Memories and comments on the last 42 years in the Nencki Institute as seen through the eyes of a former director

ABSTRACT

The author describes his 42 years in the Nencki Institute (1976-2018), with special emphasis on people and events that marked the life of the Institute during this time. The article contains some personal memories and comments, starting with author's early research in the Nencki Institute, under communism, years of directorship of the Institute (1991-2002) and, finally, the current time.

BEGINNING

It was in September 1976 that, after finishing master studies in biology at the Warsaw University and being specialized in biochemistry under the supervision of Professor Zbigniew Kaniuga, I applied for an assistant position in the Nencki Institute. After a relatively short interview I was hired to the Laboratory of Professor Lech Wojtczak and thus became associated to the Nencki Institute. Who could have said by then that this will be the most important decision of my scientific life.

In 1976 Professor Lech Wojtczak was already a very well known biochemist with important achievements. His earlier studies concentrated on the fatty acids effects on mitochondrial energetics, including inhibition of ATP/ADP translocation, uncoupling of oxidative phosphorylation, influencing swelling/contraction of mitochondria, as well as influencing production of free radicals [1]. Studies dealt also with effects of fatty acyl-CoA derivatives, as well as with the role of divalent cations on effectiveness of fatty acids on mitochondria. Main collaborators of Professor Lech Wojtczak by then were his wife Anna (although heading a separate laboratory, with Elżbieta Wałajtys and Ewa Lenartowicz as researchers), Halina Załuska, Krystyna Bogucka, Anna Wroniszewska, Józef Zborowski, Jolanta Barańska and the most recent doctoral student, Jerzy Duszyński. In 1976 Jerzy was finishing his PhD and was planning to leave for a postdoctoral training in the USA, hence I was lucky to apply for assistantship at that moment when Professor Wojtczak was looking for a new doctoral student to replace Jerzy Duszyński in the Lab.

To say that I was extremely happy to land in the Laboratory of Professor Wojtczak, and therefore in The Nencki Institute of Experimental Biology of the Polish Academy of Sciences, is like to say nothing. The Institute appeared as "the Mecca" of science to students of biology, although any detailed knowledge about it was in fact lacking. I started to learn about the Nencki Institute only from the inside, and first and foremost was surprised how complex and heterogeneous it really was.

In 1976 there was still a very vivid memory of the charismatic former director, and a visionary neurophysiologist, Professor Jerzy Konorski, who passed away in 1973. A group of his closed collaborators was going strong in continuing his ideas, and Department of Neurophysiology, including also top specialists in psychology, behavior and neurochemistry, was forming a mainstream of Institute's activities. Some of the towering figures of this branch of the Nencki Institute included Professors Kazimierz Zieliński (by then the Director of the Nencki Institute), Stella Niemierko (Deputy Director for Scientific Matters, who was for some time in the Department of Biochemistry of Muscles and the Nervous System, but moved to Neurophysiology in 1977), Boguslaw Żernicki (Head of Neurophysiology Department), Liliana Lubińska, Remigiusz Tarnecki, Wanda Budohoska, Elżbieta Fonberg, Jerzy Chmurzyński, Barbara Oderfeld-Nowak, Anna Kosmal or Teresa Górska, and a group of younger talented followers like Andrzej Wróbel, Pawel Jastreboff, Jolanta Skangiel-Kramska, Jolanta Zagrodzka-Szmagalska, Anna Grabowska, Małgorzata Kossut, Renard Korczyński, Julita

Professor Maciej Nałęcz

Maciej J. Nałęcz✉

Nencki Institute of Experimental Biology PAS, Warszawa, Poland

✉ Nencki Institute of Experimental Biology PAS, 3 Pasteura St., 02-093 Warszawa; e-mail: m.nalecz@nencki.gov.pl, tel.: 605 488 275

Received: July 16, 2018
Accepted: July 17, 2018

Key words: comments, history, memories, Nencki Institute

Abbreviations: FEBS – Federation of European Biochemical Societies; IIMCB – International Institute of Molecular and Cell Biology in Warsaw; KBN – State Committee for Scientific Research (in Polish: Komitet Badań Naukowych); MAB – International Sciences Agenda (in Polish: Międzynarodowa Agenda Badawcza), special program of the Foundation for Polish Science; MCBN – Molecular and Cell Biology Network of UNESCO; SMM – School of Molecular Medicine; UNESCO – United Nations Educational, Scientific and Cultural Organization

Czarkowska-Bauch, Krzysztof Turlejski, Andrzej Michalski, Tomasz Werka, Stefan Kasicki or Elżbieta Szeląg. Later the Department was further enlarged by a group of newly hired assistants like Ewa J. Godzińska, Małgorzata Węsierska, Maciej Stasiak, Henryk Majczyński, Pawel Boguszewski, Marek Bekisz, Ruzanna Dzawadian, Julita Korczyńska, Wioletta Waleszczyk, Anna Nowicka or Anna Szczuka, among others. In 1986 the Department was strengthened by the presence of Leszek Kaczmarek, who joined the Nencki Institute after coming back from a post-doctoral stay in the Temple University in Philadelphia, USA, and soon became one of the "scientific rising stars" of the Institute.

While neurophysiology was the biggest department of the Institute, the three others were as strong, with unique scientific personalities well recognized in Poland, and internationally.

The Department of Biochemistry of Muscles and the Nervous System (later called "of Muscles Biochemistry") was headed by the charismatic Professor Witold Drabikowski, surrounded by a group of "strong ladies", Professors Renata Dąbrowska, Hanna Strzelecka-Gołaszewska, Gabriela Sarzała-Drabikowska, and Irena Kąkol, supported by a group of researchers as, e.g., Barbara Baryłko, Marek Michalak, Zenon Grabarek, Krystyna Kassman, Maja Pilarska, Piotr Zimniak, Ewa Nowak-Olszewska, Edward Czuryło, Barbara Pliszka or Anna Jakubiec-Puka. The Department was also strengthened by a group of recently hired young assistants as, e.g., Jacek Kuźnicki, Bożena Korczak, Hanna Brzeska or Dariusz Stępkowski, followed, a bit later, by, e.g., Sławomir Pikuła, Antoni Wrzosek, Jolanta Rędowicz, Robert Makuch, Anna Filipek, Wiesława Leśniak or Anna Moczarska.

The Department of Cell Biology, following tradition of research established in the Institute by Professor Jan Dembowski (Director of the Nencki Institute between 1947 and 1961), was concentrating its research on *protozoa* and also grouped a team of well-known researchers. The Department was headed by Professor Stanislaw Dryl and among its professors were Aleksandra Przełęcka, Marek Doroszewski, Leszek Kuźnicki and Andrzej Grębecki, supported by a group of younger talented biologists as Maria Jerka-Dziadosz, Andrzej Sobota, Elżbieta Wyroba, Jerzy Sikora , Lucyna Grębecka, Ewa Mikołajczyk, Barbara Hrebenda, Michał Opas, Zbigniew Baranowski or Stanislaw Fabczak. There was also a group of newly hired assistants like, among others, Andrzej Kubalski, Anna Wasik, and, a bit later, Katarzyna Kwiatkowska and Paweł Pomorski.

