Introductory presentation of Professor Gheorghe Benga at the opening ceremony of the Second World Congress on Water Channel Proteins*

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A short professional biography of Professor Gheorghe Benga who organized this Congress is presented.

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I have the pleasure and honor to introduce Professor Gheorghe Benga, member of the Romanian Academy to give the Opening Lecture.

Born in 1944, Gheorghe graduated the Faculty of Medicine,"Iuliu Haţieganu" University of Medicine and Pharmacy in Cluj-Napoca (1967) and the regularly courses of the Faculty of Chemistry, "Babeş-Bolyai" University Cluj-Napoca with a master thesis in Chemical Physics (1971). Prof. Benga had an exceptional scientific career in the Romanian and internationally context. He received many scientific prizes, also several awards as Dr.h.c. of different Universities and was invited speaker and invited professor in dozens of Universities and Institutes around the world. He is the author of more than 30 books which appeared in Romania and in the well known world publishing houses as CRC Press Boca Raton, Florida,USA., Springer, Annals of the New York Academy of Sciences etc. He authored more than 350 scientific papers in top international journals, with more than 2100 citations and H index 24.

I know him from 1976, after his return from the post-doctoral work with Dennis Chapman in England, supported by a Wellcome Trust grant. Gheorghe succeeded to persuade Wellcome Trust and the National Council for Science and Technology of Romania to fund a British-Romanian research program called "Studies on biomembranes leading to new methods of diagnosis and treatment of human diseases".

The program continued with several grants for collaboration between the "Benga group" (at the "Iuliu Hatieganu" University of Medicine and Pharmacy Cluj-Napoca) and investigators from Kings College University of London (John Wrigglesworth from Biochemistry Department and Tony Brain from the Electron Microscopy Unit).

I myself have worked abroad as a post doctoral fellow at the National Research Council Council of Canada, as a research associate at the George Washington University, Washington, D.C. and received the Humboldt Dozentenstipendium in Germany. After returning to Romania, I led a laboratory at the Institute of Atomic Physics in Bucharest where we synthesized, with my wife Maria, spin labels for the first time in Romania.

In England, Gheorghe learned some molecular biophysical techniques, including spin labeling and NMR. We started a fruitful collaboration with the "Benga group" (at the "Iuliu Hatieganu" University of Medicine and Pharmacy Cluj-Napoca) and with the group of Vasile Morariu (at the Institute of Isotopic and Molecular Technology in Cluj-Napoca). We had together several grants from the Academy of Medical Sciences of Romania, from the former National Council for Science and Technology and other funding agencies.

Gheorghe Benga organized in 1981-82 a Romanian-American workshop (first part in 1981 in Cluj-Napoca, second part in 1982 in New York) supported by National Science Foundation, The New York Academy of Sciences) and the National Council for Science and Technology of Romania. For the first part of the workshop 10 American scientists were invited to Romania. For the second part of the workshop in New York, 10 Romanian scientists were invited. However, only 3 were allowed to leave Romania. Vasile Morariu and myself have not received approval to attend this workshop

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However, as a result of the Romanian-American workshop, the National Science Foundation of USA, reluctantly accepted to evaluate (and fund) proposals for collaboration between Romanian and American groups. One of the proposals funded was between "Benga group" and "Professor Kummerow group" of the University of Illinois at Urbana-Champaign. Ross Holmes, a post-doc in Kummerow's Burnsides Research Laboratory, came to Cluj-Napoca, where the crucial experiment of "Benga group" identifying the first water channel protein was performed. I witnessed this experiment, as well as the collaborative NMR work between "Benga group" and "Vasile Morariu group".

At this moment Gheorghe Benga group PIONEERED the discovery of the first protein channel for water from the human red blood cell (later called aquaporin 1), published in American scientific journals well in advance to Peter Agre who received The Nobel Prize for Chemistry in 2003 for discovering the "water channels".

Professor Gheorghe Benga deserved to be also nominated to receive the Prize Nobel, because he published this discovery in the well known journal Biochemistry (1983) also and in other top internationally scientific journals. But he was ignored by The Nobel Committee. Interestingly, not only for you, is to emphasize, that Agre didn't even mentioned the papers of Gheorghe Benga group in the printed version of his lecture as Nobel laureate– which is an elementary duty for a scientist. A non-comment is a comment.

Here it is worth mentioning what Galileo Galilei said: "all the truths are easy to be understood when they have been discovered, the problem is to be discovered".

But since the Nobel Committee didn't comment publicly its numerous and well known deliberated omissions of scientists who were not awarded the Nobel Prize since 1901, despite the fact that their merits were LARGELY recognized by the scientific community, the frustrated Gheorghe Benga founded in 2004 for the first time in the world, The OUTNOBEL FOUNDATION, located in Cluj-Napoca, Romania, which awarded recognition to well known scientists, to whom The Nobel Committee refused to accept their discoveries and merits, according their priorities based on the published work.

In 2004, because numerous scientific personalities from Greece, USA, Japan etc recognized the Benga priorities in the discovery of aquaporin 1, Gheorghe initiated a PETITION ADDRESSED TO THE NOBEL COMMITTEE, PETITION WHICH DEMONSTRATED THE PRIORITY OF HIS DISCOVERY several years before Agre published his papers. This petition received more than 4000 signatures of scientists from 40 countries who recognized the priority of Benga as the FIRST who discovered the aquaporin1. The petition can still be signed on Gheorghe's web site. It was an impressive international solidarity and we can assume that will have a certain impact for the future Nobel Prize Laureates who should be awarded only based on merits regarding their priority as first discoverers.

In conclusion, I am obliged to remember that in the history of science in Romania there are other scientists who made epochal discoveries for the first time who were not recognized by the Nobel Committee. I am mentioning only two: Professor Paulescu for the discovery of insulin for treating diabetes and Victor Babes the discoverer of the serotherapy. Both opened a new era in medical sciences.

I invite now Gheorghe to give the opening lecture:

„From the discovery of the first water channel protein (later called aquaporin 1) and the 2003 Nobel Prize in Chemistry to AQUAPORINOLOGY and AQUAPORINOPATHOLOGY of today".

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