REVIEW

by Prof. Dr. Ivan Nikolov Dimitrov, MD, DSc
Director of Sliven Affiliate,
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on a procedure for appointment of academic position of Associate Professor in the field of higher education 7. Health and sports, professional field 7.1. Medicine, specialty Neurology, Medical Faculty, Department of Nervous diseases and neuroscience, according to the announcement in the State Gazette No27 / 02/04/2021

By decision of the Faculty Council of the Medical Faculty at the Medical University of Varna, protocol No 44 / 31/05/2021 and by Order of the Rector of the Medical University of Varna No R-109-232 / 02/06/2021, I was elected member of the scientific jury, and on the basis of Protocol No 1 / 15/06/2021, I was determined to prepare a review (in Bulgarian and English) on a procedure for appointment of academic position of Associate Professor at the Medical University of Varna, with a single candidate – Dr. Detelina Stoilova Zhelyazkova, MD, PhD.

I. Brief biographical data about the candidate

Dr. Detelina Stoilova was born in Burgas. She graduated at the Medical University of Sofia in 1997. She specialized in neurology at the department of neurology at the same university and since 2002 she has been a specialist in neurology. In 2013 she acquired the degree of Doctor with a thesis entitled "Clinico-immunological correlations in patients with MS (profile of cytokines , chemokines and adhesion molecules - influence of immunomodulation therapy with Interferon-β) at the Trakia University, Stara Zagora. Since 2002 she has consecutively been assistant professor, senior assistant professor and chief assistant professor at the Department of Neurology at the Medical University of Sofia. She has participated in conferences and courses for additional professional training in Bulgaria and abroad, as well as in language training courses in English and Russian. She has a professional qualification in evoked potentials, ultrasound diagnostics of the nervous system and neuroophthalmology. She works as a neurologist at St. Ivan Rilski University Hospital - Sofia, heading a center for research and treatment of MS.

II. Scientific work

The candidate presents 29 scientific papers:
- Dissertation thesis - 1;
- Monograph - 1;
- Publications and reports in scientific journals, referenced and indexed in world-famous databases with scientific information – 6, in English;
- Publications in non-referred journals with scientific review or published in edited collective volumes - 22. Of these, 17 are published in journals in Bulgarian, with summary in English, and 5 - in edited collective volumes in Bulgarian language, without abstracts.

Among the publications which have a total volume of 87 pages, 9 have the candidate as first author. Dr. Stoilova is co-author of one study ("The Aging Brain", 39 pages) and of four editions of a neurology textbook in Bulgarian and English, edited by Prof. P. Shotekov. She is also author of a textbook, "Multiple sclerosis", 36 pp. (Manual for patients and GPs), which, because of its nature, is not submitted for review.

The candidate presents 7 citations in foreign papers.

A search in the Google Scholar database for Detelina Stoilova's profile, only 3 publications were found, and the h - index was 1, which does not correspond to the overall high publication activity of the candidate. ResearchGate and ORCID accounts are also available.

Regarding the scientometric indicators, the candidate in this competition covers and exceeds the minimum requirements of the Medical University - Varna, which is evident from the attached academic transcript. Dr. Stoilova accumulates 50 points (out of 50 required) for a doctoral thesis, 100 points (out of 10 0 required) for a presented monograph, 306.75 points (out of 200 required) for publications, of which 60.5 (out of 60 required) for those in scientific journals, referenced and indexed in world - famous scientific databases, as well as 105 points (out of 5 0 required) for citations.

The main direction in the scientific activity of Dr. Stoilova is multiple sclerosis, and the author also has interests in the fields of neuroophthalmology and rare neurological diseases. The contributions also correspond to this topic:

- **Multiple sclerosis:**

    1.   **Immunology.** The first in Bulgaria complex clinico-immunological study was performed of a large sample of patients with MS, with representative data for the secretion of cytokines, chemokines and adhesion molecules in MS patients with relapse and remission of the disease, a comparative analysis of the levels of a large group of cytokines, chemokines and adhesion molecules in serum and cerebrospinal fluid was done, a comparative study of the profile of cytokines, chemokines and adhesion molecules in patients receiving IFN-β1b against IFN-β1a SC was conducted, assessment of serum CCL17 was done in patients with MS therapy with IFN-β, study of sICAM-1 as a biomarker to assess the therapeutic efficacy of IFN-β was proposed, levels of antiphospholipid antibodies (anticardiolipin (ACL), anti-beta-2-glycoprotein -I (B2GPI) and anti-annexin V (AnV)) were studied in patients with relapsing-remitting MS compared to patients with systemic lupus erythematosus and healthy controls.