The Department of Cellular Biochemistry, to which I belonged, was headed by Professor Zofia Zielińska, and contained laboratories of Professors Lech Wojtczak, Anna B. Wojtczak and Zofia Zielińska (later of Barbara Grzelakowska-Sztabert). A group of senior researchers in the department was composed, among others, of doctors Wanda Chmurzyńska, Małgorzata Manteuffel-Cymborowska, Małgorzata Balińska, Wojciech Rode, Ewa Lenartowicz, Elżbieta Wałajtys and a group of collaborators of Professor Lech Wojtczak listed earlier. Also here there were newly hired assistants as myself, Małgorzata Jastreboff, Jolanta Dzik, Ewa Sikora, Anna Kiełducka, Konrad Famulski, Małgorzata Wilk, Małgorzata Wojtala, and others. My wife Katarzyna, who started her work in 1976 in the Institute of Biochemistry and Biophysics of the Polish Academy of Sciences, in the group of Professor Zofia Lassota, unfortunately developed a strong allergy towards phenol, continuously used in that lab, and was advised by doctors to change work. I turned to Professor Lech Wojtczal for help and from 1977 Katarzyna became an assistant in the Laboratory of Professor Anna B. Wojtczak, for which we were both extremely grateful to our bosses. By that time the Department of Cellular Biochemistry was still hosting the Nestor of the Nencki Institute, and twice its director, in the years 1945-47 and 1961-67, Professor Włodzimierz Niemierko. Professor Niemierko was a tutor of virtually all Institute's biochemists active after the Second World War, including Professors Witold Drabikowski and Lech Wojtczak. By the time I met him he was already long retired, of course, but still coming every day to his office, interested in research, discussing with his former students, and writing articles. I remember his nice smile and sharp glance from behind thick glasses, as well as his exceptional kindness, and good manners. Every morning it was Professor Niemierko who was always first to greet all ladies he met at the corridor, including young assistants, and was doing so on the way seen only in the prewar movies, with an elegant bow. My wife was absolutely charmed by him, and was giving me his example to follow, even years after Professor Niemierko has passed away. But I am not sure I was able to fulfill the challenge.

In 1976 each department was also having a secretariat, responsible for organizing all aspects of daily life of the unit, as well as controlling presence at work. The secretary of our department, Ms Maria Michałowicz, was definitely more important in the eyes of a young assistant than the eminent Polish biochemist and formal head of the Department, Professor Zofia Zielińska. The latter, by the way, was also the President of the Polish Biochemical Society, and the Editor in Chief of "Postępy Biochemii", a true leading figure, but it was Ms Michałowicz who was distributing marmalade to staff at a time when shelves in Polish shops were empty… Those who do not remember the time of the Polish economic crisis induced by gigantic foreign debt accumulated in the 1970s may not understand what I am describing. In fact, due to lack of goods Poland operated on a system of "bons", introduced in 1976, originally for sugar, but then enlarged to meat and virtually all other articles. At this difficult time trade unions were organizing actions of additional distribution of some goods in factories and state institutions, hence this marmalade in the Nencki Institute. Bons were finally abolished in 1986.

One element in the Nencki Institute was well visible at the time of 1970s that influenced the staff, the way of thinking, and the way of behaving - attitude to the politically arranged burst of anti-Semitic actions in 1968, and a tragedy of expelling many Poles of Jewish origin from Poland as a result. When I came in 1976 all this was relatively fresh, and talking about Colleagues who had to leave the Institute, and Poland, was still common. Also, it was a matter of principle not to lose contact with them, and to keep them members of the unofficial Nencki Alumni. This was such a strong feeling

that even a young assistant, whom I was by then, knew all names, and followed on many foreign successes in research of former colleagues. It was therefore normal that when I became a Director in finally free Poland, and had to organize the 75th Anniversary of the Institute in 1993, my main ambition was to invite to the Institute all those who had to leave in 1968, and they almost all came! It was one of the most non-forgettable moments of my directorship when we had this "Evening of Memories" at the Anniversary, with tears, smiles and kisses. Wonderful moment! The movie made during this Anniversary of 1993 is kept in the Institute's Archives as a precious witness of history since many of our Guests of Honor from this event were of advanced age and were visiting Poland for the last time on that occasion. But I am happy we still managed to have them with us. It was by then that I promised to organize the Nencki Foundation, something that was finally fulfilled by my successors, as we believed such a body could offer an easy membership to the "Nencki Diaspora" spread all over the world.

RESEARCH

Everything I learned in research I owe to Professor Lech Wojtczak, who is not only a visionary scientist with great ideas, but also a passionate experimentator, and teacher. Working under his supervision meant mainly to do experiments together with him, from A to Z, i.e. to be corrected at every step when a mistake was possible, and thus to learn much faster by experience.

The topic of my PhD thesis was a new concept of Professor Wojtczak, stemming from his earlier studies on effects of divalent cations, fatty acids and detergents on translocation of adenine nucleotides in mitochondria. The working hypothesis assumed that since majority of substrates of reactions catalyzed by membrane-bound systems is ionized (i.e. charged), changes in the surface charge of membranes introduced e.g. by divalent cations or detergents, may influence enzymatic activity through changes in local concentration of substrates in the membrane vicinity. Further, the phenomenon should follow a general Boltzman's distribution of charged substances close to the membrane, and should change the K_m, and not the V_{max}, of the catalyzed reaction.

Already first experiments showed that, indeed, surface charge of biological membranes may strongly influence the activity of membrane-bound enzymes and transport systems. Within few years we were able to publish a comprehensive set of papers (see [2-6]) confirming the working hypothesis, which were met with high interest. In order to modulate the surface potential of membranes we used small amounts of charged detergents [3], phosphorylation of membrane proteins (a paper with crucial participation of Konrad Famulski, specialist in phosphorylation [4]), or changed phospholipid composition (paper with crucial participation of Józef Zborowski, specialist in phospholipids [5]). We also showed that formation of megamitochondria may be due to a partial neutralization of their surface charge (paper with crucial participation of Anna Wroniszewska, a microscopist [6]). All this led to my PhD thesis, which I defended in June 1981.

The first post-doctoral training (1981-1985) I spent in Switzerland, at the University of Bern, in the Lab of Angelo Azzi, first on regulation of the b-c1 complex of the mitochondrial respiratory chain, and later on mitochondrial metabolites translocators (or anion carriers) of the inner mitochondrial membrane. The latter topic was initiated by me in Angelo's Lab, and the boss allowed me to take it with me when leaving back to Poland. Therefore, I asked Professor Lech Wojtczak whether he would agree that I start a new line of research in his Laboratory upon return, i.e. studies on mitochondrial anion carriers. Professor Wojtczak was really fantastic at that important moment in my life – not only that he agreed to my proposal, but he also assigned a young PhD student, Adam Szewczyk, recently hired to the laboratory, to be my direct collaborator.

A set of papers on mitochondrial carriers, e.g. [7-9], combined with my earlier publications on structure and function of the mitochondrial b-c1 complex, e.g. [10-15], formed the main body of my habilitation work, defended in 1987 in the Nencki Institute. This allowed me to become associate professor and official supervisor of Adam Szewczyk's PhD thesis. I also became head of a newly formed Laboratory of Scientific Equipment (a facility unit within the Institute), and a Deputy Director of the Nencki Institute for General Matters. Scientifically, however, I still considered myself a member of Lech Wojtczak's group and closely collaborated with Lech, who was co-authoring many of the papers published by us those days. I also hired new PhD students to work under my supervision, as Brygida Zambrowicz and Hanna Poddana. Our days in the Institute were extremely busy with experiments and discussions, interrupted however for matches in "Flipper" on Commodore 64 computer that I brought from Switzerland (as the only available by then text editor station), with Adam Szewczyk, Konrad Famulski, Sławomir Pikuła, Antoni Wrzosek and Michał Wrotek (girls were not interested to play). In my memory years 1986-1990 were possibly the nicest I spent in the Institute, with not much administration yet, with very intensive and successful research, and in a very scientific, but also easy-going atmosphere among friends and collaborators.

The success of research on mitochondrial carriers was bringing many invitations to conferences and finally led to the proposal that we should organize an international conference on this topic in Poland. The program has been formulated between the four main organizers: Angelo Azzi, Katarzyna and Maciej Nałęcz, and Lech Wojtczak, in collaboration with Pierre V. Vignais (Grenoble) and Attila Fonyo (Budapest). The International Conference on "Anion Carriers of Mitochondrial Membranes" was held on 5-9 July 1988 in Zakopane, Poland, under the auspices of the Nencki Institute, and was extremely successful. We managed to bring together practically all the scientists working in this field around the world, and level of lectures was so high that Springer proposed to publish a book with full texts of all presentations, which we finally edited [16]. The conference also gave us an opportunity to remind the name of the Institute to the international community after few years of relative isolation due to the "martial law" ("stan wojenny" in Polish, introduced by General Jaruzelski in 1981). The con-

ference was also an unforgettable experience to the group of local organizers, meaning me and my collaborators from the lab, but including as well the Administrative Director of the Nencki Institute, Dr. Zbigniew Przygoda, and his staff. We all got to know each other very well, and appreciate the common work, which was very helpful three years after, when I became Director of the Institute. For me it was also important that my two bosses, Lech Wojtczak and Angelo Azzi, were so happy to collaborate on the conference, and evidently enjoyed its results.

