

## **REVIEW**

BY PROF. DR. PETRANKA KANEVA-TROYANOVA, DM, PhD  
AT THE DEPARTMENT OF NUCLEAR MEDICINE, RADIATION THERAPY AND  
MEDICAL ONCOLOGY, FACULTY OF MEDICINE, MEDICAL UNIVERSITY - SOFIA,  
MEMBER OF THE SCIENTIFIC JURY ACCORDING TO ORDER №P-109-69/21.09.2022  
OF THE RECTOR OF THE MEDICAL UNIVERSITY - VARNA

### ***About:***

COMPETITION FOR THE ACADEMIC POSITION OF "PROFESSOR" ON SCIENTIFIC  
SPECIALTY "SKIN AND VENEREAL DISEASES", THE FIELD OF HIGHER  
EDUCATION 7. HEALTH AND SPORTS, PROFESSIONAL FIELD 7.1. MEDICINE,  
FOR THE NEEDS OF THE "MEDICAL COSMETICIAN" EDUCATIONAL SECTOR  
TO MEDICAL COLLEGE - VARNA, ANNOUNCED IN SG No. 59/26.07.2022.

To participate in the competition within the legal deadline, only one candidate  
submitted, documents - Associate Professor ILKO GEORGIEV BAKARDJIEV, md, PhD.

The documents and materials presented by the candidate have been carefully and  
systematically prepared and fully meet the requirements of the Law on the development of the  
academic staff in the Republic of Bulgaria (LDASRB) and the Rules for the development of  
the academic staff in the Medical University (MU) - Varna.

### **I. Brief data on the candidate's career development**

Assoc. Prof. Ilko Bakardjiev, PhD, was born on May 28, 1968, in the city of Varna.

In 1994, he completed higher education in medicine at the Medical University "Prof.  
Dr. Paraskev Stoyanov" city of Varna.

In 1996, he started working as a doctor in the Skin Clinic of the Medical University of  
Varna, and since 2001 he has acquired a clinical specialty "Dermatology and Venereology".

Since 2001, he became a PhD student in full-time education in oncology at the Sofia  
University, Department of Dermatology and Venereology at the Skin Clinic of the  
Aleksandrovska Hospital - Sofia. In 2007, he successfully defended his dissertation on the topic:  
"Modern aspects in the etiology, diagnosis and treatment of non-gonococcal urethritis" and  
obtained the educational and scientific degree "Doctor" in the scientific specialty "Dermatology  
and Venereology".

Since 2000, he has been working as a dermatologist at the Chaika Medical Center,  
Varna, and since 2006 - at the "Medea" Medical Center, Varna.

As of August 2022, he has more than 21 years of total work experience and professional experience in the specialty.

Since 2007, he has been a part-time teacher at the Medical College - Varna, and since 2015 he has been the Head of the "Medical Cosmetologist" Department at the Medical College - Varna.

In 2010, he was awarded the scientific title "Associate Professor" at the Medical College, Medical University "Prof. Dr. Paraskev Stoyanov" - Varna.

Assoc. Prof. Bakardjiev has conducted numerous courses in the country and abroad for specialization with various orientations, as follows:

2003 – Cryotherapy. Skin Clinic, Alexandrovska Hospital, Sofia.

2007 – Theosyal Injection course. Laboratories Theoxane, Geneva.

2007 – Voluma. Laboratoire Corneal Developpement, Paris.

2008 – Surgical CO2 Laser System with MiXto Accessory. Modena, Italy.

2011 – Cryotherapy. Department of "Dermatovenereology and Allergology", Sofia Medical University.

2011 – Dermatoscopy - practical application. Summer Academy "Practical Dermatology and Aesthetic Medicine". Military Medical Academy-Sofia.

2011 – Asclepion Laser Systems. Summer Academy "Practical Dermatology and Aesthetic Medicine". Military Medical Academy-Sofia.

2011 – Insights in Pediatric Allergology, Pneumology and Dermatology. EACCME. Berlin, Germany;

2013 – Pedagogical foundations of academic teaching. SDO, MU-Varna;

2016 – Course: Diolaze, Fractora, Lumecca, Forma/Plus & BodyFX Applications of the InMode System;

2019 - Training on the topic: "Borderline conditions in psychiatry. Skin diseases. Obstetrics and Gynecology". Bulgarian Medical Homeopathic Organization (BMHO), Nessebar.

2019 – Diplôme de GERnéticienne products et methods. Acquis les connaissances nécessaires aux applications de produits GERnétic International et benefite ainsi d' une maîtrise parfaite des traitements visage, main, buste et corp. Genetic Synthesis Laboratories. Béraut, France.

