**DESCRIPTION**

*BBA General Subjects* accepts for submission either original, hypothesis-driven studies or reviews covering subjects in *biochemistry* and *biophysics* that have general scientific interest for a wide audience. Interdisciplinary studies are encouraged. Descriptive studies without biochemical or biophysical mechanistic evidence and insights are discouraged. **Preferred topics are:**

- **biomedicine:** fundamental and emerging topics in biochemistry/biophysics with potential medical implications
- **nanobiology/nanotechnology:** nanoparticles, nanotoxicology, nanomedicine
- **omics:** genomics, proteomics, lipidomics, glycomics, bioinformatics experimentally addressing a defined biological question
- **chemical biology:** chemical compounds, drug mechanisms, synthesis of novel compounds, click chemistry
- **structural biology:** crystallography, NMR, multimeric proteins, protein dynamics, nucleic acids
- **novel complexes:** nucleic acids, pure natural compounds, synthetic compounds, protein complexes, nucleic acid derivatives
- **cellular signaling:** receptor signaling, protein phosphorylation cascades, phosphatases, secondary messengers, transcription regulation, gene expression
- **glycobiology:** sugar metabolites and metabolism, glycosylated proteins, membrane protein, glycosylation, glycomics
- **redox biology:** redox switches, glutathione and thioredoxin systems, oxygen and nitrogen radical species, superoxide, hydrogen peroxide, hydroxyl radical, nitric oxide, peroxides, hypoxia, redox regulation of transcription factors
- **neurobiology:** neuronal growth factors and nerve signaling, glial cells, autonomic and central nervous systems
- **stem cells:** differentiation, stem cell isolation and cultivation, growth factors
- **mechanistic characterization of compounds**

*BBA General Subjects* does not consider studies on the biological effects of crude extracts of natural sources unless the exact active molecules are identified, singularly characterized and evaluated.

**AUDIENCE**

Biochemists, molecular biologists, glycobiologists, developmental biologists

**IMPACT FACTOR**

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Signal transduction, phosphoinositide signalling, PI3-kinase/PDK1 signalling pathway, cell migration and invasion, ABC transporters, Pharmacology, Cannabinoids, Extracellular vesicles
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Glycobiology, Congenital Disorders of Glycosylation, Glycosylation, Golgi, vesicular trafficking, ion homeostasis
Xiao-Dong Gao, Jiangnan University, Wuxi, Jiangsu, China
congenital disorders of glycosylation (CDG), glyco-engineering, Chemical-glycobiology, Glycobiology, Molecular Biology
Sara Goldstein, Hebrew University of Jerusalem, Jerusalem, Israel
Pulse radiolysis, kinetics, nitroxides, peroxynitrite, NO-donors, HNO donors, hydroxamic acids, nitrosocarbonyls

**Raffaella Gozzelino**, Nova University of Lisbon, Lisboa, Portugal
Iron metabolism, Heme, Inflammation, Infection, Neurodegenerative diseases.

**Lee M. Graves**, The University of North Carolina at Chapel Hill School of Medicine, Chapel Hill, North Carolina, United States of America
Cellular mechanisms of drug resistance in cancer, Protein phosphorylation and protein kinase-mediated signaling pathways, application of proteomics, Protein kinase inhibitors, Regulation of metabolic enzymes by phosphorylation and interacting proteins

**Elin Gray**, Edith Cowan University, Joondalup, Australia
Cellular mechanisms of drug resistance in cancer, Protein phosphorylation and protein kinase-mediated signaling pathways, application of proteomics, Protein kinase inhibitors, Regulation of metabolic enzymes by phosphorylation and interacting proteins

**Yoichiro Harada**, Kagoshima University, Kagoshima, Japan
Endoplasmic reticulum, Exosomes, Extracellular vesicles, Glucose metabolism, Glycosylation, Glycan metabolism

**Rong-Qiao He**, Chinese Academy of Sciences, Beijing, China
tau Proteins, Xenopus, Kinetics, Atomic Force Microscopy, Protein Denaturation and Folding

**Johannes Herrmann**, Rheinland-Pfälzische Technische Universität (RPTU), Kaiserslautern, Germany
mitochondrial biogenesis, protein targeting, redox biology, membrane biology, mitochondrial ribosomes, yeast genetics

**Hidenori Ichijo**, The University of Tokyo, Bunkyo-Ku, Japan
Endoplasmic-reticulum-associated protein degradation (ERAD), superoxide dismutase (SOD), NAMPT, necrosis (necrotic death), mitogen-activated protein kinase (MAPK), c-Jun N-terminal kinase (JNK), endoplasmic reticulum stress (ER stress), p38 MAPK, apoptosis signal-regulating kinase 1 (ASK1), cell death, osmotic swelling

**Zahra Iqbal**, The University of Sydney, Sydney, New South Wales, Australia
Cancer, Drug Resistance, Drug targeting, Iron metabolism, Multidrug resistance, Oxidative stress

**Anders H. Johnsen**, Copenhagen University Hospital, København, Denmark
Neuropeptides, Post-Translational Protein Processing, Molecular Sequence Data, High Pressure Liquid Chromatography, Mass Spectrometry, Radioimmunoassay, protein chemistry