RESEARCH IN THE NENCKI INSTITUTE IN YEARS 1976-1989, I.E. UNDER COMMUNISM

Younger generation of researchers cannot imagine how it was under communism, and possibly sees those fortunately passed days as a synonym of continuous oppression. This is not fully true. For many reasons research under communism was different, but in some aspects even easier than it is now, at least as far as I may judge it, i.e. starting in 1976.

When I was hired by Professor Lech Wojtczak, the world seemed fully open. Already in 1977 Professor proposed that we go together to an important Bioenergetics Conference in the Greek Island of Spetsai. The conference was being held at the beginning of July, while on the 4th of June 1977 we had our marriage with Katarzyna. Hence I asked Professor Wojtczak whether I could bring my newlywed wife to Spetsai, as a part of our honeymoon, and Professor immediately agreed. It was a crazy, but also lovely adventure. Katarzyna and I drove from Poland with our old "VW Beetle" to Athens, picked up Lech at the airport, drove down the Peloponnese where we left the car, and with a ferry reached the Island of Spetsai. The conference was great, and allowed us to meet many luminaries of mitochondrial biochemistry of those days, including Professors Bill Slater, Ernesto Carafoli, Sergio Papa, Ferdinando Palmieri. Lars Ernester, Atttila Fonyo, Pierre V. Vignais, Marten Wikstrom, Lester Packer, Martin Klingenberg, and others. Possibly the most important for me was the first meeting with Angelo Azzi at this conference, which formed a special link between us that lasts till today. After the conference we embarked the car again and drove with Professor Wojtczak for one more week around Greece. The movie I made from this trip is kept at home on a super 8 film under the title "Our Honeymoon with the Boss".

In 1978 Lech sent me to the FEBS Advanced Course organized by Professor Ernesto Carafoli in Zurich (where, again, Angelo Azzi was one of the lecturers, so I had a chance to interact with him for much longer) and then to a Bioenergetics Conference in Gdańsk (organized by Professor Stefan Angielski), where Professor Sergio Papa was the guest of honor. Further, in 1979, I was taken by Lech to Mexico, to the Laboratory of Professor Armando Gomez-Puyou, where for a month we were doing experiments on the effect of calcium on mitochondrial swelling, in the presence of Professor Ernesto Carafoli, who joined the group for few days. It was all part of the teaching process that Professor Lech Wojtczak offered to me as my supervisor, and for which I am eternally grateful. And all this happened under communism, which is now being projected as a system that isolated us completely from the world… It was not really true in the Nencki Institute, but my nostalgic comment may also be related to the fact that by then I was still "young and beautiful", so it should be taken with caution.

The Nencki Institute under communism was of course much poorer than it is today, as was the whole country. But communists were having a strange respect to science, and – at least in experimental sciences – there was no feeling of political supervision. Almost nobody in the Institute was member of the communist party, while almost everybody joined Solidarity movement in the 1980s, what shows that the Institute was, in fact, "a bastion of the opposition". There was, of course, a communist party unit in the Institute, but tiny, composed of 4 or 5 members (including Professor Kazimierz Zieliński, by then the Director), and with Wojciech Rode as its local chair, which was giving opinions about everybody, especially when foreign trips were considered. But in the years of 1970s I never heard of any problems stemming from this group. I was told that the situation dramatically changed with the introduction of the "martial law", but I did not experience it personally, being already abroad for a post-doctoral training.

The most difficult part of performing research under communism was to acquire scientific equipment, and specialized chemicals. The Nencki Institute had a large technical workshop, working on request from scientists, and able to do miracles, e.g. to produce complicated scientific glassware and small laboratory equipment, e.g. units for gel electrophoresis, thermostats, shakers, stirrers and even simple photometers. And it was amazing how well this equipment worked. Our colleagues in the Department of Neurophysiology, whose main technique was often electrophysiology, were constructing their own research units, complicated and looking like coming from a space station. I remember visiting the experimental room of Professor Remigiusz Tarnecki, which was full of oscilloscopes, power supplies, wires, lamps and printers surrounding a small table with a home-made stereotactic apparatus and small electrodes to be placed in the brain of an experimental animal. I was impressed. But the Institute was also getting a yearly state donation in foreign currency dedicated to purchasing of bigger equipment as ultracentrifuges, microscopes, advanced spectrophotometers, etc. This must have been quite substantial since the Institute was having almost everything needed to run advanced research. Some simpler equipment, like preparatory centrifuges "Janetzky", or Zeiss photometers, were easier to get as coming from East Germany where no foreign currency was needed, but the big equipment was not numerous, and had to be shared. Each machine was having its responsible "guardian", and there were long waiting lists to use each centrifuge or spectrophotometer, what required very careful planning of experiments (what I, actually, found very useful, it was inducing efficiency). Apart of simple chemicals produced in Poland or other eastern block countries, which were available with no limit, all other specialized chemicals had to be shared, and a common practice was to ask our foreign collaborators to supplement us with small amounts of specific reagents. Also, everybody coming back from a foreign visit was having a suitcase full of chemicals necessary to run experiments during next months. A

letter to Polish Customs Office explaining why a person is carrying these chemicals was a common text signed by the Director as one of the most frequent correspondence of the Institute. Actually, the customs hardly ever were giving troubles, and all reagents were usually safely landing in the labs.

It is clear that in a system as described the most important decision of a Director was how to split the foreign currency, and what to buy as the big equipment in a given year. His advisory body, the Equipment Commission, had to negotiate between various departments and research groups for weeks and months trying to reach a consensus, which was not easy in our heterogeneous structure

There were no grants under communisms, and research was financed directly by the state. This could have caused political pressure, and possibly it was true in social sciences. In hard basic sciences, however, the freedom of research was quite large, and the system was allowing talented individuals to exercise their talent with no limit. There would be no scientific school of Dembowski, Konorski, Drabikowski or Wojtczak without this, neither scientific publications in top journals would have been possible. And the Nencki Institute staff had several publications in *Nature, Science* or most respected specialized journals, published "under communism" (see e.g. [17-22]). Further, introduction of the central state scientific priority programs (CPBR) in Poland during the 1970s gave the Institute a chance of being a coordinator of biological research on the whole country level. This allowed for close ties and collaboration with many research centers in Poland, and a yearly conference of the "priority program" was grouping top Polish specialists in our Institute, for vivid discussions. Sometimes I have an impression that this spirit of collaboration was lost in political changes that ended communism, and that the introduction of grants system, despite its very positive stimulatory effect on individual researchers, introduced strong competition that may disturb collaboration. But this is how science is done in the world, and it is clear that Poland had to join the club under a new political system. In general, communism was an authoritarian and abusive system and, fortunately, belongs already to history. But it is worth to remember that talented and honest people were always born, even under communism, and they tried to make the best from their life. Research in the Nencki Institute was giving them such a chance, and could even be very successful.

