

INITIATIVES OF PROF. GEORGE EMIL PALADE REGARDING
THE SUPPORT AND EDUCATION OF A NEW GENERATION
OF SPECIALISTS AND MANAGERS IN ECONOMICS,
ENGINEERING AND RESEARCH, NEEDED IN ROMANIA IN THE
CONTEXT OF THE TRANSITION TO A MARKET ECONOMY

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Abstract. Prof. G.E. Palade played an important role as initiator and founder of many actions that influenced the domain of research and formation of young researchers, implementing the model of cooperation in developing common research projects in the teams, formed by Romanians and foreign fellows. This model can be of great success in assuring *brain-gain* for Romanian young researchers, by creating the possibility to cooperate in common projects and obtain the results and recognition at national and international level. Starting with the year 1991, Prof. G.E. Palade initiated an action for helping Romania in promoting and forming a new generation of professionals and managers in science, engineering, and economy, needed for the transition to market economy. These initiatives and actions are reflected, as chronology, in the correspondence and discussions at the highest levels of authorities in Romania, presented in this paper.

Professor G.E. Palade, as the first Romanian that received Nobel Prize (for Medicine and Physiology – 1974), represents a reference for young generation, and especially for that which approach the way of hard, complex, and formidable work in research and development, associated with high education [10]. Prof. G.E. Palade played an important role as initiator and founder of many actions that influenced the domain of research and formation of young researchers, implementing the model of cooperation in developing common research projects in the teams, formed by Romanians and foreign fellows. Based on this model, with the help and at the initiative of Prof. G.E. Palade, in Bucharest have been founded and implemented the Institute of Biology and Cellular Pathology, by Acad. Nicolae and Maya Simionescu in 1979, that have to become internationally recognized as center of excellence and member of UNESCO network of research in molecular and cellular biology. This model can be of great success in assuring *brain-gain* for Romanian young researchers, by creating the possibility to cooperate in common projects and obtain the results and recognition at national and international level.

Starting with the year 1991, Prof. G.E. Palade initiated an action for helping Romania in promotion and forming a new generation of professionals and managers in science, engineering, and economy, needed for the transition to market

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economy. These initiatives and actions are reflected in the correspondence and discussions at the highest levels of authorities in Romania (Presidency, Government, and the Romanian Academy). The documents related to these initiatives and actions are presented on this paper, in the form of chronology, starting with the letter addressed by Prof. G.E. Palade to the Romanian Academy, in October 1991, asking to intermediate the contacts with President of Romania.

The undertakings of Prof. George E. Palade have concretely materialized through letters and other written materials, generated by the proposals put forth through these letters, presented as references [1,2,...,8], being the main source of this presentation. The chronology of these letters and of the actions taken at the highest state levels is as follows:

1. On 03.10.1991 professor George E. Palade, at the time the Scientific Dean of the Medical School of UC San Diego, addressed Academician Mihai Draganescu, the president of the Romanian Academy [1], asking him to forward to the President of Romania, Ion Iliescu, an envelope which included a letter [2] and an appendix [3], in which he expressed his opinion about what should be necessary and priority for Romania, which was facing a number of major problems.

This letter addressed to the President of Romania, Ion Iliescu, states (according to the original in English from Reference 2):

Dear President Iliescu,

During a recent interview with the Romanian Desk of Radio Free Europe, I outlined a program for the formation of the new cadres which – in my assessment – are needed for economic, industrial and scientific recovery of Romania and for her successful adaptation to a free market economy. The program envisages the formation of new leaders in economy, engineering and sciences abroad, and suggests that this mission should be entrusted to Romanian Academy to mark the 125th anniversary of its foundation.

With my best wishes, I remain

Yours sincerely,

George E. Palade

In the Appendix to this letter, edited in Romanian with the title “**Proposal to the Romanian State and Romanian Academy**”, it is stated (according to the original of the appendix to the letter from Reference 2):

“Romania presently has to overcome a number of major problems. Political issues related to the future relationships with the Republic of Moldova, and significant economic problems regarding rebuilding the economy and the transition to free markets.

With such an agenda, the state is at risk of overseeing long-term issues, but of major importance for the future of Romania in the economic field, higher education, science and technology associated with scientific research or derived from it.

Like all its neighbors from Central and Eastern Europe, Romania has been left behind by almost four decades in the applied, as well as in the basic scientific research fields. This is the unfortunate result of the isolation imposed by the communist regimes that dominated in the region. Correcting this situation is one of the main factors on which the economic recovery depends.

The most efficient solution for the remedy of the wounds left by the isolation is the education of new scientists in basic sciences: physics, chemistry, biochemistry, biology, biomedical sciences, engineering – especially in modern engineering aspects – and, just as important, in economics and management.

Romania needs new specialists, educated at an internationally competitive level for the recovery of its economic, industrial and scientific life, recovery that on its own is necessary for the support of the national culture, the only aspect from its existence that was overlooked during the isolation period imposed by the communist governments.

Educating new specialist has two characteristics worth outlining:

- takes time;
- does not require significant investments.