    2.   **Therapy.** The therapeutic item effect of immunomodulatory therapy with IFN-β in relapsing -remitting MS was studied; a comparative analysis of the clinical efficacy of IFN-β1b against IFN-β1a SC in patients with relapsing-remitting MS was conducted; the cognitive status of patients with relapsing-remitting MS in terms of working memory and executive control, as well as their long-term response to IFN-β therapy were studied; the first specialized therapeutic guide for MS in Bulgaria was created and a critical analysis of the therapeutic algorithms for relapsing-remitting MS was made, with original proposals and recommendations for individualization of the goals when choosing or changing the therapeutic approach; an original algorithm for neurorehabilitation in patients with MS was proposed.

3. **Diagnosis and differential diagnosis.** A patient with tropical spastic paraparesis was diagnosed and followed-up; an MS patient with probable progressive multifocal leukoencephalopathy was described.

3.Neuroophthalmology:

The method of computer perimetry for early diagnosis of brain neoplasms has been studied and used; a large-scale examination, monitoring and analysis of neuroophthalmological symptoms in orbital brain tumors was conducted; diagnostically verified patients with the rare neuroophthalmological pathology of tonic pupil were also studied; a case of a patient with bilateral blindness as a consequence of a combination of cortical blindness and bilateral posterior ischemic optic neuropathy resulting from generalized cerebral hypoxia has been described.

- **Rare neurological diseases :**

Rare clinical cases have been described:

- primary leptomeningeal malignant melanoma localized in the cervical region;
- myasthenia gravis with disseminated dermatophyte pseudomycetomas due to infection with Trichophyton mentagrophytes, having occurred in the course of continuous immunosuppressive therapy for the underlying disease;
- lower sagittal sinus thrombosis;
- recurrent polychondritis with bilateral amblyopia and multiinfarction encephalopathy.

- **Other contributions :**

Participation in a team for the creation of a textbook in neurology in Bulgarian and English; establishment and introduction of the country's first specialized manual for MS for patients and GPs.

The contributions presented above show high significance and relevance and are undoubtedly a personal achievement or have been made with the leading participation of the candidate.

III.   Teaching activity

Dr. Stoilova presents data on her teaching work in the last 5 years, which amounts to 130 hours per year, incl. practical exercises and lectures. For the last school year the conducted exercises are 102 hours and the lectures - 28 hours. As an advantage of the candidate should be taken into account the vote of confidence from the Department for delivering part of a lecture course, and also for participation in the development of curricula, tests, and last but not least – for participation as a co-author in several editions of a textbook. Dr. Stoilova has a long teaching experience and continues to improve her skills by participating in national and international scientific forums and training courses. This will undoubtedly be useful for her work with students and graduates at a higher academic level.

IV.   Diagnostic and therapeutic activity

Dr. Stoilova is an established and respected specialist in neurology. She is among the best trained specialists in the field of multiple sclerosis in the country and carries out expert diagnostic and treatment activities. She has a professional qualification in some fundamental, highly specialized activities in neurology – evoked potentials, ultrasound diagnostics of the nervous system and neuroophthalmology. She routinely applies modern highly specialized and innovative techniques and methods for diagnosis and treatment.

Conclusion

The applicant for appointment of academic position of Associate Professor, Dr Detelina Stoilova Zhelyazkova is a scientist and physician with extensive experience, determined for continuous development in the scientific, teaching and diagnostic fields. Her scientific works are devoted to important problems in neurology, and the research in multiple sclerosis is extremely detailed. The presented scientific and applied contributions show high importance and timeliness, and are undoubtedly a personal achievement or made with the leading participation of the candidate. In terms of scientometric indicators, the data presented covers and even exceeds the minimum requirements of the Medical University of Varna.

I would recommend Dr Stoilova to update her profiles in the electronic databases of scientific information (Google Scholar, ResearchGate, etc.), which will significantly increase the discoverability and the accessibility of her publications.

All of the above allows me to give a highly positive review to the research, teaching and therapeutic activity of Dr Detelina Stoilova Zhelyazkova, to vote positively for awarding her with the academic degree of Associate Proffessor, and to suggest to the members of the Scientific jury to support the procedure.

28/07/2021   Reviewer:
Varna   Prof. Dr. Ivan Nikolov Dimitrov, MD, DSc