Interestingly, my own observation of Polish politics from the later years, already after collapse of communism, tells me that there were always better days for science with the leftist governments, and much worse with the rightists. Communists were also more prone to understand the need of basic sciences to develop innovations than it is usually the case of the rightist politicians. I wonder where it comes from. It seems to me that the "cult of money" overwhelmingly present in liberal and right-wing programs makes spending on basic research appearing illogical and unnecessary. Why one should invest for years in something that may never bring any return, while investing in "applications" appears logical and bringing quick benefits. This is a dangerous and short-sighted thinking. Innovation may appear only if there is a novel scientific discovery behind it, and – as an old saying has it – there is no applied science without science to apply. I was spending my 15 years in UNESCO trying to convince many governments of developing countries about exactly this, with some successes [23]. But I never imagined that after coming back to my own country I will see exactly the same problem. Even worse, I see politicians who do not want to listen…

TOWARDS DIRECTORSHIP OF THE NENCKI INSTITUTE (1991-2002)

At the beginning of 1990 we, Katarzyna and I, decided to accept another invitation from Angelo Azzi to work again in Bern, and we left to Switzerland. Originally the invitation was for two years. We started a new project on metabolism and physiological role of vitamin E [24], and it seemed that it will be, again, a very interesting scientific stay. However, everything has changed when several eminent Colleagues from the Nencki Institute, including Professor Renata Dąbrowska, wrote to me that the position of the Director of the Institute will be soon open for applications, and that they ask me to very seriously consider a possibility of applying…

Despite a mild opposition from my wife, and a violent opposition from my daughter, I decided to put my name into the competition, since I was sure I do not risk much. I could not imagine that I could be elected, especially against Jerzy Duszyński, who was the other candidate. Possibly Professor Lech Wojtczak, personally never interested in administration, must have had a strange feeling when he learned that his two former students compete for the directorship of the Institute… And he did not know yet that a third student he hired, Adam Szewczyk, will also become a Director, after me and Jerzy. Evidently, there must have been a strange virus in the lab.

In 1990 Poland was no longer a communist country, but it was still lacking new comprehensive legislation, and rules, including the rule of nominating directors of institutes of the Polish Academy of Sciences. Hence, within the Academy it has been decided by an administrative decision that selection of new directors of Academy's institutes will be done though an election by the Scientific Council of the institute at its plenary session, followed by the nomination from the President of the Academy of the candidate who got a simple majority of votes. The term of a directorship was decided to be three years, renewable, with no limit of number of terms.

I still wonder how it happened that I won this election in 1990 against Jerzy Duszyński, with convincing majority. Jerzy was in place while I was working abroad, he was older and thus better known to the Scientific Council, and he made his name as a leader of the Institute's Solidarity movement before, and throughout, the "martial law" years. But it happened, and I landed in a new reality of my life, obliged to abruptly end my stay in Switzerland.

I started my first term at the beginning of 1991. With the office of a director, the Institute has offered also laboratory space (the former laboratory of Professor Gabriela Sarzała-

Drabikowska) and two research positions, what allowed me to establish my new lab of "Transport Processes in Biomembranes", later joined also by my wife Katarzyna. Many people passed through this lab in the 1990s, and over 40 papers in peer-reviewed journals were published. The latter was mainly due to hard work and wise supervision of younger staff offered by my two vital senior collaborators, Katarzyna, and my first PhD student, later post-doc and associate professor, Adam Szewczyk.

The time was difficult. Whole Poland, and Polish science in particular, required a deep reform after years of communism. Financial resources were limited, and lack of experience of modern management was quite general since many completely new people took important positions in the country, very often being exposed for the first time to governmental work. In this respect my election, which normally would appear quite risky (I was only 38 when elected, and not experienced in administration), could have been considered typical for the time. In addition, I knew well the Western research system. It soon became apparent that my "new face" to the Nencki Institute was very helpful in establishing good working relations with the new decision makers. In particular within the State Committee for Scientific Research (KBN), a newly established body to finance and coordinate scientific activities. I was able to have a daily contact with its first Chair, wise and enthusiastic Professor Witold Karczewski from the Center of Experimental Medicine of the Academy, and his Deputy, a physicist, dr Jan Krzysztof Frąckowiak. Professor Karczewski invited me to some advisory bodies that worked on various scenarios of restructuring of Polish science, where I was able to interact, among others, with a group of American policy makers especially coming from the USA to help KBN, with dr John Boright of the National Academy of Sciences of the USA as the Chief Adviser. It was very interesting to participate in their discussions, and to add my own observations on possible actions to be taken. I did not know yet that my contact with John Boright is going to last for many years to come, including my UNESCO years, when I closely collaborated with him on establishing new science polity guidelines for Latin America and the Caribbean Region. It was on advice of John Boright that KBN was invited, as an observer, to participate in the German-American Academic Council meetings, a very interesting body coordinating scientific collaboration between Germany and the USA, in order to allow us to witness the Western bilateral science policy "in the making". Professor Karczewski nominated three Polish scientists to represent KBN at these meetings, and I had an honor to be one of them, together with Professor Łukasz Turski of the University of Warsaw, and Professor Marian Truszczyński of the State Institute of Veterinary Sciences in Puławy.

One of the first decisions of the KBN was the introduction of the Polish granting system, in 1992, what inevitably meant drastic cuts in statutory financing of research institutions, the main source financing research till then. The Nencki Institute got a decision of a cut of about 30% in its statutory financing, definitely too sever to maintain the existing structure of the Institute. The "young directorship" of the Institute, meaning me and my first deputy during the first term, Professor Jacek Kuźnicki, had no choice but to drastically re-model the structure, and the way of operating, of the Institute. We had to end employment of over 70 people, mainly of technical and administrative staff, to drastically reduce the Institute's workshop, to diminish the central administration and the accounting unit, and to replace the employment of assistants by transferring them to newly established doctoral studies, financed from alternative sources. The most difficult part, however, was to dismiss these 70 people, some of whom I knew well, and appreciated. A very helpful advice came from my second deputy for scientific matters, Professor Krystyna Dec, who was a deputy director already at a time of my predecessor, Professor Kazimierz Zieliński, and who kindly agreed to stay with me for the first term to secure continuity. She advised two things – first, to target mainly those who could ask for earlier retirement, in order to avoid a "group release", which would cost the Institute a fortune in high penalties. Second, she told me to meet all these people and talk to them personally, trying to convince them that their request for an early retirement would be a great help to the Institute. I did exactly what Professor Dec suggested, and had first a general meeting with the staff in the Institute's cantine, in a gloomy atmosphere of explaining the situation, and subsequently a series of individual meetings. I must confess that as much as I was afraid of these talks, they surprised and, actually, charmed me with warmth and feeling of responsibility of almost all my interlocutors. There were also tears, and emotions, understandably, but almost all with whom I spoke agreed to ask for a retirement. By doing this they also gave me a big lesson of humility, and local patriotism, which I must have shown to truly admire, since almost all discussions ended in a very friendly atmosphere. And, the most important, the Institute was saved. But I do not think I would have been able to handle this situation alone, with no advice from much more experienced Krystyna Dec. It also showed that a good team of deputies is vital for a director. I was definitely lucky in these terms through all my directorship years.

The second big danger to the Nencki Institute in 1992 was the growing generation gap produced by many young talented researchers leaving Poland in the years 1980s, and the need to change proportions in the employment towards scientific staff, with diminishing administration and technical assistance. I knew very well, through discussions in KBN and other bodies, that the trend in Poland was inevitably changing towards financing based on the quality of research, and towards a granting system as its basis, which was supposed to replace statutory financing, based on employment. Hence the creation of the PhD studies in the Institute was necessary, what would allow us to attract youngsters in larger number than through assistantship, with a possibility of identifying the best ones as future researchers. At the same time this was not sufficient since motivation of existing research staff to publish more, and better, and to acquire grants, was appearing as important. Therefore in the years 1993-1995 we introduced several "motivation tools", still present in the Institute – publications awards financed depending on the IF of a paper published, numerical comparison of research groups, and individual researchers, to form "lists of quality" that were officially announced, new

rules of internal nominations to leaders of research groups through competitions that, with time, were also opened to external candidates, and limiting tenure positions with enlarging the number of contracts for limited time of employment, renewable upon good performance. All this brought surprisingly good results in a relatively short time – the number of international publications in peer-reviewed journals, and of grants received by the staff, was increasing exponentially every year. The additional income from grants became so important already in 1993 that I was able to use the saved statutory resources to start badly needed renovation of the Institute's buildings, interiors, and – most important – toilets, which were remembering the years of 1950s. The latter was especially necessary before the 75th Anniversary Celebration held in November 1993, to which we invited over 200 foreign guests, and which was held in the Institute's premises…

