



## Prof. Greta Pifat-Mrzljak (1939–2009)\*

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*To the memory of Greta Pifat-Mrzljak  
She was a citizen of the world  
and in her heart a true citizen of Croatia.  
Greta personified Croatian culture,  
humanities, arts and sciences.*

The words of the Nobel Laureate Manfred Eigen and Prof. Ruthild Winkler-Oswatitsch, engraved on the memorial alongside the Canadian maple-tree which they planted at the Ruder Bošković Institute in memory of Prof. Greta Pifat-Mrzljak, who died on the 11th December 2009. Their words fully summarise the personality and professional work of Prof. Pifat-Mrzljak. As a person of exceptional energy and talent, in segments of her work she bridged the gap between visionariness and reality and in many ways went beyond the border of the Republic of Croatia and indebted world science. Although she collaborated and was on friendly terms with Nobel Laureates and many other world renowned individuals in the field of science and politics, she greeted everyone with equal pleasure, always ready to help privately or professionally. Consequently many turned to her for help. She always placed the common good before her own. She overcame all obstacles with pedagogic uncompromising sincerity and thus showed how an honourable human being can overcome the boundaries of his restricted physical existence.

The scientific opus of Prof. Greta Pifat-Mrzljak is extremely abundant (<http://www.irb.hr/hr/events/confpages/biophysics>). It consists of over 60 source publications, printed in journals cited by *Current Contents*, 16 professional publications, 64 invited lectures, 68 presentations at congresses and symposia. She was editor of 27 books, organised 31 symposia, principal investigator of 12 scientific projects, she was also a guest scientist in many world centres. For her work she received 6 awards.

In this short presentation we will select just a few interesting details from her tireless work, which demonstrate that Prof. Pifat-Mrzljak went beyond the scope of her parent institution and homeland.

Prof. Greta Pifat-Mrzljak's interest in biophysics, incited by the influence of Dr Siniša Maričić through research of haemoglobin, was demonstrated in her first scientific study, which was published in 1964 in the distinguished biophysics journal *Biochimica et Biophysica Acta*. Biophysics is an interdisciplinary science in which the collaboration of scientists of different backgrounds is essential, and therefore the organisation of a monthly meeting of the Croatian Biophysics Society was the logical task of the President, Prof. Pifat-Mrzljak. It was a novelty at that time in the Institute, and lectures, at which foreign scientists frequently

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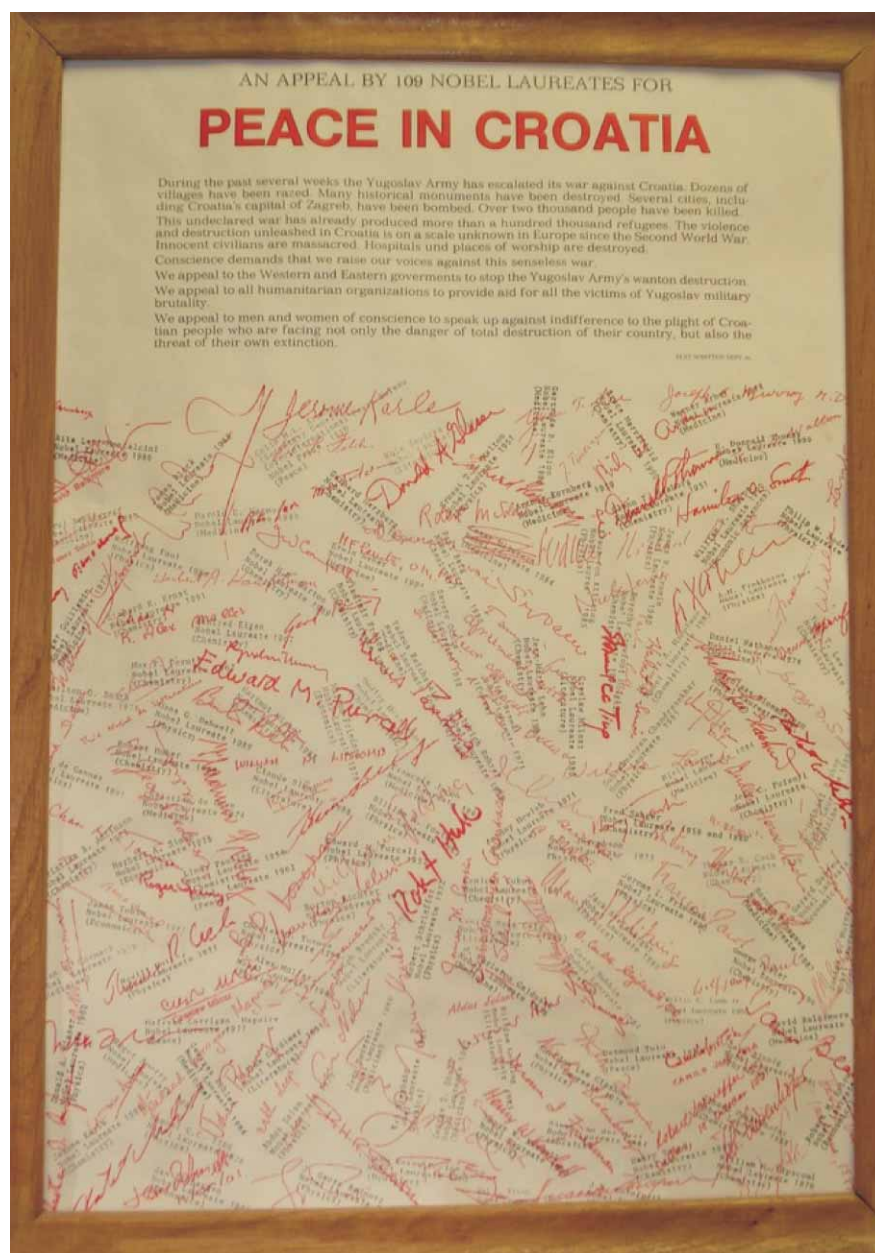
**Figure 2.** Group photograph of participants in the International Summer School on Biophysics, Red Island, 2006.

