## LEGENDS IN UROLOGY

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The human life is precious only when it pursues an ideal. **L. Rebreanu** 

## Passionate about profession

I consider myself a fulfilled person, both professional and in my family life. I was born on April 23, 1949 to a beautiful intellectual family from the picturesque village of Criva, in the northern part of the Republic of Moldova. My father Grigore T nase, and my mother Vera T nase were teachers at the local primary school. My family still keeps my kindergarten photo where I appear at the age of 5 as a "doctor", treating children who "got sick" after eating too much boiled corn. It was just child's play and nobody suspected that in several years the play would become a reality.

In 1961, my family moved from the countryside to Balti, one of the biggest cities in the country, and my parents became teachers at the Pedagogical Institute in Balti. I continued my studies at the Secondary School no. 1, an institution with exceptional teachers and traditions. I graduated high school with a silver medal, missing the gold only because of a lower score in the written test of the Romanian language exam (then called the Moldovan language). Even now my handwriting is less readable, a real doctor's handwriting. In our school one's future profession was traditionally suggested to graduates by their teachers, and it was my professor of physics and mathematics, Aron Faierstein, who implored me to choose Medicine. The school had an impeccable reputation, being highly recognized in the country and abroad and 21 out of 24 of my classmates were admitted in various universities from the country and abroad. Thus, in 1966, after a difficult chemistry exam, I was admitted to the School of General Medicine of the State Institute of Medicine in Chisinau, Moldova (then part of the USSR). Later, I had to temporarily suspend my studies because of my enrolment in the Soviet Army. After the military service, I returned to the university, and in 1976 I graduated cum laude from the Medical School.

## Why urology?

During the graduation exams I was approached by one of the members of the examination board - Mihail Birsan, Associate Professor, then head of the Urology Department, and he suggested choosing urology. This was the turning point that determined me to start my training in urology and Professor Birsan became my mentor. I successfully completed the training program in 1977 and during that same year, the new building was inaugurated as the largest hospital in the country - the Republican Clinical Hospital. The manager of the hospital decided to complete the medical team with young and enthusiastic doctors, thus more than 100 young specialists joined the team during the first 2 years and I was one of them. In addition, I was appointed Chief of the Department of Surgical Nephrology, a new division of the hospital, created to provide highly specialized medical services, including dialysis and kidney transplantation for patients with renal failure. This was the first time when such a young doctor was appointed head of department in a state institution. It was an interesting but also difficult period, with many responsibilities and challenges. I had the opportunity to study and to implement new methods of diagnosis and treatment, most of them being innovative and applied for the first time in our country. I had the chance to work side by side with an amazing team, with dedicated and enthusiastic professionals. With the support of the hospital manager assistant Professor Timofei Mosneaga, named at that time "the people's doctor" and that of my mentor - Assistant Professor Mihail Birsan, we created in 1981 the first Hemodialysis Unit in the country, and then the Hemodialysis and Kidney Transplantation Center, based on the previous Surgical Nephrology Department. This was a new turning point in my career which marked the beginning of a new passion - dialysis and kidney transplantation. I continued to work together with an amazing team, who became in time renowned specialists - Victor Sagatovici, Larisa Zavat, Maria Vizitiu, Nelly Kotulevici, Dumitru Mastac, Victor Reaboi, Arcadie Sapojnicov, Veniamin Hardac and Ghenadie Chiriac.

I had additional training in urology, dialysis and kidney transplantation at the Institute for Scientific Research in Urology, led by the academician Nicolai Lopatkin and at the Institute for Scientific Research in Transplantation and Artificial Organs, led by the academician Valeriu Shumakov, in Moscow, the Russian Federation, and later in specialized centers in Kiev, St. Petersburg, etc.

In parallel with the practical and managerial activity, I was interested in research, and I obtained my PhD degree in 1988, in Kiev, for my work on the "Epidemiology of chronic renal failure and the organization of the specialized medical treatment in end stage kidney disease", coordinated by Professor Eduard Balakirev from the Institute of Transplantation and Artificial Organs, Moscow.

At the beginning of the 1990s new horizons opened for our country after the dissolution of the USSR and I had the opportunity to participate in exchange programs abroad: the first at a clinic in Tel Aviv, Israel, followed by new experiences in the USA, Germany, Belgium, Romania and other countries. Thanks to these experiences I was able to implement several new diagnosis and treatment methods in the field of urology and nephrology, and I was also inspired to continue my research activity.

And again, with the support of my mentor Professor Mihail Birsan and academician Ion Ababii, the rector of the State University of Medicine and Pharmacy Nicolae Testemitanu, I started my academic career as an Assistant Professor at the Department of Urology and Surgical Nephrology. In 1996 I defended my habilitation thesis in medical sciences, this time in Chisinau, in the specialties of urology, transplantation and artificial organs with the topic "Diagnosis of early and late complications of kidney transplantation". At that time, in the Republic of Moldova there were no specialists in the field, that's why the university invited for evaluation several international specialists in the field, from Romania, Russia, Ukraine and Belarus. In 2000 I became Associate Professor, and in 2006 Professor. From 2001 until now, I've been head of the Department of Urology and Surgical Nephrology of the State University of Medicine and Pharmacy Nicolae Testemitanu, Republic of Moldova. I had the opportunity to present our achievement at several local and international congresses, conferences and other scientific events in Scotland, Spain, USA, Germany, UK, Switzerland, France, Greece, Holland, Belgium, Austria, Australia, Turkey, Portugal, Denmark, Canada, Brazil, Italy, Sweden, Czech Republic, Russia, Ukraine, Kazakhstan, Belarus, Uzbekistan, Romania, etc.

