dr. Anatoliy Potopalskiy and Dr. Mariya Oliyevska, with whom he had taken the first steps in developing this medical preparation while still in the Soviet Union, were nominated for the Nobel Prize (http://ukrin.com/ de/nobel-preis).

The application documents were sent to the Nobel Committee for three times (!), but for some unknown reasons, they disappeared on the road, and only at the third try they reached the Nobel Committee only two days before the deadline of tendering applications.

This story began in September 2003, when the Nobel Committee sent an official letter to the well-known scientist, head of the Department of Biochemistry and the head of the Laboratory of Biologically Active Substances at the National Yanka Kupala University in Grodno (Belarus), Chairman of the Union of Biochemists of Belarus, Professor, Doctor of Medical Sciences, Leonid Nefyodov, asking him to present the names of scientists in the chemistry for the Nobel Prize of 2004 (http://www.ukrin.com/docs/nobel\_letter.pdf). In October 2003 Professor Nefyodov presented the recommendation and necessary documents for awarding the Nobel Prize to Dr. Wassil Nowicky, Dr. Anatoliy Potopalskiy and Dr. Mariya Oliyevska for the scientific achievements in the development and synthesis of the substance on basis of celandine with a unique property to accumulate in cancer cells.

In the end, the selective action of the medical preparation «UKRAIN» is not the only property that deserves the award of the Nobel Prize. Equally important is the ability of this preparation to auto-fluorescence under the UV light, which improves the visibility of tumors and facilitates their separation from healthy tissues during surgeries.

In the accompanying letter Dr. Nefyodov noted, in particular, that: «...In the late

### SCIENCE

1960s Wassil Nowicky, Anatoliy Potopalskiy and Maria Oliyevska began to study herbal alkaloids in the Department of Pharmacology at Lviv Medical Institute, Ukraine. These studies resulted in the creation of new semisynthetic alkaloid derivatives with various biological effects. ( ... ) In the 1980s Wassil Nowicky developed further new herbal alkaloids derivatives. (...) One of these new compound (Nowicky called it 'Ukrain') was readily water soluble and became an extraordinary important medical drug. It is the first anticancer drug that selectively accumulates only in malignant cells (in both primary tumor and metastases) without affecting healthy cells. Randomized clinical trials revealed Ukrain to be highly effective in treating even such chemotherapy resistant malignant tumors as pancreatic cancer and colorectal cancer. In vitro tests of the National Cancer Institute, Bethesda, USA, demonstrated a cytolytic effect of Ukrain (NSC631570) against all eight colon cancer cell lines tested. (...) Thus Ukrin is the first malignocytolytic anticancer drug that is both highly effective and non-toxic in therapeutic dosage, with immune modulating, anti-angiogenic and antiviral effects». (http://www.ukrin.com/docs/nobel\_letter.pdf)

But marvellously, the documents reached the Nobel Committee only after the second attempt and almost too late, and in the end the award has not been awarded to the nominees.

Subsequently, in October 2004, in another letter to the Nobel Committee, Professor Nefyodov emphasized, that *«thousands of scientists have already tried to find a substance that accumulates selectively and efficiently in cancer cells without in therapeutic dose attacking healthy cells. However, only the above-mentioned group has managed this epoch-making discovery. (...) From the point of view of modern biochemistry it is absolutely clear that the discovery of the molecular mechanisms of the interaction of this*  substance with cancer cells will enable us to approach the events at the basis of the onset of cancer. In addition, this discovery would enable humanity to understand the basic mechanisms in the development and treatment of tumors as well as enabling the development of methods of early diagnosis and prevention of this disease». In the same letter Professor Nefyodov said: «( ... ) I am thoroughly convinced (...), that such regrettable misunderstandings could be avoided if there was efficient feedback between the Committee and scientists and if the procedure for the nomination and award of this highest and most famous scientific prize could take place more transparently». (http://www.ukrin.com/docs/lettertonobel.pdf)

On October 28, 2004, Professor Leonid Neyodov wrote an open letter to the famous London newspaper The Times (http://ukrin. com/docs/times.pdf), and on April 7, 2005, to the Swiss «Neue Zürcher Zeitung» asking their editorial staffs to pay attention to the issue of the non-transparent selection of candidates for the Nobel Prize. From the Swiss newspaper Nefedov even received an answer: Dr. Alan Niederer from the scientific department of the editorship has declared :«we are planning to publish next year an article on the process of nomination of candidates for the Nobel Prize. On this occasion we will also address the issue of transparency of this process» (http://www.ukrin.com/docs/ zuercher zeitung.pdf).

Professor Leonid Nefyodov calls the history of «UKRAIN» «dramatic» and considers the non-awarding of the prize for this invention as inequitable. He stated, that in a telephone conversation, the representative of the Nobel committee said that for centuries of the history of the institution's existence there was no one case that the application for the Nobel Prize had disappeared. But the first package of the documents still has been lost! And we note: the documents were received by the representatives of the Nobel Committee **only at the third try and only two days before the deadline.** In fine, the Nobel Prize was not awarded to the above mentioned candidates.

So in 2004 the Nobel Prize in Chemistry for «for the discovery of ubiquitin-mediated protein degradation» (https://www.nobelprize.org/nobel\_prizes/chemistry/laureates/2004/index.html, was awarded to two scientists from Israel – Aaron Cichanover, Avram Hershko – and an US scientist Irwin Rose.

The first publications of these authors on the theme of ubiquitin were dated with 1980, though the results of the studies on ubiquitin have already been published in more than 150 articles by dozens of other authors in such famous scientific journals as «Nature», «Science», «Journal of Immunology» before. E.g. James W Geddes, has already published 70 articles on ubiquitin at that time. In 1975, for example, he published an article titled «Thymopoietin, ubiquitin and the differentiation of lymphocytes».

New proteins are invented constantly. Their functions are decoded as often. Certainly, many scientific works contain something new and interesting, but not all of them deserve the Nobel Prize, and not every job can be called «epochal discovery,» as stated in the testament of Alfred Nobel.

The importance of the Nobel Prize lies in the fact that after its awarding the possibilities of further empirical studies on the discovery are increased.

The impression is that nowadays it is not important *what* discovery has been made, but much more important is *who* made it and *where* it was made. This tendency not only does not contribute to the development of mankind, but also undermines the already shaky faith of people in justice.

#### Viktoriya O. ROMANCHUK



**УНІВЕРСУМ** № 1-2, 2018