Educating specialist can start abroad, in Western Europe, US and Japan, with laboratory work or university coursework of 2–3 years that can be followed by working inside the country for a similar period. Time invested in education must be at least five-six years long, meaning that the first steps for such a program must be initiated as soon as possible.

Educating specialists requires relatively modest investments. For one hundred scholarships, it is necessary to spend two million dollars annually. Considering the importance of such a program, the state can release the necessary resources even if it should borrow the respective funds.

The program could be amplified by negotiating with foreign governments or with foundations interested in such programs, arrangements in which each party contributes with at least half of the funds. A significant Romanian contribution would be taken as proof of the importance the Romanian government gives to the situation. The Romanian scholars would work abroad and could ensure locally their means for support for another one or two years, if their performance would be appreciated by the laboratories and institutions in which they would work. Under current circumstances, we cannot rely only on private initiatives that can release only a limited number of scholarships. It is necessary to have a larger program, well thought out and applied that would take into account in detail the needs of the country.

The initiative for such a program could be taken by the Romanian Academy, together with other qualified institutions. It would be a mission that would rise up

to the track record of the Academy, as well as to its wish of reviving the scientific and cultural life of the country. Such a mission would mark in a useful and visible way the anniversary of 125 years since the foundation of the Academy.

George E. Palade”

2. On 20.01.1992, the President of Romania Ion Iliescu sent a reply to this letter in which he expressed his gratitude for his interest in the country, in educating a new generation of specialists and managers in economics, engineering and research that would be useful to Romania under the new circumstances of transition to the market economy [4]. In this letter, the President presents the discussions with the management of the Romanian Academy (Prof. Mihai Draganescu) and with the Education and Science Ministry (Prof. Mihai Golu), while he would be updated with the actions taken during his visit in the country in May (1992) for participating to the international conference “Academic liberty and university autonomy” hosted by Romania [4].

On 29.01.1992, Prof. George E. Palade sends a letter, thanking for the prompt reply and actions taken, confirming his desire to come to Bucharest and to discuss the proposed subjects with interested parties.

At the Romanian Presidency, based on the discussion had with the President and with the responsible parties, the creation of a Foundation was proposed in order to promote the education and specialization of youth abroad, according to the requirements and priorities for the development of Romania under the new economic and socio-political context. On 20.01.1992, through an internal note, the President of Romania through his presidential adviser Marius Guran [6] proposed the presentation of a mission outline and a status project of the Foundation, supporting its creation primarily with the contribution of the Romanian Academy and the Ministry for Education and Science. This note was outlined based on the discussion with the President of Romania on 09.01.92 with the responsible parties involved in research, development and education. On this occasion, the Romanian Academy has delegated Acad. Nicolae Simionescu to follow the creation of the Foundation, while the President delegated his Presidential adviser, Prof. Marius Guran.

3. On 13.05.1992, a meeting and an extensive discussion took place between the President Ion Iliescu and Prof. George E. Palade in the library of the Cotroceni Palace. During the meeting, the necessity of opening Romania to the world was outlined, through the education within the chief universities and research centers or laboratories of the developed countries of Romanian young researchers, selected based on talent, passion and professional competence. The education model recommended by Prof. George E. Palade has been experimented by the Institute for

Biology and Cellular Pathology throughout the years. In Appendix [7] an internal note is included, made by the Presidency regarding the meeting and discussions from Cotroceni.

Outlining the status and obtaining the court decision for the Romanian Foundation for Science (FRS) have stayed with the Romanian Academy (through Acad. N. Simionescu), with the support of the Presidency (through the presidential advisor Marius Guran), which facilitated getting the foundation headquarter (Str. Dem I Dobrescu 11, sect 4), a building from where an American foundation was about to move out upon the expiry of their rental contract.

Financing FRS, very complicated through budgetary sources, was attempted through normative acts (Law of Government Decision), which would stipulate the allocation of about 5% from the funds obtained from taxes (in hard currency) paid by foreign students in Romania (about 500 000\$ annually). Following the elections from 1992 and the formation of the new Government, the documents necessary for promoting the normative acts have been outlined, by which FRS financing could be done and ensuring the necessary logistics, which could not be finalized by the coalition Government in the last part of 1992. As initiators of the normative acts, we can mention the Romanian Academy, the Education Ministry and the newly created Research & Technology Ministry [8]. Copies of the materials created have been forwarded to the Presidency, involved in their conception, for information and follow up (through the presidential advisor, Prof. Marius Guran). Financing for the academic research stages and PhD grants has been obtained on the basis of H.G. nr. 697/1996, modified later by H.G. nr. 533/1998.

The Foundation, after 1996, and the regrettable death of Acad. N. Simionescu, has become the National Foundation for Sciences and Arts (FNSA), changing its status and initial orientation, but keeping the founding members and the Honor President, Prof. George E. Palade, which was going to express his opinion about its orientation through a note, named suggestively “*Sciences and Arts*” (*Științele și Umanioarele*, in Romanian) which is the foreword to the presentation prospect of FNSA.

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