We succeeded to organize seven editions of the National Congress of Urology, Dialysis and Kidney Transplantation, with the endorsement of the Society of Urology and Nephrology from the Republic of Moldova, which became a beautiful scientific tradition for the medical community of our country.

I am pleased to look back through this article at the most important achievements of my career in the field of urology, dialysis and kidney transplantation. I was one of the founders of the dialysis service in the Republic of Moldova. In 1981 I became the Chief of the first Hemodialysis Department in the country, at the Republican Clinical Hospital. We performed the first hemosorption (hemocarboperfusion) procedure in Moldova (1981). I contributed to the creation of Hemodialysis and Kidney Transplantation Center and I was member of the medical team who performed the first kidney transplant surgery in the country from a deceased donor in 1982. I was appointed leading specialist in urology, dialysis and kidney transplantation by the Ministry of Health of the Republic of Moldova, thus I contributed to the expansion of dialysis services in the country, by the creation of new regional hemodialysis departments. This work also involved creating the legislative framework for human organs, tissues and cells for transplantation activities. We implemented ultrasound-guided kidney biopsies, including kidney allograft biopsy (1992-1994). In 2001, our team, performed the first kidney transplantation from a living donor (mother-son). During the same year we performed the first kidney sampling from a brain death donor and the first kidney transplant with a kidney from a brain death donor. In 2007 we implemented the semi-continuous outpatient peritoneal dialysis (CAPD) introduced other extracorporeal methods of treatment for renal failure - plasmapheresis, hemofiltration, hemodiafiltration, which are still applied in our country. Our kidney transplantation program has been in continuous development due to international collaboration. I would like to mention the important role of numerous fellowships in Israel, USA, Germany, Belgium,

Russia, Romania, etc., which led to the implementation of new methods for the diagnosis and treatment of the patients in our Dialysis and Kidney Transplantation Center at the Republican Clinical Hospital, including the introduction of cyclosporine, mycophenolate mofetil, and other novel immunosuppressive regimens for kidney transplant recipients.

Another first was the start of endourological procedures (ultrasound guided puncture of renal cysts, ultrasound guided percutaneous nephrostomy, etc) and the application for the first time in our country new plastic surgical techniques for the management of ureteral strictures and ureterovesical junction strictures. In 2015, we managed to inaugurate a new Endourology Department at the Republican Clinical Hospital. In 2012 we relaunched the kidney transplantation program in the Republic of Moldova, including transplantation from both living and deceased donors, with the support of the Council of Europe and the European Commission. This work culminated in a feasibility study for the implementation of a new dialysis service system, which led to the creation of a large dialysis network.

I mentioned earlier my passion for research and I am proud to be the author or co-author for more than 350 scientific papers, including 128 published in international journals.

I should not fail to mention my commitment to the educational process, starting with students, residents, fellows and doctors. I was always the promoter of new advanced forms of training, of interactive methods with emphasis on practical activity. Due to my continuous collaboration with my colleagues around the world and due to an amazing team, we succeeded to maintain the educational process at a high level, according to international standards. Some important steps in this direction were the introduction of the residency program in urology in 2004, which replaced the old form of training by internship, and the residency program in nephrology in 2014, as well as advanced training courses for licensed professionals. I am proud that I coordinated more than 15 doctoral studies and the training of more than 45 specialists who are working now in local and international dialysis centers and many generations of urologists.

I was honored to be President of the Society of Urology of the Republic of Moldova since 2001, and that gave me the possibility to organize several congresses and scientific meetings, with many interesting international personalities, including the Conference of Urology, Dialysis and Kidney Transplantation in the Republic of Moldova (since 1998).

In addition to my practical, teaching and research activities, I had a series of responsibilities, including Chairman of the Specialized Commission in Urology and Hemodialysis of the Ministry of Health, Labor and Social Protection of the Republic of Moldova; Member of the Scientific Council of the Consortium of the Doctoral School in the field of medical sciences of the State University of Medicine and Pharmacy "Nicolae Testemitanu"; Member of the Scientific Seminar in surgery, pediatric surgery, urology and andrology, the Scientific Seminar on transplantation, tissue engineering and cell cultures; Deputy-president of the Methodical Commission for Surgery of the State University of Medicine and Pharmacy "Nicolae Testemitanu"; Member of the General Assembly of the Academy of Sciences of the Republic of Moldova; Member of the Council of Experts of the Ministry of Health, Labor and Social Protection of the Republic of Moldova; Member of the European Association of Urology (UAE); Member of the European Association for Dialysis and Renal Transplantation (ERA-EDTA); Honorary member of the Romanian Associations of Urology and Nephrology

I keep a special place in my soul for all the awards and honors, which are evidence that my entire work in the field of medicine has an impact on the development of the national health system. Some of the most important are the "Order of Labor Glory", the "Order of Honor", the medal "Dimitrie Cantemir" of the Academy of Sciences of the Republic of Moldova, and the "Order of the Republic".

All this could not have been possible without the support of my family: my wife Raisa, who is a gastroenterologist and she is the Head of the Gastroenterology Department of the Republican Clinical Hospital, my son Dorin, who is also a urologist in Germany and a good volleyball player, my youngest son Eugen who is an economist, and 4 grandchildren - Lucy, Alexander, Adrian and Adriana.

With esteem and respect, Professor Adrian Tanase, MD, PhD Department of Urology, Dialysis and Renal Transplantation, USMF Chisinau, Republic of Moldova