I was three times re-elected to the directorship of the Nencki Institute, in 1993, 1996, and 1999. Starting from the second term (1994-96) the composition of the directorate became stable, and formed a true team working very well together. After Jacek Kuźnicki left to the USA, my first Deputy for Scientific Matters became Professor Jolanta Skangiel- Kramska, the second Deputy was Professor Jolanta Zagrodzka-Szmagalska, and the Deputy for General Matters Dr Ewa Nowak-Olszewska. Dr. Zbigniew Przygoda was Administrative Director, and Ms. Lucyna Bitkowska, and later Ms. Hanna Michalska, were Main Accountants. I should also add the Chief of Director's Secretariat to this list, Ms. Jolanta Puzio, who completed this fantastic team of collaborators, overwhelmed with work but continuously keeping good spirit, in an atmosphere of trust and friendship. In terms of excellent work for the Institute I need also to mention my close collaborators within the Institute's various units as, e.g., Ms. Barbara Wiąckiewicz, Ms. Bożena Kwaśniewska, Ms. Bożena Michalczuk, Mr. Henryk Warzywoda and Mr. Grzegorz Janusik in the administration, Mr. Jan Bienias, Ms. Maria Gerlach and Ms. Monika Małecka in the Institute's Library, a young photographer hired by me to the Institute, Ms. Anna Mirgos, engineers Zdzisław Pliszka (in biochemistry) and Władysław Zarudzki (in the central technical facility), and others. This team spirit was something exceptional, which has never happened to me earlier, or after. The relatively poor financing of the Institute, and large challenges we had to meet, were inducing this atmosphere of working together for the benefit of all. It was best visible on the occasion of two Anniversaries of the Institute, the 75th in 1993 and the 80th in 1998, which we were organizing virtually alone, without external catering or involvement of a travel office. Ladies from the administration were making sandwiches and drinks, secretaries were buying tickets and reserving hotels, laboratory staff was busy securing the entire logistics, while engineer Władysław Zarudzki was running around with a huge VHS camera making movies to memorize the events. And all this was bringing a large success, what I commented in 1994 [25].

One of the biggest pleasures of my directorship was to see the younger generation of Institute's researchers becoming excellent scientists in their own right. Many of them are current leaders, like Leszek Kaczmarek, Bożena Kamińska-Kaczmarek, Ewa Sikora, Wioletta Waleszczyk, Jolanta Rędowicz, Sławomir Pikuła, Katarzyna Kwiatkowska, Anna Filipek, Anna Nowicka, Katarzyna Piwocka, or, last but not least, Adam Szewczyk, just to name the few. At certain moment they all needed help and support of the Institute, or at least no interference, and it was the task of a director to provide it. The role of a director in such an institution like the Nencki Institute is primarily to serve the community. And possibly the most important is not to disturb, and not to spoil what works well. "Golden new initiatives" come second, and must be carefully analyzed whether they are indeed helpful. Sometimes making a step back, and admitting a mistake, is crucial. To achieve this, the director has to be able to listen, and to accept criticism, which is not easy, but can be learned. I passed through such lessons and somehow survived. For instance, it was quite terrible when a case of scientific fraud has been discovered in the institute, and the person responsible was a biochemist whom I very much liked, and helped, earlier. I had not only to admit my mistake of judgement, but to draw severe conclusions and to expel the person from the Nencki. Fortunately, our memory tends to keep mainly better events at hand. For me, for instance, such was the case of Professor Jolanta Barańska, whom I convinced to open her own laboratory, and who subsequently started a fantastic carrier of a great supervisor, teacher, researcher and important biochemist on the Polish and international scale, all relatively late into her scientific life. But with what enthusiasm and success! I was also strongly supporting Ewa Sikora and Bożena Kamińska-Kaczmarek to become independent, and they both are now eminent leaders of research in their respective fields. The same was true for Jolanta Rędowicz, Sławomir Pikuła and Adam Szewczyk, for instance, but such support is simply what I would expect from a decent manager. There were also further mistakes and failures, of course, but I will not speak about them. They just made me wiser (hopefully).

Position of a director of the Nencki Institute meant also participation in activities of some scientific committees of the Polish Academy of Sciences, as well as in Scientific Councils of other research institutions of the Academy. This allowed for crucial discussions and exchange of information with colleagues from all over Poland. I was a Member of the Committee of Biochemistry and Biophysics, Committee of Neurochemistry and Committee of Cytobiology, and was sitting as member at the Scientific Council of the Institute of Bioorganic Chemistry in Poznań, Institute of Pharmacology in Kraków, Center for Molecular and Macromolecular Studies in Łódź, and Center of Experimental Medicine in Warsaw. This interaction with Polish community was extremely helpful in managerial decisions I had to take, but on personal ground also allowed meeting great personalities, and often establishing close links leading to new scientific collaboration, and to personal friendship. Due to this "travelling through Poland" I became very close with Professors Andrzej Legocki, Jerzy Vetulani, Barbara and Ryszard Przewłocki, Irena Nalepa, Jan Albrecht, Stanisław Przestalski, and many others, with some of whom I am still in close touch despite time that elapsed, and years of separation when I was working in

France. Some, unfortunately, are no longer with us, like Professors Vetulani and Przestalski.

NEW INITIATIVES

During my directorship in the Nencki Institute (1991-2002) there were three new initiatives I would like to mention to complete the picture of this time.

THE POLISH NETWORK
OF CELL AND MOLECULAR BIOLOGY

The first initiative is the creation of the Polish Network of Cell and Molecular Biology of UNESCO and Polish Academy of Sciences, in 1994 [26]. It has been created as a branch of the International Molecular and Cell Biology Network (MCBN) of UNESCO, headed by Angelo Azzi, and the Polish branch has been officially recognized by the President of the Polish Academy, by then Professor Leszek Kuźnicki, as a collaborative project with UNESCO. To start the initiative we received 300'000 US$ from UNESCO, soon supplemented by the KBN with matching funds within a special program "additional tools supporting research". From 1994 to 2001 KBN was granting us the same amount of resources as a yearly support, what allowed for stable planning of activities in form of small research grants to young researches, travel stipends, participation in advanced courses, and covering costs of inviting foreign lecturers to Polish symposia and conferences. The priority applications to the Polish Network required collaborative research between at least two Polish research institutions, as the ambition of the Network was to stimulate integration of the Polish biological community. The headquarters of the Network was the Nencki Institute, and its operation has been coordinated by the two co-chairs, myself and Professor Andrzej Legocki, by then the Director of the Institute of Bioorganic Chemistry of the Polish Academy of Sciences in Poznań. Monitoring the activity, and reviewing of applications, was provided by the Scientific Board of the Network to which belonged eminent researchers from various Polish institutions. Among them were, for instance, Professors Jerzy Vetulani, Alina Taylor, Stanisław Przestalski, Jerzy Kawiak, Wojciech Stec, Leszek Kaczmarek, Andrzej Jerzmanowski, and others. The Network profited also from professional and reliable help and hard work of its Secretary, dr (by then) Jolanta Rędowicz of the Nencki Institute, whom I am extremely grateful for the positive role she played in the success of this initiative. The Network was having its yearly conference, at which a report of all activities was presented and discussed, but also with lectures of eminent scientists, mainly Polish but sometimes also from abroad. This conference - on the initiative of Professor Jerzy Vetulani – was always organized in Kraków, at the Kraków Pedagogical University, by the local organizer Professor Henryk Lach. Professor Vetulani, who argued that it is very important for this University to have this "external wind" blowing in its premises once a year, was an author of our internal name for this yearly conference – it was called "Lachosium", from the name of its main organizer. "Lachosia" were always ending with a great evening in the apartment of Professor Jerzy Vetulani, with fantastic discussions and unforgettable atmosphere, supported by food and drinks provided by Maria Vetulani, an exceptional wife of Jerzy.

