”VICTOR BABEŞ” UNIVERSITY OF

MEDICINE AND PHARMACY TIMIŞOARA

DOCTORAL SCHOOL

MEDICINE DOMAIN

CLINICAL STUDIES AND PRECLINICAL RESEARCH IN THE FIELD OF AESTHETIC SURGERY

ABSTRACT

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T i m i ş o a r a

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My name is Petrișor Zorin Crăiniceanu, I was born in Timișoara in 1967. In 1986 I graduated from the Train High School in Drobeta Turnu Severin and I was admitted to the Faculty of Medicine in 1988.

I was attracted to surgery from the beginning of college. When I started working with Prof. Tiberiu Bratu and I had the opportunity to join his teaching and research team, I was extremely excited and focused my resources and skills in this direction.

I graduated from the Faculty of Medicine in 1994 and started my doctoral studies in 1997. My thesis "Microsurgery in language trauma reconstruction - clinical and experimental research and clinical activity" was presented in 2005 under the scientific coordination of Prof. Dr. Marius Teodorescu and was confirmed by the Order of the Minister of Education no.4871/07.08.2006

This paper, the habilitation thesis, is divided according to academic standards into four parts: (i) the first part is dedicated to scientific achievements, (ii) the second part is dedicated to academic achievements, (iii) the third part deals with professional activity and (iv) the fourth part is dedicated to the career development plans from a scientific, academic and professional point of view, after which the bibliography that was the basis of the paper and the list of relevant papers of the undersigned are presented.

After completing my doctorate, I started working on various research projects and participated as a collaborator in certain clinical trials.

So far, I have published 22 articles in ISI-listed journals (of which 12 are the main author and 10 are co-authors), numerous articles in BDI indexed journals and abstracts (over 30) and I have participated in various scientific events national and international in the field, both as a guest lecturer and as a researcher, specialist. According to the scientific platform Web of Science, the hirsch index is 6 and the value of the cumulated impact factor is 18,696.

My collaboration is made both with colleagues from the University of Medicine and Pharmacy Timișoara and from the Timișoara County Emergency Clinical Hospital but also with other teams in the field in the country and abroad. I am also a member of various associations, such as: Romanian Association of Plastic Surgeons ACPR, Romanian Society of Aesthetic Surgery - Secretary General, Romanian Society of Reconstructive Microsurgery SRMR, Romanian Society of Hand Surgery SRCM - president, International Society for Plastic, Reconstructive and Aesthetic Surgery ISAPS, International Federation of Societies for Surgery of the Hand IFSSH and World Society for Reconstructive Microsurgery WSRM.

The main research topics addressed are: (i) the importance of markers in critically ill patients, (ii) cosmetic and reconstructive surgery and (iii) malignant skin diseases - preclinical studies.

The first part of the post-doctoral research is dedicated to treating the importance of markers. Therefore, we detailed the study related to critically ill patients with severe burns - redox expression, molecular lesions and inflammatory condition, addressing issues such as: molecular lesions in critically ill patients with severe burns, biomarkers

to assess oxidative stress in patients with burns. and modulation of the oxidative response: models of antioxidant therapy. Next we presented “The use of exosomes as biomarkers for the evaluation and monitoring of patients with critically ill polytrauma with sepsis” by addressing Septicemia - Pathophysiological occurrences, Exosomes - Structural and functional aspects, and the link between them, Septicemia - exosome expression.

Next, I focused on the study of reconstruction surgery with the evaluation of breast reconstruction. The two major types of breast surgery, namely breast augmentation and breast reconstruction, went somewhat in parallel. The sequence of attempts and approaches to breast reconstruction is an oscillating one. At first, due attention was not paid due to the fact that the breast was not considered an organ with a major role in the body, the intervention would have been related to a fad, a desire to look best. Subsequently, serious problems were revealed in patients who underwent breast amputation surgery, namely: significant loss of quality of life in patients who underwent a mastectomy, increased predisposition to the development of mental illness in patients who amputated one or more . both breasts. These aspects led to the recognition of the importance and usefulness of breast reconstruction as urgently as possible after a breast amputation operation, of course dependent on the pathophysiological condition of the patient. The paper presents various cases of breast reconstruction that we have performed. Also in this part we addressed the influence of cognitive patterns on the mixed anxiety-depressive symptoms of breast cancer patients. Another presentation highlights the modern devices used for facial reconstruction. Due to the multitude of anatomical structures involved in its determination, the morphology of the face is one of the most complex representing a challenge for any cosmetic surgeon. Nerve regeneration is another topical issue that is presented in this paper. Based on the topics addressed, the presentation of human conchal cartilage and temporal fascia was used: a evidence-based roadmap from rhinoplasty to an in vivo study and beyond. For reconstructive purposes, plastic surgeons add Conchal cartilage or hybrid grafting cartilage / temporal fascia (DC-F) used for rhinoplasty. The late events accompanying grafting have been elucidated by previous animal experiments, such as mice or rabbits, with tissue specimens harvested two months after implantation. There are completely inexplicable early microscopic and molecular activities that accompany DC-F grafting. Regarding the complex observation of graft survival and its reciprocal relationship with the microenvironment of the chorioallantoic membrane with chicken embryo, a model of chorioallantoic membrane for the chicken embryo has been developed for human graft research.

Another approach to research is dedicated to preclinical studies that treat malignant skin diseases. Therefore, experimental studies for skin carcinoma using UVB radiation, evaluation of murine melnoma by noninvasive methods, use of natural compounds with tissue repair properties (such as olive oil) and other types of compounds are presented. with activity against malignant skin cells.

Following the presentation of the main research directions in the habilitation thesis, the didactic activity is presented where the evolution until now is presented and the published courses for students and the coordinated bachelor's theses are mentioned. Next is approached professional activity that refers to the experience gained in terms of specialized courses and positions occupied over the years.

My conviction is that a university teacher must combine in a balanced proportion the teaching activity with the scientific research activity, without neglecting the general development of the University of which he is part. The didactic activity involves both the transmission of knowledge to students and their preparation for the efficient and constructive use of information, for learning a way of working, a professional attitude, medical ethics and research activity. The individual activity of scientific research aims primarily to find answers to the many questions and problems raised in contemporary medicine, but also to integrate this effort into teamwork, which allows the effective dissemination of both research results and a way of working. professionally, to respect all the rigors of this activity. The institutional development aims to increase the prestige of the Victor Babeș University of Medicine and Pharmacy, in order to consolidate its reputation in the Romanian and international academic world. Although the essential components of scientific, academic and professional careers are closely interconnected, I will present them separately for easy analysis. Specifically, I want to develop a strong link between research and teaching, especially through the development / maintenance of a center of excellence in plastic surgery.

This activity will involve students and residents and will result in the dissemination of studies in ISI-indexed journals, in book chapters and books in national and international publications. These results will be the basis for preparation and participation with projects in various competitions. The actions carried out will implicitly increase the international visibility of our discipline, department and university.