took part, were very well attended. Very soon members of other institutions began to attend. At that time biophysics in Croatia was in its infancy, and it was necessary to educate young investigators. As the President of the Association of Biophysics Societies in former Yugoslavia, Prof. Pifat-Mrzljak became involved in a new adventure, which in time will become her greatest achievement and her favourite activity. In 1981 with great resoluteness she succeeded in arranging for the Ruđer Bošković Institute and Croatian Biophysics Society to organise together the international summer school in Biophysics, which in time became a Croatian scientific *brand*. With great per-

sistence and negotiation she was given the opportunity of holding the School in the hotel complex of the Yugoslav National Army (JNA) in Kupari. With her personal acquaintances she succeeded in bringing together currently the most well known names in the field, and ensured sponsorship of the world biophysics organisations IUPAB and UNESCO for the programme. During the period from 1981 to 2009 ten schools were held with intervals of three years. Because of the Homeland War the School which was envisaged for 1993 was held in 1994 on the Red Island at Rovinj. As it was impossible to return to the devastated Kupar the School remained on the new loca-



**Figure 1.** Prof. Greta Pifat-Mrzljak in 2004 during the Day of Open Doors of the Ruđer Bošković Institute with Prof. Stjepan Marčelja, Director of the Institute, and in 2008 at the entrance of the Ruđer Bošković Institute waiting for visitors.



**Figure 3.** Appeal for Peace in Croatia which was signed by more than one hundred Nobel Laureates. The Action organised by the Nobel Laureates M. Eigen and R. Huber was coordinated by Prof. Greta Pifat-Mrzljak.

tion. During the 30-year period more than 300 lecturers participated gratis in the work of the School, all eminent world scientists or Nobel Laureates. The School always included »sensitive« themes. The basic idea of Prof. Pifat-Mrzljak was to enable young scientists from Croatia to meet and actively associate with eminent scientists and young biophysicists from the whole world during lectures, seminars and discussion clubs, which her concept of the School achieved. Each School was attended by at least 25 young Croatian scientists. It was for all an unforgettable scientific experience. They transferred the atmosphere of this association to their own institutions. Thus it is of no surprise that the School quickly became well known and acknowledged in the international scientific

world. It was awarded the UNESCO School Certificate, and many universities in Europe included the School in post-graduate *curriculum*. Prof. Greta Pifat-Mrzljak, organiser, director and good spirit of all the Schools, was presented with the award »Emily M. Gray« for 2010, by the American Biophysical Society, for her contribution to the promotion of scientific research and education in the field of biophysics.