THE SCHOOL OF MOLECULAR MEDICINE

The second initiative, still in operation, and with growing importance in enriching Polish scientific community in novel research and training opportunities, was the creation of the School of Molecular Medicine (SMM), in 1997. The original idea of creating a structure that would enable Polish medical doctors to learn molecular biology and acquire knowledge of modern diagnostic and therapeutic tools offered by frontline research was of Professor Barbara Lisowska-Grospierre, a Polish biochemist working in France, who wanted to construct it as a Polish-French initiative. Her discussions in Poland soon gained a group of strong supporters among the best Polish medical doctors and researchers, with some leading figures as Professors Leszek Kaczmarek, Cezary Szczylik, Zbigniew Gaciąg, Andrzej Mackiewicz, Maciej Żylicz, Jacek Malejczyk, myself, and others. The main initial problem was to find resources for the initiative. It soon became clear that it will be easier to establish a structure between interested Polish institutions, each financing a portion of common activity, than to search for special funding allowing international collaboration. As by then director of the Nencki Institute, and one of the initial supporters of the SMM, I decided to lead the notion of signing an agreement establishing SMM between Polish institutions, and after some weeks of heavy discussions, I had a pleasure to sign the document creating the School, originally between the Nencki Institute, and the Medical Academy of Warsaw, represented by its Rector, Professor Andrzej Górski. Now, over 20 years after, it is a great pleasure to see SMM flying high, with already 17 signatories, including two French universities (University Pierre and Marie Curie in Paris, and University of Orleans). SMM gained fame of being an excellent place to be trained and to do the PhD. The recruitment to it is now very competitive, what I know from my wife Katarzyna, who serves as the representative of the Nencki Institute at the Board of SMM, and participates in recruitment's interviews. In fact the Nencki Institute is still one of the pillars of the initiative, especially with Professor Bożena Kaminska-Kaczmarek being the Director of SMM. I truly admire Bożena for her enthusiasm and many talents, in research and its management, that allow her to do many different things at the same time with no harm to any. She is leading her own big research group, getting important grants, organizing international conferences and SMM courses, and she is coordinating the entire School of Molecular Medicine, among other activities. I am proud that I was helpful at the beginning of the SMM, as much as I am proud that I recognized big talents of Bożena early on.

THE INTERNATIONAL INSTITUTE
OF MOLECULAR AND CELL BIOLOGY

The third initiative was the creation of the International Institute of Molecular and Cell Biology (IIMCB) under UNESCO and Polish Academy of Sciences auspices in Warsaw, which with its ups and downs took almost 10 years, between 1990 and 2000, and was occupying my time throughout my directorship of the Nencki Institute. The whole idea came from Angelo Azzi, who in 1990 learned from the Director General of UNESCO Federico Mayor that there might be financial resources available to create a research institution in biology in one of the UNESCO Member States. In 1990 I

was working in Angelo's Lab in Bern, and hence he asked me whether I think Poland could be interested. I was immediately enthusiastically positive, and we started to draft first ideas of a possible future structure, and function, of a new institute. We thought it should be different from anything that existed in Poland till now, less bureaucratic, more focused on quality and first and foremost open to young researchers, before habilitation. Such youngsters, who would be returning from abroad, could start their independent carriers in a new institute much earlier that in "normal institutions" of the country, at the same time earning a competitive salary, to attract the best candidates. This meant that the institute, to be successful, has to be driven by a different set of rules than existing centers, hence that we should aim at a separate law to establish the institute. We formulated these first criteria for the future IIMCB in a short article that I wrote having in mind its possible publication in the "MCBN Newsletter" edited by Angelo, and belonging to the UNESCO Network. But we were hesitant whether such a publication will be helpful, and how to start the real action. And it was by then that I, unexpectedly, was elected the director of the Nencki Institute, what meant that with my new position in Poland I could possibly do much more. Also, it was extremely fortunate that Professor Leszek Kuźnicki was by then holding an important position of Vice President and Scientific Secretary of the Polish Academy of Sciences, and that he was keen to help. I proposed to him to co-author with me the article on the "future institute", and he agreed. The article has been published, after some modifications, under our two names in Angelo's MCBN Newsletter in 1991 [27] and immediately gained attention as an expression of view of the leaders of the Polish Academy of Sciences, and not just of somebody unknown. The idea has also attracted a group of some eminent Polish colleagues, whom I invited to form an "Initializing Group", composed of Professors Leszek Kaczmarek, Ryszard Przewłocki, Michal Witt and Jacek Kuźnicki. We started regular meetings to discuss the aims and structure of a future institute, and to monitor logistics of Polish actions, especially in terms of ongoing legislational attempt. In the meantime Professor Leszek Kuźnicki, from 1993 the President of the Polish Academy of Sciences, helped further to push the idea through the bureaucratic corridors, what together with my contacts in KBN helped gaining support from the State Committee, formally expressed in 1994. This was followed by the support of the Presidium of the Polish Academy of Sciences, and finally led to signing of the International Agreement between Poland and UNESCO "on establishing of an international institute in Warsaw", in 1995, published in the official Legal Journal of the Polish Government. The agreement was signed in Paris, in the office of the Director General of UNESCO Professor Federico Mayor, by himself representing UNESCO, and the Polish Vice Prime Minister Professor Aleksander Łuczak, Chair of the KBN, representing Poland. The photo of this Signing Ceremony became a flagship photo of the IIMCB.

In 1995 we also organized the international conference on "New Frontiers in Cell and Molecular Biology" which officially started scientific activities of the Institute, and which hosted Federico Mayor, Angelo Azzi and many luminaries of science from Poland and all over the world. It was also by then that the Director General of UNESCO, Federico Mayor, visited the Nencki Institute, and met with the staff and PhD students in our lecture room at the second floor. The audience was incredibly impressed with this visit, but less because of the Director General Mayor and much more because of the governmental security service surrounding him, especially when these huge men entered the lecture room with clearly visible pistols and told everybody not to move until our guest of honor will leave. It was a truly unforgettable seminar.

In 1996 I was nominated Head of the Independent Department for Cell and Molecular Biology of the Polish Academy of Sciences, which was the formal beginning of the international institute, and I employed Dr. Zbigniew Przygoda and some people from his administrative staff in the Nencki Institute as part-time employees of the Department. It was crucial to monitor finishing of the future institute's building at Trojdena street, and to start first purchasing of equipment and furniture to offices and the laboratory space. Also, in my mind the future institute had to be closely attached to the Nencki Institute, as a kind of an "international branch", and I liked the idea that people from the Nencki will consider the institute as their own making from the beginning. Ms. Hanna Michalska, the main accountant of the Nencki, became also the main accountant of the new Independent Department, the role she played for several years, even when the true IIMCB already existed.

In 1997 the Polish Parliament finally passed the official bill about the International Institute, which was a true masterpiece of diplomacy, and not at all easy. I was often present at these Parliamentary hearings and was very worried seeing the parliamentarians not convinced what to do with the Institute. There was also a lot of criticism, especially concerning "special salaries". We were very much helped by the Polish Academy of Sciences in that battle. The Director General, Professor Piotr Płoszajski, was almost continuously present, and was giving good answers to all questions. Fortunately we also had Professor Krzysztof Dołowy as a supporter, who was by then the Member of the Parliament on behalf of the "Union of Freedom" party. Finally the bill has been adopted and published in the official Law Journal of the Government. The IIMCB came to life. One may learn more about all this from my articles published those days [28-31].

The new law adopted by the Polish Parliament in 1997 was very similar to what we discussed with Angelo in 1990, and many times after, within the "Initializing Group". In principle the law assumes that the staff will be recruited mostly from young researchers who should be hired for a limited time, extendable upon positive review. The International Advisory Board was put into the law as the main body deciding about the Institute, electing director and extending or not the lab leaders. The special salaries were in, as well as close ties to UNESCO, what was making the institute unique in the Polish landscape. The whole concept worked well as far as hiring young talents was concerned. The IIMCB, in fact, was able to employ truly excellent people, who are still doing great research in the Institute. But this is also why the original idea of rotation was so difficult to execute without a clear statement in the bylaws defin-

ing a maximum number of years one can stay, as it is in EMBL, for instance. We formulated the bylaws too mildly. But there were also examples that worked as originally intended. Professor Agnieszka Chacińska, for instance, was a classic example of how it should have been done – an early strong starting point in excellent research after coming back from abroad, and a later jump into a much higher position of power in a different research institution in Poland. There were also two cases of lab leaders who were not extended due to not fully satisfactory outcome.