**Hyun (Joy) Kim**, Seoul National University, Gwanak-gu, South Korea
Membrane proteins, translocon, signal peptidase, endoplasmic reticulum, protein targeting

**Yasuhiko Kizuka**, Gifu University, Gifu, Japan
Glycosylation, Glycobiology, Epigenetics, Alzheimer’s disease, Sugar analog, Chemical biology

**Antonis E. Koromilas**, McGill University, Montréal, Quebec, Canada
mRNA translation, translation initiation factor eIF2, environmental stress, mTOR, protein phosphorylation, STATs, oncogenes, tumor suppressors, transgenic mice, lung cancer, breast cancer

**Zaklina Kovacevic**, The University of Sydney, Sydney, New South Wales, Australia
Cancer, Oncoproteins, Toxicology

**Sharon La Fontaine**, Deakin University, Burwood, Victoria, Australia
copper, copper transport, copper P-type ATPase, copper chaperone, metal transport, metal homeostasis, iron, glutaredoxin, redox biology, Menkes disease, Wilson disease, neurodegenerative disease, distal hereditary motor neuropathy

**Darius Lane**, Parkville, Melbourne, Victoria, Australia
Cell culture, Cell signaling, Chelator, Epithelial-Mesenchymal Transition, Erythropoiesis, Ferritin, Hypoxia, Iron, Iron homeostasis, Metal chelator, Metastasis, Mitochondrial Diseases, Reactive Oxygen Species, ROS

**Gordan Lauc**, University of Zagreb, Faculty of Pharmacy and Biochemistry, Zagreb, Croatia
Protein glycosylation, High-throughput glycomics, Genetic regulation of protein glycosylation, Glycosylation in disease

**Christopher Horst Lillig**, University of Greifswald, Greifswald, Germany
Glutaredoxins, Oxidation-Reduction, Molecular Sequence Data, Mitochondria, Oxidative Stress, Thioredoxins

**Mary Lipton**, Pacific Northwest National Laboratory, Richland, Washington, United States of America
Proteomics, Multi-omics, Functional Analyses, Microbial Communities, Stable Isotope Labeling

**Laurence Motte**, Sorbonne North Paris University, Villetteau, France
Inorganic nanoparticles, synthesis, surface functionalisation, nanomedicine, imaging contrast agents

**Shinichi Nishimura**, Hiroshima University, Higashihiroshima, Japan
Chemical Biology, Natural Products Chemistry, Microbiology

**Jose Renato Pinto**, Florida State University, Department of Biomedical Sciences, Tallahassee, Florida, United States of America
Striated muscle regulation, Troponin, Muscle biophysics, Cross-bridge kinetics, Cardiomyopathies

**Oliver Rackham**, Harry Perkins Institute of Medical Research, Perth, Australia

synthetic biology, RNA-binding proteins, ribosomes, protein engineering, directed evolution

**Des R. Richardson**, Griffith University, Nathan, Queensland, Australia

Iron, Copper, Melanoma, Copper transport, Zinc, Frataxin, Metal, Transferrin, Iron-sulfur protein, Metal ion-protein interaction, Tumor therapy, Iron metabolism, Metal homeostasis, Metalloenzyme, Transport metal

**Sumit Sahni**, The University of Sydney, Sydney, New South Wales, Australia

Hypoxia in Cancer Progression, pancreatic cancer, autophagy, AMPK energy homeostasis pathway, tumor microenvironment, biomarkers

**Tomáš Šimůnek**, Charles University, Faculty of Pharmacy in Hradec Králové, Hradec Králové, Czechia

mitochondria, oxidative stress, topoisomerase II, anthracycline cardiotoxicity, ton metabolism

**Suzy Torti**, University of Connecticut, Department of Molecular Biology and Biophysics, Farmington, Connecticut, United States of America

Cancer cell biology, iron metabolism, oxidative stress, biochemistry

**Renata Veselska**, Masaryk University, Brno, Czechia

Tumor biology, tumor markers, cancer stem cells, cytoskeleton, pediatric solid tumors

**Rebecca Wade**, Heidelberg Institute for Theoretical Studies, Heidelberg, Germany

Molecular modelling and simulation, structure-based drug design, bioinformatics, molecular systems biology, biomolecular recognition, protein-ligand interactions.