2021 – Introduction to Aromatherapy. Medical University Varna.

After completing the relevant qualification courses, he acquires skills and performs highly specialized diagnostic and treatment procedures (cryotherapy, dermatoscopy, laser therapy and others).

Assoc. Prof. Bakardjiev is a member of a number of Bulgarian and foreign scientific organizations and institutions, such as the College Council of MK-Varna and the Program Council of the "Medical Cosmetologist", MK-Varna.

He participates in a working group for the development of a municipal strategic document for the prevention of HIV/AIDS, according to order No. 2393/03.07.2020 of the Mayor of Varna Municipality. Author of the report "Sexually transmitted diseases among young people", whose data and conclusions are implemented in the rationale and are a major part of the priority and objectives of the strategy.

Assoc. Prof. Bakardjiev is a member of the organizing committee of the annual national scientific-practical conference "Spring Varna Dermatology Days".

He is a member of the editorial boards of a number of scientific journals: Symbiosis. Clinical Research of Dermatology: Open Access, "Dermatological Review" and "Journal of Varna Medical College".

He participates in scientific juries for defense of dissertation work and acquisition of academic positions.

## **II. General description of the submitted materials for the competition**

The materials presented by Assoc. Prof. Ilko Bakardjiev, MD, PhD for the competition are in accordance with the requirements of the LDASRB and the Rules for the development of the academic staff in the Medical University -Varna, regarding the procedure for awarding AP "Professor".

The total publication activity of the candidate contains 102 scientific works, which include: Abstract of a dissertation work - 1, related to the dissertation work -5, related to the awarding of the academic position "Docent"-47 and published after awarding the academic position "Docent"-50.

Assoc. Prof. Ilko Bakardjiev presents his scientific works, structured in several lists, according to the requirements of the LDASRB and the Rules for the development of the academic staff in the Medical University -Varna, namely:

- List of habilitation thesis or equivalent scientific publications (not less than 10 in editions), which are referenced and indexed in worldwide known databases with scientific information - 11.
- List of publications and reports published in scientific publications, which are referenced and indexed in world-famous databases with scientific information - 10.

- List of publications and reports published in scientific editions in non-refereed journals with scientific review or published in edited collective volumes 11.

For participation in the announced competition, also participation in a monograph, which is not a habilitation thesis, is submitted (1) : Pehlivanov G., Bakardzhiev I.: Dermatopathology of the male genitalia. Sofia, B&B consult, 2017, 214 p. ISBN: 978-954-91952-2-4, as well as a list of participations in national and international scientific forums (23).

### **III. Evaluation of the candidate's research activity in his overall academic development**

Following the scientific activity of Assoc. Prof. Ilko Bakardjiev, one is impressed by his diverse interests in the field of dermatology and a marked affinity to venereology, in particular non-gonococcal urethritis (NGU), which allowed him to obtain many original and confirmatory results of theoretical and applied importance. Modern diagnostic and therapeutic methods are used in scientific developments.

The complex evaluation of the research activity of Associate Professor Ilko Bakardjiev and the contributions of the achieved results includes: an analysis of his scientific production and publication activity, his participation in projects and monographs, as well as scientific and practical achievements and scientific contributions.

#### **1. Evaluation of the presented scientific production**

##### ***A. Scientific production and publication activity***

Assoc. Prof. Bakardjiev has successfully defended his dissertation on the topic: "*Modern aspects in the etiology, diagnosis and treatment of non-gonococcal urethritis*", which has significant contributions to improving the diagnosis and therapeutic behavior of these patients. For the first time in our country, a prospective systemic clinical-laboratory study of patients with non-gonococcal urethritis (NGU) was conducted with the aim of searching for prognostic and diagnostic criteria and optimizing therapeutic schemes for this socially significant disease (A\_1). The correlation with demographic, social and professional activity was analyzed. The importance of specific risk factors has been identified. (A\_1) .

