

REVIEW

of the scientific papers of **Dessislava Anri LAZAROVA, PhD**

Applying for the position of "Associate Professor"

in the domain of High education 4. Nature sciences, mathematics and informatics, professional direction 4.1 Physics 'science (Biophysics and medical physics), at the Medical Faculty of the Sofia University, "St. Kliment Ohridski" as announced in the

Official Journal N 99, dated 20 Nov 2020

By Associate Professor Georgi V. Hadjidekov, MD, PhD

From the Department of Physics Biophysics and Radiology of the Medical Faculty of the Sofia University "St Kliment Ohridski"

According University Rector's Order: PД № 38-28/18.01.2021.

In the concourse procedure for the position of "Associate Professor" in the domain of High education 4. Nature sciences, mathematics and informatics, professional direction 4.1 Physics 'science (Biophysics and medical physics), at the Medical Faculty of the Sofia University, "St. Kliment-Ohridski" as announced in the Official Journal N 99 page 54, dated 20 Nov 2020 the only candidate presented is PhD, Assistant Professor.

1. General data of the candidate:

Dessislava Anri Lazarova is born in 1981.

From 2004 she is bachelor in Molecular biology, from 2006 – Master in Molecular biology – Biophysics, from 2019 – specialist and PhD in Biophysics.

She has good command in English and Russian.

2. Research activities

Applying to the cited concourse, Mrs. Lazarova presents a large number of papers, twenty-five out of them full text, outside of those related to her PhD thesis and are subject to this review. 16 (sixteen) out of them have IF as total as IF 34.881. Lazarova's papers are cited 144 (hundred forty-four) times in international scientific journals. 23 (twenty-three) other communications are presented in several scientific meetings.

The main topics of the research activities of the candidate are in the fields of:

- Modulation of the redox-status and enhancing the sensibility of tumors; cells to the conventional chemotherapeutics drugs
- Nitroxide-enhanced EPR methodology for visualization and assessment of the cell redox-status
- Optical imaging
- Algorithm for extracting contrast-enhanced signals from magnetic resonance images.

The research of Dessislava Lazarova is in advanced field of biophysics with original experimental issues well described, assuring possible reproduction. Result and conclusions deal with the potential use of assessment of redox-status for optimizing anticancer drugs effects and in evaluation of new contrast agent for theranostic capabilities.

3. Teaching activities

Dessislava Lazarova is assistant-professor at the Department of Physics, Biophysics and Radiology of the Medical Faculty of the Sofia University "St Kliment Ohridski". She has annually more than six hundred teaching hours for medical students that exceed largely the minimal requirements. The presented materials show Dessislava's participation in several education projects.

4. Papers contributions

Contributions of **Dessislava Lazarova's** papers are scientifically theoretical and scientifically practical. I totally accept the scope of the author's consideration of her papers contribution.

5. Critical notes

I don't have any substantial critical notes to the presented papers and related material.

6. Conclusion

Dessislava Lazarova, PhD, assistant-professor, is a fully trained specialist researcher and educator. The papers she has presented concern advanced and very interesting aspects of today biophysics, have significant scientific and practical contributions and largely cover the national minimal requirements for the academic position of Associate-professor.

I give my positive vote with conviction and invite the honorable members of the Jury to vote positive too to confer the academic position of Associate Professor to Dessislava Lazarova, PhD, assistant-professor, for the educational purpose at the Medical Faculty of the Sofia University, "St. Kliment Ohridski".

Reviewer:

Georgi Hadjidekov, PhD

Associate Professor of Radiology

Sofia, 15 of February 2021