The IIMCB is definitely an excellent research unit, with top class researchers, and may be all my criticism is pointless. This is an attitude of Angelo Azzi, who thinks that although we did not manage to create exactly what we wanted, we should be proud of what we got. Recently Angelo managed to convince his personal friend, and a Nobel Prize Winner, Professor Aaron Ciechanover, to become member of the IIMCB Advisory Board to improve the operation of this body. I hope it will work. I have to say also that I see the huge amount of hard work, and dedication, on the part of Jacek Kuźnicki that he has put into developing IIMCB as its director during 17 years. However, I am afraid that in its present form the institute is not safe. It was planned as a small unit because of its special function that was supposed to prevail – an incubator of talents, radiating around Poland. For a normal research institute it is too small to have a critical mass, and therefore stability, similar to the Nencki Institute. It is also too heterogeneous for its size. What makes the Nencki strong, makes IIMCB weak. Further, with a very limited number of research groups, and virtually no rotation, the IIMCB will stagnate, and loose its quality and impact. I was always thinking that at least the umbrella of UNESCO, and thus a unique position within Polish science, will protect the IIMCB. But I now hear that there are plans to move the institute formally to the Academy, and end the flirt with UNESCO. If this would mean ending the Agreement, and throwing the Parliamentary law into a dustbin, it would be a very dangerous move. The future will show, but anyway I wish the IIMCB a safe and successful survival. Creating of this institute will remain in my memory forever as a very challenging and exciting initiative, although finally successful differently than planned. And it would have never happened without the Nencki Institute, which served as an incubator for this newly born institution.

AWARDS AND MEDALS

Every director knows that such a job is difficult, stressing, and not really pleasant. But inevitably it is also related to being awarded from time to time with various awards and medals. Here is a short story of what happened to me due to my directorship, in the Nencki Institute, later in UNESCO, and then after returning to Poland.

In 1996 I was awarded with the Knight Cross of Polonia Restituta medal, and in 1998 I was elected Member of the Polish Academy of Arts and Sciences (PAU). Both distinctions were clearly related to my work towards integration of the Polish biological community at the position of a director of the Nencki Institute, and gave me an honor and pleasure. Subsequently, in 2002 I was elected Member of the European Academy of Arts, Sciences and Humanities in Paris. I also became a recipient of a doctorate *honoris causa*, in 2003, at the University of Artois in France (Lille and Arras), and further, in 2008, I was awarded with the Officer Cross of Polonia Restituta for my role in creation of the IIMCB. But the most important distinction, in my eyes, which came as a true honor, unfortunately also with a lot of work, was my election, in 2001, to Chair of the FEBS Fellowships Committee, with a possibility of helping talented youngsters around Europe. I was holding this post till 2010, twice re-elected (i.e. for a maximum time possible in FEBS) and till now I am getting letters from those whom I was able to help with either long-, or short-term fellowships. It was a lovely activity, which I was running under the address in the Nencki Institute, although I was working for UNESCO. This was possible since I never left the Institute, and all my years in France were under the "leave of absence" from the Nencki, generously granted by subsequent directors. This tremendous work had only one negative side, it was absolutely honorable. The only payment was a good dinner offered by FEBS twice a year, at the meetings of the Committee. It gave me therefore a great satisfaction, and splendor, when I was finally awarded for my years with FEBS, and on the best way possible – the Polish Biochemical Society (PTBioch) elected me its Honorary Member in 2011. Till now I knew personally only one Honorary Member of the PTBioch, and it was Professor Lech Wojtczak. To get the same distinction from the community, 35 years after being hired by Lech to become a biochemist, was something absolutely exceptional.

After coming back from France, in March 2016, I was offered my previous full professor's position in the Nencki by the Director, Professor Adam Szewczyk, and I took it with high gratefulness. Soon after, in 2017, Professor Jerzy Duszyński, the current President of the Polish Academy of Sciences, expressed the wish of seeing me. It turned out that I was awarded another medal, my last till now. This time it was "The Medal of the Polish Academy of Sciences for particular achievements in the field of Polish and international science related to the social role of science". Well, I thought, with such a medal it is possibly time to retire. But I was very grateful, of course.

PERIOD OF UNESCO

In September 2001 I was informed that I was selected within an international competition, to which I applied, to the post of one of the principal directors in UNESCO in Paris, director of the Department of Basic and Engineering Sciences. I was thrilled. I had still 2 years to go as a director of the Nencki Institute within my fourth term, but I felt that directors should rotate. It is not healthy to keep the same position for too long, and I had to decide what to do next. UNESCO came as a possible solution. However, when I asked the President of the Academy, Professor Mirosław Mossakowski, to allow me to go to Paris, his initial reaction was negative. We had two lengthy meetings, at which I realized that he was coming from an "old school", according to which one should be a director for as long as possible. Finally he agreed to let me accept the offer from UNESCO, but requested that I temporarily stay the Director of the Nencki Institute, on leave of absence, and he will nominate an in-

terim. That is why in all papers I was formally a director until the end of 2002, and Professor Jerzy Duszyński served first as an interim director in the Nencki Institute. I formally resigned in December 2002, in a letter to the President of the Polish Academy of Sciences.

My almost 15 years with UNESCO, till retirement at the age of 63 in 2016, were fascinating and full of stories that I will once describe, but which are beyond the scope of the present article. I may just comment that I was coming every year to the Nencki Institute, observing changes, first during the time of Jerzy, and later the time of Adam. In general, I am not pleased with the lack of true reform of Polish science after the fall of communism, and the criticism I expressed in the article written in 2002 [32] is in large part still valid. But as far as the Nencki Institute is concerned, I was very much impressed by how efficient the Institute was to acquire grants, both Polish and international, and how magnificently it was able to profit from Poland's participation in the EU. Big investments in infrastructure, large scientific equipment and new laboratory space were done at the right time, and on the right way. The Institute was running new scientific networks, was in the middle of life of the Polish biological research, was coordinating many Polish and international initiatives, and getting prestigious grants. Further, it was an excellent idea to form the Center of Neurobiology within the newly constructed space, and to embark on biological imaging as the new priority of the Nencki Institute, which had such a great tradition in all kinds of microscopy techniques for years. It was a pleasure to see Adam Szewczyk developing to such a good director from a young PhD student I still remember. Adam also managed to recuperate the Hydrobiological Station in Mikołajki that once belonged to the Nencki Institute, against all odds. The PhD studies that I started became so numerous that one sees only young faces on our corridors. The only criticism that I might have about the years when I was absent concerns the new toilets. I still think that "mine" were better, with more space, and being generally more friendly to users. At least the light was not switching off suddenly at the worse moment, and nobody was able to look into the toilet from the outside…

THE CURRENT TIME

There are exciting new prospects for the Institute, especially with its strong attachment to EMBL worked out by Leszek Kaczmarek, and a prospect of creating of a new International Science Agenda (in Polish "MAB") within the Institute, by Professors Leszek Kaczmarek and Ewelina Knapska. The Nencki also got a new energetic Director, Professor Agnieszka Dobrzyń, the first lady ever at this post, fully dedicated to lead the whole institution to further successes. The current time seems, again, difficult, with a concept of fusing research institutes of the Academy with universities. Let us see what the future will bring, but clearly Professor Agnieszka Dobrzyń, may have some stressful period ahead. In fact, there was never an easy time for the Nencki Institute, and the current is of no exception. When one looks through history, the Institute was either fighting for being established, or fighting for survival, then against perishing, then to be re-established, then not to be dissolved, and again, in circles, to survive, not to be dissolved, etc. We are now somewhere between the survival and being dissolved, or – a big novelty - being absorbed by another body… It was never financed to the extent expected, and always stronger and better than our enemies wished. It was always having a fantastic, dedicated staff, and intelligent, ready to fight, directors. At different times different talents were needed for a good director, but somehow the Institute was always able to settle on a decent choice. **And this lasts already for 100 years! Chapeaux bas!**

I strongly believe that the Nencki Institute will prevail the present, and future, problems. And I wish Professor Agnieszka Dobrzyń to be able to write one day a similar article with her memories, that would follow on failures and successes that happened to be of my witnessing. Directing of a big institute is difficult, but it is easier when one is surrounded by talented and trustful people. Human resources were always a big strength of the Nencki Institute, and it is also true now. Even more important, we have numerous talented young researchers, and a horde of excellent PhD students, which was not the case when I was becoming director. It will be fine.

