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SCOPE OF THE CONGRESS

The topics of the sessions during the 19th Congress of the Polish Biophysical Society.

Session I – Nanomedicine – biophysical aspects

Session II – Life-essential biomolecules

Session III – Biophysics of biological systems: from cells to tissues

Session IV – Medicinal biophysics

Session V – Ion channel in cell biophysics

Session VI – Medical significance of proteins and nucleic acids

Session VII – Spectroscopy – ideas, methods, and applications in life science

Session VIII – Biosensing and microfluidic systems for disease biomarkers detection in biomedical research

Session IX – Biophysics of mitochondria

Session X – Protein dynamics, disorder, and phase separation

Session XI – Theoretical, computational, and data-driven advances in biophysics

PREFACE

It is with great pleasure that we welcome you to Warsaw, Poland, for the 19th Congress of the Polish Biophysical Society – PTBF2025. This year's event is proudly organized by the Polish Biophysical Society in collaboration with the Department of Physics and Biophysics at the Institute of Biology, Warsaw University of Life Sciences, and the Division of Biophysics, Faculty of Physics, University of Warsaw.

PTBF2025 serves as a platform to showcase cutting-edge research and foster interdisciplinary collaboration among scientists working across a broad spectrum, from fundamental fields like physics, chemistry, and biology to applied disciplines such as laboratory diagnostics, pharmacy, and medicine. We promote the activity of students and early career researchers, providing them the opportunity to build valuable connections and gain inspiration from leaders in the field.

We are expecting around 160 participants. The programme includes 11 thematic sessions featuring 65 lectures, 3 interactive workshops, and a dedicated space for over 55 poster presentations, providing ample time for discussion and exchange of ideas.

We extend our sincere thanks to our sponsors and partnering institutions for their generous support. And most importantly, we thank each of you for contributing your knowledge, enthusiasm, and groundbreaking science to PTBF2025.

We wish you a productive and inspiring congress, and a pleasant and memorable stay in Warsaw!

Piotr Bednarczyk
PTBF President

Beata Wielgus-Kutrowska
PTBF Vice-President