

REVIEW

By Prof. Hristo Blagoev Tsekov, MD

Member of the scientific jury for the competition for the acquisition of A.D., Professor in the field of Oncology for the needs of the Faculty of Medicine, by order No. P-109-71/28.01.2026 of the Rector of MU-Varna.

Assoc. Prof. Eleonora Georgieva Dimitrova-Gospodinova, MD, participates in this competition with 23 scientific papers, after her habilitation and for the position of associate professor for the period 2019-2025. These include the habilitation thesis "Personalised Approach to Patients with Colorectal Carcinoma", eight publications in Bulgarian and 14 in English. She is the first author and second and third author in ten publications.

The papers cover three scientific areas:

1. Socially significant oncological diseases.
2. Oncopharmacology.
3. Genetics and malignancy.

General characteristics of scientific research and applied science issues.

Assoc. Prof. Dimitrova has devoted her entire creative career to uncovering the biology of colorectal carcinoma, the significance of the PIZKS mutation in breast carcinoma, diagnostic and therapeutic options in the treatment of prostate carcinoma, as well as KRAS-mutated NSCLC, and the role of genetic counselling.

Assoc. Prof. Dimitrova's extensive clinical experience is evident in her ability to develop a personalised approach to patients with CRC. This

is made possible by molecular genetic technologies for tumour genome analysis. Their possibilities and limitations are discussed. The prospects for personalised oncology range from tumour genome and tumour reversion to CAR-T cell therapies.

Assoc. Prof. Dimitrova participates in a national oncology team in a three-year study on RAS mutation status and distribution by exons and codons and the correlation between the presence of RAS mutations. The possibilities of combined radiotherapy and chemotherapy are being determined, as well as the determination of HMGB1 as a potential predictive marker for necrotic cell death and treatment outcome.

The multidisciplinary approach to the treatment of lung cancer improves therapeutic options thanks to the combination of angiogenic, immunotherapy, radio-chemotherapy and targeted therapy, as well as several lines of cytotoxic chemotherapy.

An almost ten-year survival rate was achieved in a case reported by Assoc. Prof. Dimitrova.

In another (first of its kind) multicentre study on breast cancer, PIK3CA gene mutations were found in patients with metastatic HR+/HER2-negative breast cancer and lower survival rates compared to the cohort without mutations.

Assoc. Prof. Dimitrova also presented a case with good disease control and a reported survival rate of over 18 months, without deterioration in quality of life, against the background of the first-line combination of endocrine and targeted therapy with a CDK4/6 inhibitor.

Hereditary tumour predisposition syndromes have been the focus of oncologists for two centuries. Only now, when the specifics of genetic information have been determined, has genetic testing become possible with changes in the BRCA1, MSH2, PALB2, STK11 genes associated with genetic tumour risk syndromes (GTRSs). This

enables early diagnosis, risk assessment and personalised treatment selection.

In the publications of Assoc. Prof. Dimitrova, there are several clinical cases that demonstrate not only professional training but also great attention to the patient and, last but not least, satisfaction with the results achieved.

Attention is paid to patient distress, as well as to the factors that provoke distress and the possibilities for overcoming it.

ASSESSMENT OF TEACHING TRAINING AND ACTIVITIES

Assoc. Prof. Dimitrova conducts a full range of teaching activities, including exercises and lectures on internal medicine and oncology, with an annual workload of 532 hours.

Under her scientific guidance, five doctoral students have successfully defended their theses, and six others have been accepted into the Oncology programme.

MAIN SCIENTIFIC AND SCIENTIFIC APPLICATION CONTRIBUTIONS

The scientific contributions of Assoc. Prof. Dimitrova are organically linked to her overall scientific and applied activities. For the first time, she assessed the relationship between the autophagy marker (Berlin-1) and the pre-treatment level of SUV max in liver metastases.

She presents her own experience in genetic counselling.

A correlation with changes in the BRCA1, MSH2, PALB2 and STK11 genes is confirmed. The identification of changes in genes associated with genetic tumour risk syndromes (GTRs) is essential for early

diagnosis, risk assessment and personalised treatment selection. Early diagnosis results in complete cure. An example of this is prostate cancer.

Here, positron emission tomography is the leading method for staging.

Assoc. Prof. Dimitrova reports the results of 220 studies and demonstrates both the high sensitivity and lower specificity of the method.

The trend away from the standard therapeutic approach and the proven effectiveness of new targeted agents and potentially new molecules is undoubtedly a valuable contribution.

In conclusion, I must emphasise the high quality of the presented developments, which, together with contemporary approaches, also include the authors' own results and clinical experience.

This is the main argument for my positive vote for the acquisition of AD. Professor of Assoc. Prof. Eleonora Georgieva Dimitrova-Gospodinova.

I believe that my opinion will be shared by the other members of the Scientific Jury.

With respect:

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