REFERENCES

1. Wojtczak L (1976) Effect of long-chain fatty acids and acyl-CoA on mitochondrial permeability, L transport, and energy-coupling processes. J Bioenerg Biomembr 8: 293-311
2. Nałęcz MJ, Wojtczak L (1978) Effect of monovalent cations on the inhibition by NAD^+ of NADH oxidation in submitochondrial particles. Biochem Biophys Res Commun 80: 681-689
3. Wojtczak L, Nałęcz MJ (1979) Surface charge of biological membranes as a possible regulator of membrane-bound enzymes. Eur J Biochem 94: 99-107
4. Famulski KS, Nałęcz MJ, Wojtczak L (1979) Effect of the phosphorylation of microsomal proteins on the surface potential and enzyme activities. FEBS Lett 103: 260-264
5. Nałęcz MJ, Zborowski J, Famulski KS, Wojtczak L (1980) Effect of phospholipid composition on the surface potential of liposomes and the activity of enzymes incorporated into liposomes. Eur J Biochem 112: 75-80
6. Nałęcz MJ, Wroniszewska, A, Famulski KS, Wojtczak L (1982) Changes of the mitochondrial surface potential during cuprizone-induced formation of megamitochondria. Eur J Cell Biol 27: 289-295
7. Nałęcz MJ, Broger C, Nałęcz KA, Bolli R, Wojtczak L, Azzi A (1986) Extraction, partial purification and functional reconstitution of two mitochondrial carriers transporting ketoacids: 2-oxoglutarate and pyruvate. FEBS Lett 196: 331-336
8. Szewczyk A, Nałęcz MJ, Broger C, Wojtczak L, Azzi A (1987) Purification by affinity chromatography of the dicarboxylate carrier from bovine heart mitochondria. Biochim Biophys Acta 894: 252-260
9. Szewczyk A, Nałęcz MJ, Wojtczak L (1987) Azido derivatives of dicarboxylic acids for photoaffinity labeling of mitochondrial carriers. J Biochem Biophys Methods 18: 125-134
10. Nałęcz MJ, Casey RP, Azzi A (1983) Effects of N,N'-dicyclohexylcarbodiimide on isolated and reconstituted cytochrome bcl complex from bovine heart mitochondria. Biochim Biophys Acta 724: 75-82
11. Nałęcz MJ, Bolli R, Azzi A. (1984) Molecular conversion between monomeric and dimeric states of the mitochondrial cytochrome bc1 complex: Isolation of active monomers. Archiv Biochem Biophys 236: 619-628
12. Azzi A, Nałęcz MJ (1984) Is dicyclohexylcarbodiimide a probe for proton translocating enzymes? Trends Biochem Sci 9: 513-515
13. Nałęcz MJ, Azzi A. (1985) Functional characterization of the mitochondrial cytochrome bc1 complex: Steady-state kinetics of the monomeric and dimeric forms. Archiv Biochem Biophys 240: 921-931

14. Nałęcz MJ (1985) Is there sufficient experimental evidence to consider the mitochondrial cytochrome bc1 complex a proton pump? Probably no. J Bioenerg Biomembr 18: 21-37
15. Nałęcz MJ, Casey RP, Azzi A (1986) The effect of N,N'-dicyclohexylcarbodiimide (DCCD) on membrane-bound enzymes. Methods Enzymol 125: 86-108
16. Azzi, A, Nałęcz KA, Nałęcz MJ, Wojtczak L Eds (1988) Anion Carriers of Mitochondrial Carriers, ISBN 3-540-50853-8 Springer-Verlag Berlin Heidelberg New York London Paris Tokyo, 390 pages, 147 figures
17. Chmurzyńska W, Wojtczak L (1959) Interaction between thiourea and insect polyphenoloxidase. Nature 184: 1941-1942
18. Lubińska L, Niemierko S, Oderfeld B (1961) Gradient of cholinesterase activity. Nature 189: 122-123
19. Lubińska L, Niemierko S, Oderfeld B, Szwarc L (1962) Decrease of acetylcholinesterase activity along peripheral nerves. Science 135: 368-370
20. Lubińska L, Zelená J (1966) Formation of new sites of acetylcholinesterase activity in denervated muscles of young rats. Nature 210: 39-41
21. Rinaldi RA, Hrebenda B (1975) Oriented thick and thin filaments in Amoeba proteus. J Cell Biol 66: 193-198
22. Rinaldi RA, Opas M (1976) Graphs of contracting glycerinated Amoeba proteus. Nature 260: 525-527
23. Nałęcz MJ (2002) Basic Science – a Lever for Development. The World of Science, Newsletter of The Natural Sciences Sector of UNESCO 4: 17-21
24. Nałęcz KA, Nałęcz MJ, Azzi A (1992) Isolation of tocopherol-binding proteins from the cytosol of smooth muscle A7r5 cells. Eur J Biochem 209: 37-42
25. Nałęcz MJ (1994) Address of the Director of the Nencki Institute of Experimental Biology on the occasion of the 75th Anniversary of the Institute. Acta Neurobiol Exp 54:166
26. Nałęcz MJ (1995) Polska Sieć Biologii Komórkowej i Molekularnej UNESCO/PAN: Struktura i zadania. Wszechświat 96: 215-216
27. Nałęcz MJ, Kuźnicki L (1991) Towards a New International Biological Institute in Warsaw. Netnews of MCBN/UNESCO 1: 12-14
28. Nałęcz MJ (1994) Przyszłość nauki w Polsce. Nauka i Przyszłość 3: 4-6
29. Nałęcz MJ (1994) Biologia molekularne i komórkowa – nauka XXI wieku. Przegląd Akademicki 12: 2-4
30. Nałęcz MJ (1995) Międzynarodowy Instytut Biologii Molekularnej i Komórkowej UNESCO w Warszawie. Wszechświat 96: 212-213
31. Nałęcz MJ (1995) Międzynarodowy Instytut Biologii Molekularnej i Komórkowej UNESCO w Warszawie: Historia, stan aktualny i plany na przyszłość. Nauka 4: 53-56
32. Nałęcz MJ (2002) Scientific research in restructuring countries needs reform: A view from Poland. Science and Society 2/2002: 91-101

Wspomnienia i komentarze z ostatnich 42 lat pracy w Instytucie Nenckiego widzianych oczyma byłego dyrektora

Maciej J. Nałęcz✉

Instytut Biologii Doświadczalnej im. Marcelego Nenckiego PAN, ul. Pasteura 3, 02-093 Warszawa

✉e-mail: m.nalecz@nencki.gov.pl

Słowa kluczowe: historia, Instytut Nenckiego, komentarze, wspomnienia

STRESZCZENIE

Autor opisuje ostatnie 42 lata pracy w Instytucie Nenckiego (1976-2018), ze szczególnym uwzględnieniem ludzi i wydarzeń, które odcisnęły się na życiu Instytutu w tym czasie. Artykuł zawiera osobiste wspomnienia i komentarze Autora, począwszy od wczesnych lat pracy naukowej w Instytucie, jeszcze w okresie komunizmu, lata swojego dyrektorowania Instytutem (1991–2002), aż po czasy współczesne.