The presented scientific works and the results of the research work of Assoc. Prof. Ilko Bakardjiev are separated thematically in the following scientific directions (the numbers of the articles are cited, according to those given in the academic reference):

##### **I. Diagnosis and therapy of skin and venereal diseases**

(A\_1, B\_4-1, B\_4-9, B\_4-10, D\_7-4, D\_7-8, D\_8-1, D\_8-4, D\_8-5, D\_8-6, D\_8-7, D\_8-9, D\_8-11, add-3, add-4, add-5, add-8, add-9, add-10, add-12, add-13)

II. Oncodermatology

(B\_4-2, B\_4-3, B\_4-4, B\_4-6, B\_4-7, B\_4-8, D\_7-1, D\_7-3)

III. Dermatomyology

(B\_4-5, D\_7-5, D\_7-7, D\_7-9, D\_7-10)

IV. Case studies

(B\_4-6, B\_4-7, B\_4-11, B\_9, D\_7-6, D\_8-10, D\_8-8)

V. Applied cosmetology and dermatocosmetics

(D\_8-2, D\_8-3, add-2, add-6, add-7, add-8, add-14, add-15, add-16).

Assoc.Prof. Bakardjiev is an independent author in 1, first author in 10 and second author in 19 of the presented articles. The remaining 19 articles were prepared by interdisciplinary collectives that address significant problems of dermatology and venereology, where he is the third and subsequent author.

The publications presented in the current competition by Assoc.Prof. Bakardjiev are in prestigious scientific publications with a total impact factor  $IF=18.693$ . The author continues this tradition, which started from the beginning of his publishing activity before taking the academic position "Docent", when the total impact factor of the journals in which he published was  $IF=10.312$ .

***B. Participation in project implementation***

Assoc. Prof. Bakardjiev has participated in teams for the implementation of a number of scientific projects.

He is the head of the initial project: "Investigation of expression levels of immunohistochemical markers for apoptosis and necroptosis in basocellular and spinocellular carcinoma". Project No. 21013, 2021, Science Fund of MU-Varna. The goals of the project are to investigate modern immunohistochemical markers in skin tumors in the light of modern concepts in immunopathogenesis and oncogenesis, histological verification and to determine their significance for the clinical course and application of various therapeutic regimens, prophylaxis and prevention of various skin neoplasias.

***C. Evaluation of the monographic work submitted for participation in the competition for " Associate professor" by the candidate***

Assoc.Prof. Bakardjiev is the co-author of the monograph "Dermatology of the male genitalia". The book has a special contribution of scientific-theoretical and scientific-practical importance. The object of this scientific work are infectious diseases with localization on the penis, balanitis and balanoposthitis, precancers and tumors of the penis, diseases of the scrotum, testicles, urethritis. The monograph is richly illustrated, which emphasizes its highlights and makes it easy to read. A number of diagnostic and therapeutic problems, subtleties and approaches with practical application in the daily practice of not only practicing dermatovenerologists, but also a wide range of specialists were discussed (D\_9).

## **2. Evaluation of scientific contributions**

The scientific research activity of Assoc.Prof. Bakardjiev and the contributions of the achieved results are concentrated in the following main directions:

### ***1. Dermatology of male genitalia, venereology, urethritis***

Assoc.Prof. Bakardjiev for the first time in our country conducted a prospective systematic clinical-laboratory study of patients with non-gonococcal urethritis (NGU), the results of which were published in his dissertation work, as well as in numerous publications. For the first time in Bulgaria, he developed and implemented a computer program for registering and monitoring patients with NGU, in line with world standards. For the first time in our country, the role of genital mycoplasmas in the etiology of NCDs is thoroughly studied and reported.

Assoc.Prof. Bakardjiev conducts large-scale studies of patients with urethritis, epididymitis, prostatitis, cervicitis, endocervicitis, pelvic inflammatory disease and sterility, and priority has been implemented and established correlations between the following standardized diagnostic methods: EIA, ELFA, PCR for diagnosis of *Chlamydia trachomatis*, *Neisseria gonorrhoeae*, *Mycoplasma genitalium* and *Ureaplasma urealyticum*. The serological diagnosis of chlamydia is inaccurate and leads to hyperdiagnosis. The need to apply modern diagnostic methods for adequate therapy of these diseases is justified. (B\_4-9).

Assoc.Prof. Bakardjiev participated in the development of the dermatocosmetic product "Intiman", an intimate gel for men in accordance with the natural Ph, with hydrating, nourishing, regulating and anti-inflammatory effects for daily use and after sexual contact. (add. 7).

### ***2. Pathogenesis, diagnosis and treatment of dermatological diseases***

The wide range of scientific and scientific-applied contributions in the field of prevention, diagnosis and treatment of dermatological diseases is evidenced by the large number of scientific publications and reported results in numerous scientific forums.

Assoc.Prof. Bakardjiev thoroughly studies the role of the skin microbiome in the etiopathogenesis of atopic dermatitis and skin immunity in children (B\_4-1).

