



UNIVERSITY of SZEGED

FACULTY OF SCIENCES

DEPARTMENT OF BIOPHYSICS
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Head of the Department

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To the Search Committee

It is a great pleasure and honor to write this letter of recommendation for

dr. Vladimir Shinkarev

and I wish to express my strongest possible support for his candidacy for a position at your Department.

I have known dr. Shinkarev for 2-3 decades from his outstanding papers in the field of photosynthesis and for about 15 years in person when he joined Prof. Colin Wraight's lab at UIUC in Urbana-Champaign, Illinois. Although we do not have common papers, I know him very well and I highly appreciate his natural enthusiasm, hard work and sharp thinking in science.

Generally, 5 points are considered important for hiring new faculty position and dr. Shinkarev is found excellent in all criteria.

(i) Scientific quality of research

Dr. Shinkarev belongs to the last generation of students and young research workers who received deep and widespread education in Russia and accumulated valuable experiences in science. With this background, he achieved ground-breaking results in the fields of molecular bioenergetics, theoretical biophysics and bioinformatics. The scientific community acknowledges his pioneering contribution in understanding of kinetics and thermodynamics of electron transfer in multienzyme complexes and in binary and tertiary oscillation of oxygen evolution in photosynthesis. His reviews devoted to these fields are well written and give full picture about the present state of our knowledge.

He is well trained and interested both in experiments and theory. Dr. Shinkarev designed and constructed several devices which helped his and others' work in electrochemistry or optical spectroscopy. He is very far-seeing in planning of instruments, careful in construction and thorough in measurements.

(ii) Fundability (previous and future);

Dr. Shinkarev is co-principal investigator in an active NIH grant (that is the renewal of a previous NIH grant) and was earlier principal investigator of an USDA grant. He has good chances to continue this activity in the new place and new position.

(iii) Teaching

Dr. Shinkarev was regularly involved in teaching in Russia. For many years, he was delivering his own course on "Stochastic processes in biochemistry and biophysics". This course was attended by ~20 students mostly from the Department of Biophysics. In addition, he delivered occasionally lecture course in Statistics (as part of bioinformatics) to ~ 100 students. He was also involved on regular basis in different labs as part of general course in Biophysics (for all undergraduate students) or labs for graduate students, where he was responsible for particular topics (such as photosynthesis, mathematic modeling, etc).

Dr. Shinkarev had also organized a lecture/discussion/problem-solving seminar for undergraduate students in biophysics and bioenergetics. Many of his students obtained training through this seminar and became internationally recognized scientists in biochemistry and biophysics (Cherepanov D.N., Mulkidjanian A.YA., Pottosin I.I., Sled' V.D., Zhcrdev A.V. among others).

His formal teaching in the UIUC was significantly smaller, as he had 100% of research appointment. In UIUC he was involved in teaching Biophysics 354 (Biological energy conversion) and Biophysics 332 (Photosynthesis), both of them as part of team teaching). He was mostly involved in day-to-day training, consulting or mentoring students.

Considering dr. Shinkarev's teaching experiences, he is a good teacher and I'm sure he will show it when he will be given the opportunity to do so.

(iv) Involvement in collaboration

A significant fraction of his papers are written in collaboration with other outstanding scientists. Research fields different from his close activity (e.g. imaging via scanning probe microscopy or different modes of Fourier transform spectroscopy) are drawn into his interest as a result of collaborative work.

(v) Social aspects

Dr. Shinkarev can accommodate to new situations and find the correct connection to all members of the community. He likes to talk about science, teaching and general affairs and the discussion with him is always stimulating. I'm sure he will find the right way to treat colleagues and students. He will not be isolated but will soon become an active and distinguished member of the new community.

I have the very highest regard for dr. Vladimir Shinkarev. Throughout his career in research, his work had substantial influence on the progress of research in several labs in the U.S. and around the world. His major contributions in bioenergetics, bioinformatics and computational biology are internationally recognized and I believe that his scientific skills and achievements are more than adequate for filling a position at your Department.

Very sincerely yours,

Peter Maróti

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