**Zefeng Wang**, Partner Institute for Computational Biology Chinese Academy of Sciences and Max Planck Society, Shanghai, China

Gene regulation, RNA binding protein, RNA turnover, protein motif, RNA-protein interaction, computation, protein engineering, RNA splicing, translation control, translation initiation factor, RNA metabolism, biophysics, translation initiation, RNA processing, ribozyme (catalytic RNA) (RNA enzyme), bioinformatics

**Yau-Huei Wei**, Changhua Christian Hospital, Changhua, Taiwan

Mitochondria, mitochondrial disorders, bioenergetics, oxidative stress, metabolic regulation, stem cell research, metabolic reprogramming, induced pluripotent stem cells

**Christopher West**, University of Georgia, Athens, Georgia, United States of America

Glycomics, Ubiquitin Ligase, Cell Wall, Hypoxia, O2-Sensing, Prolyl Hydroxylation., Protozoa

**Hans Westerhoff**, University of Amsterdam, Amsterdam, Netherlands

Systems biology

**Weidong Wu**, Xinxiang Medical University, Xinxiang, China

Health effect and molecular mechanisms of air pollution, epidemiology, oxidative stress, inflammatory cell signaling, protein phosphorylation, regulation of inflammatory gene expression, antioxidant intervention, airway or gut microbiome and health., air pollution

**Yoshiki Yamaguchi**, Institute of Physical and Chemical Research, Wako, Japan

Structural Glycomics, NMR, Glycan Recognition, Lectin Receptors, Glycoconjugates

**Aixin Yan**, The University of Hong Kong, Hong Kong, Hong Kong

Microbiology, Antibiotic Resistance, Microbial Stress Response, CRISPR-Cas, Antimicrobial Development, Biometals

**Wei Yue**, The University of Oklahoma Health Sciences Center, Oklahoma City, Oklahoma, United States of America

Antibiotics, cardiac glycosides, antidiabetic and anticancer agents, Drug interaction, Drug toxicity, Drug transport, drug transport proteins, drug-disease interactions, immunosuppressants, OATP, Organic anion transporting polypeptides, Pharmacokinetics, RNA interference, statins

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Mitochondria, Membrane Proteins, Bioenergetics, Complex I, Proteomics
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- **cellular signaling**: receptor signaling, protein phosphorylation cascades, phosphatases, secondary messengers, transcription regulation, gene expression
- **glycomics**: sugar metabolites and metabolism, glycosylated proteins, membrane protein, glycosylation
- **redox biology**: redox switches, glutathione and thioredoxin systems, oxygen and nitrogen radical species, superoxide, hydrogen peroxide, hydroxyl radical, nitric oxide, peroxides, hypoxia, redox regulation of transcription factors
- **neurobiology**: neuronal growth factors and nerve signaling, glial cells, autonomic and central nervous systems
- **stem cells**: differentiation, stem cell isolation and cultivation, growth factors
- **imaging methodologies**: having biochemical importance and general interest (drug leads, toxicants, nutrients, metabolites)

Structural data
For papers describing structures of biological macromolecules, the atomic coordinates and the related experimental data (structure factor amplitudes/intensities and/or NMR restraints) must be deposited at a member site of the Worldwide Protein Data Bank (http://www.wwpdb.org): RCSB PDB (http://www.pdb.org), MSD-EBI (http://www.ebi.ac.uk/pdbe/), PDBj (http://www.pdbj.org), or BMRB (http://www.bmrb.wisc.edu). Manuscripts must carry a statement that coordinates and structure factors (or NMR restraints) have been deposited in the Protein Data Bank. The accession number(s) must be cited in the manuscript at the end of the Materials and Methods section. Authors must agree to release the atomic coordinates and experimental data immediately upon publication.

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Full-length research articles (Regular paper), Review articles and Mini-reviews, brief reports (BBA Research Letters)

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**Reviews (full-length)** should provide a comprehensive analysis on topics of broad interest to the journal's readership. Reviews should be thorough, sufficiently critical and accommodate different points of view. They should not be exhaustive compilations of previously published data, nor should they merely cover contributions from the author's own research. They should stand out from other recently published reviews on the same theme. Reviews are typically about 6,000 to 10,000 words in length (excluding References and Figure legends), include an Abstract that is no longer than 150 words, up to 100 references (should include Titles), and a minimum of three figures/illustrations. The number of co-authors of review articles is limited to 5.

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Authors should include a statement in the manuscript that informed consent was obtained for experimentation with human subjects. The privacy rights of human subjects must always be observed.

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Reporting sex- and gender-based analyses
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Definitions
Sex generally refers to a set of biological attributes that are associated with physical and physiological features (e.g., chromosomal genotype, hormonal levels, internal and external anatomy). A binary sex categorization (male/female) is usually designated at birth ("sex assigned at birth"), most often based solely on the visible external anatomy of a newborn. Gender generally refers to socially constructed roles, behaviors, and identities of women, men and gender-diverse people that occur in a historical and cultural context and may vary across societies and over time. Gender influences how people view themselves and each other, how they behave and interact and how power is distributed in society. Sex and gender are often incorrectly portrayed as binary (female/male or woman/man) and unchanging whereas these constructs actually exist along a spectrum and include additional sex categorizations and gender identities such as people who are intersex/have differences of sex development (DSD) or identify as non-binary. Moreover, the terms "sex" and "gender" can be ambiguous—thus it is important for authors to define the manner in which they are used. In addition to this definition guidance and the SAGER guidelines, the resources on this page offer further insight around sex and gender in research studies.

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All authors should have made substantial contributions to all of the following: (1) the conception and design of the study, or acquisition of data, or analysis and interpretation of data, (2) drafting the article or revising it critically for important intellectual content, (3) final approval of the version to be submitted.

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