Assoc. Prof. Bakardjiev researches the importance of dermatoscopic examination (trichoscopy) and interpretation in modern dermatological practice to increase the diagnostic value in patients with seborrheic dermatitis of the scalp. Due to its applicability, efficiency, non-invasiveness, easy access to the hair and scalp and minimal discomfort for the patient, it is particularly useful and accessible in clinical practice for the diagnosis of a number of skin diseases with localization along the capilium and allows the avoidance of skin biopsy. The presented different types of dermatoscopic criteria and algorithms for clinical behavior enable their use by a wider range of specialists, as well as tracking and the degree of effectiveness in the use of different topical products. (add-3).

Assoc.Prof. Bakardjiev pays particular attention to complications and infections caused by various pathogens in transplanted patients. (add-10)

He emphasizes zinc deficiency in dermatological practice, which occurs with non-specific clinical manifestations and its diagnosis is a challenge for the clinician. (D\_8-4)

Assoc. Prof. Bakardjiev participated in the development of an algorithm for diagnosis and therapy in patients with dry skin of different etiology. The importance of the changes related to the disruption of the epidermal barrier, an increase in transepidermal water loss and the level of fat secretion is emphasized, parameters that must be taken into account when choosing a treatment and can be assessed by applying fast in vivo methods in real time . (add-5).

Assoc.Prof. Bakardjiev implements many therapeutic methods and original therapeutic schemes for local and general effects: local therapy with Pimecrolimus 1% for Annular Lichen planus on penis (Д\_8-11); glycyrrhizic acid for the treatment of Condylomata acuminata with an individual approach and comparative assessment (D\_7-4); local therapy with fusidic acid in the treatment of bacterial skin infections and systemic therapy in bacterial and soft tissue infections in childhood (D\_8-5, D\_8-6); photodynamic therapy (G\_8-1); CO2 laser therapy for disseminated trichoblastomas (Г\_7-8), CO2 laser ablation of facial angiofibromas in a patient with tuberous sclerosis (Г\_8-7); treatment with the fluorinated quinolone moxifloxacin and with azithromycin of NGU (A\_1, dop-13). Different therapeutic approaches are presented according to the severity of seborrheic dermatitis. An original contribution with therapeutic and practical significance is the developed strategy for aesthetic laser removal of multiple seborrheic

keratoses and their impact on the patients' self-esteem and appearance (D\_8-9). Various therapeutic aspects for the treatment of lichen sclerosus have been reviewed (B\_4-10). A special place is devoted to the efficacy of biological therapy in psoriasis, concomitant psoriatic arthritis and nail involvement. (add-8).

For the first time, Bulgarian authors reported in the international scientific literature an effective method for the treatment of Granuloma annulare with thin-layer CO2 laser ablation and the advantage over various other laser methods: PDL, Er: Glass, Fractionated Thermolysis, Excimer laser. (add-12).

### ***3. Dermatomyology***

A special place in the scientific contributions of Assoc. Prof. Bakardjiev is occupied by his studies on the problems of skin mycoses.

For the first time in Bulgaria, he participated in conducting high-class randomized - prospective cohort studies on the susceptibility of different blood groups to androgen-associated sapromycoses, dermatophyte onychomycoses and their comorbidity to common diseases, as well as with the aim of evaluating the cause-effect relationship of the endodemographic polymorphism in patients with epidermophytoses and onychomycoses. A new paradigm is proposed. (D\_7-5, D\_7-7, D\_7-9, D\_7-10).

The "footprint method" for the microbiological examination of pathogenic yeasts from skin lesions and the evaluation of the effect of antifungal treatment has been successfully applied and implemented, and the results of the mentioned studies and of the present own study prove the primary etiological role of the yeast of the genus *Malassezia* (*Pityrosporum ovale*) for the occurrence of seborrheic dermatitis, resp. seborrheic dermatitis of the capillitium. (add-4).

### ***4. Oncodermatology***

Assoc. Prof. Bakardjiev participated in a number of studies in the field of oncodermatology. His publications discuss modern concepts in immunopathogenesis and oncogenesis, clinical picture, timely removal and histological verification, various therapeutic regimens, prophylaxis and prevention of various skin neoplasms.

### ***5. Applied cosmetology and dermatocosmetics***

Assoc. Prof. Bakardjiev has significant scientific teaching and practical experience in the field of applied cosmetology and dermatocosmetics. As a result of the long-term work in this field, many interesting results have been achieved, published in various scientific publications.