Prof. Greta Pifat-Mrzljak spread the truth about occurrences during the 1990's and the threat of war in Croatia throughout the world by writing letters to well known scientists, encouraging our scientists abroad to take some action. Consequently, at the beginning of the

Homeland War, with the help of two Nobel Laureates, Professores Manfred Eigen and Robert Huber, a unique appeal was organised under the name *Appeal for Peace in Croatia*, which was coordinated by Prof. Pifat-Mrzljak. More than a hundred Nobel Laureates signed the appeal for peace, and Prof. Pifat-Mrzljak collected and documented all activity of co-workers in the Book *Nobel Laureates for Peace in Croatia*, University edition, Zagreb, 1992. In fact the appeal was unique in the history of Nobel Laureates, who gathered together with the aim of preventing military aggression in a country.

As the Deputy Minister of Science and Technology of the Republic of Croatia, Prof. Pifat-Mrzljak worked intensively on two important projects: a catalogue of Croatian scientists outside the homeland and an exhibition *Science in the Croat, Natural Sciences and its Application*. She was Editor-in-Chief of the edition *Scientific Research in Croatia* of the Ministry of Science and Technology, Zagreb, 1995, and two catalogues which accompanied the exhibition in 1996. A great wish of hers, sadly never realised, was for parts of the exhibition to remain as permanent parts of a future museum of natural sciences.

The leading idea of Prof. Greta Pifat-Mrzljak, even in the early days, when as a young doctor of chemistry she returned from a study visit to Prof. Manfred Eigen, her role model, tutor and co-worker in the Max Planck Institut für Biophysikalische Chemie in Cöttingen, was for science to become familiar and accessible to everyone, because understanding leads eventually to individual opinion. She was surprised at the level of disinterest and neglect of the »public« for science and the latest achievements. Scientists were considered odd characters who »amuse themselves« behind the closed walls of institutes and who spend money for no useful purpose. Their success in science, about which it was occasionally possible to read in the newspapers, was presented in an unintelligible and boring language. At that time she decided to permanently and conscientiously with great determination and enthusiasm to create communication between scientists and the public, which she continued to do throughout her whole working life. With this intention, by a revival of events at the Ruđer Bošković Institute under the name *Open Door Days of the Ruđer Bošković Institute* a new concept was given. With special care and inexhaustible ideas she encouraged young scientists to arrange presentation of their work to pupils and interested

public, prompted by her wish to create communication and understanding at all levels and in different circumstances. In this she succeeded as scientists are no longer considered odd characters, and science is written and talked about, people listen, some even hear, science is necessary, and the fact that financing is still insufficient, is not the failure of Prof. Pifat-Mrzljak, but rather that some have still not heard.

From 1996 Prof. Greta Pifat-Mrzljak was President of the Croatian-Austrian Society (HAD) for the advancement of cultural, scientific and economic relations of the two countries. In this context she arranged, as she was fond of saying, capillary collaboration of the two countries. She organised a meeting in Graz under the title *Croatia is Europe*, in which a large number of Croatian and Austrian scientists, economists and politicians took part. She was also the main organiser of *Scientific Days of RH and RA (Republic of Croatia and the Republic of Austria)*, which, under the organisation of HAD, IRB and the Joanneum Institute in Graz was held on two occasions in Zagreb and once in Graz, during in the interval of two years. The meeting of scientists from Croatia and Austria was intended to facilitate inclusion of our scientists in projects in the European Programme. For this tireless work in 2002 she was awarded the high recognition of the Government of Austria, *Osterreichische Ehrenkreuz für Wissenschaft und Kunst I Klasse*.

Prof. Greta Pifat-Mrzljak was a person of firm beliefs and moral values, a gentle friend and demanding co-worker, and at the same time a person endowed with the particular attitude and marked quality of a leader. She invested great effort in everything she did and was deeply involved in her work. She did not spare herself and expected the same of her co-workers. The contribution of Prof. Pifat-Mrzljak is much more than just the numbers of her comprehensive scientific biography. She directed all her activity to science and youth. She spent the whole of her working life at the Ruđer Bošković Institute and she regarded all her achievements as those of her parent institution. Her desire was for knowledge, ability, diligence and honesty to be the only criteria in Croatia. The many activities of Prof. Pifat-Mrzljak were based on these values. This is the heritage she left us.