For the first time in our country, data describing the opinion of consumers on the control of parabens in dermatocosmetics and awareness and behavior when choosing dermatocosmetics products are presented. (add-2, add-6)

Assoc. Prof. Bakardjiev participated in the development and publication of a number of reviews on topics from dermatocosmetics. Peptides in dermatocosmetics (add-16), Dynamic hyaluronic acid - innovative formula for rejuvenation (G\_8-2), Microneedle mesotherapy (G\_8-3), Pearl powder - medical and dermatocosmetic innovations (add-14), Coconut oil (add-15), Dry skin - problems and solutions (add-8).

#### **6. Case studies**

Of particular interest are the casuistic descriptions of some diseases published in Bulgarian and foreign publications. They reflect nosology with specific scientific and practical significance and a much smaller frequency, incl. and lack worldwide. The descriptions of patients with the following specific skin and venereal diseases are taken into account: Plexiform neurofibroma (D\_7-6), Darier disease following Blaschko lines (D\_8-10), Unilateral unique Lupus Tumidus (B\_4-11), Syphilis primaria seropositiva clinical chameleon (additional -11), Neglected giant spinocellular carcinoma of the lower lip (B\_4-6), Pigmented paraaxillary located "Complex" Basal Cell Carcinoma imitating clinically irritated melanocytic lesion, Fibroepithelioma of Pinkus (B\_4-2), Tinea Profunda of genital area (B\_4-5), Giant extragenital Bowen disease (B\_4-7), Osteoma cutis - Neoplasia or Paleogenetics (D\_8-8).

#### **IV. Reflection (citation) of the candidate's publications in national and foreign literature (publication image)**

The works of Assoc.Prof. Ilko Bakardjiev have been evaluated by the scientific community as significant. The serious interest shown in his scientific publications is proven by the citations, mainly in prestigious international scientific publications - a total of 9 out of 5 of his significant articles.

#### **V. Complex, qualitative evaluation of the educational and methodical and teaching activity, incl. scientific guidance of students, PhD students, specialists.**

Assoc. Prof. Bakardjiev has attached a certificate, which shows that he holds the position of "head of educational sector, associate professor, higher school" in the academic sector

"Medical cosmetologist" at the Medical College of the University of Varna, as proof that he has teaching experience , as follows:

- In the Medical College, Department of "Rehabilitator and Medical Cosmetologist", as a docent from 8.4.2013. - 1.6.2015 over 2 years

- In the Medical College, as the head of the "Medical Cosmetologist" Board, from 1.6.2015 and until now ie. over 7 years.

Assoc. Prof. Bakardjiev has more than 9 years of teaching experience as an associate professor in a higher school.

Assoc. Prof. Bakardjiev has supervised 3 successfully defended doctoral students, and is currently the scientific supervisor of 1 doctoral student.

#### **VI. General assessment of the procedure and the applicant's compliance**

From the presented materials it is indisputably clear that all stages of the Procedure for disclosure and announcement of the competition have been followed. They comply with the requirements of LDASRB, and the Rules for the implementation of LDASRB and the Rules for the development of the academic staff in the Medical University -Varna.

The only candidate in the competition, Associate Professor Ilko Bakardjiev, MD, PhD, meets the requirements of the Rules for the implementation of LDASRB and the Rules for the development of the academic staff in the Medical University -Varna.

The scientific works presented in the competition have a marked scientific/scientific-applied character and are aimed at modern diagnostic and therapeutic problems in the field of dermatology and venereology. The scientific developments are planned and executed with a very well organized and structured research orientation, which proves permanently oriented scientific interests. Scientific indicators, as well as the proven qualities of an erudite researcher, clinician and well-prepared teacher formulate the characteristics of Assoc. Prof. Ilko Bakardjiev, MD, PhD.

#### **CONCLUSION**

The scientific works presented by Assoc. Prof. Ilko Bakardjiev, MD., PhD, published in prestigious Bulgarian and international scientific journals, the number of citations and other quantitative scientometric indicators, in general and after the habilitation for "Associate Professor", fulfill and exceed the requirements specified in the Rules for the development of the academic staff in the Medical University -Varna for holding the academic position "Professor". This is a reason to vote positively and to recommend to the honorable scientific

jury to support the candidacy of Assoc. Prof. Ilko Bakardjiev, MD, PhD to be elected to the academic position "Professor" in the scientific specialty "Skin and Venereal Diseases".

October 25, 2022

Prepared the review:

Sofia

PROF. DR. P. TROYANOVA, DM

A handwritten signature in blue ink, appearing to be 'P. Troyanova', written over the printed name.