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** having biochemical importance and general interest (drug leads, toxicants, nutrients, metabolites). *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
ABSTRACTING AND INDEXING

Science Citation Index
EMBiology
Sociedad Iberoamericana de Informacion Cientifica (SIIC) Data Bases
BIOSIS Citation Index
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Current Contents - Life Sciences
Embase
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Scopus

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Iron Metabolism, ferritin, ferroptosis
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Mahendiran Dharmasivam, Griffith University Griffith Institute for Drug Discovery, Nathan, Australia
Medicinal Chemistry, Bio-Inorganic Chemistry, Cancer Cell Biology, Molecular Stimulations and DFT calculations
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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, nitrosocarboxyls

**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
Cancer genetics, Molecular biology, Circulating tumour cells, Circulating tumour DNA, Exosomes, Single cell sequencing.

**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

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

**Antonis E. Koromilas**, Université McGill, 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
Metastasis, Epithelial to mesenchymal transition, NDRG1, EGFR signaling, Breast Cancer, Pancreatic Cancer

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

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

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Neuropeptides, Post-Translational Protein Processing, Molecular Sequence Data, High Pressure Liquid Chromatography, Mass Spectrometry, Radioimmunoassay, protein chemistry

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**Zaklina Kovacevic**, The University of Sydney, Sydney, New South Wales, Australia
Metastasis, Epithelial to mesenchymal transition, NDRG1, EGFR signaling, Breast Cancer, Pancreatic Cancer

**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, Villemaineuse, France
Inorganic nanoparticles, synthesis, surface functionalisation, nanomedecine, 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

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

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Glycobiology, 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 Glycobiology, 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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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.

It is increasingly common for coordinates to be deposited in the Protein Data Bank without an associated publication. Before submission to BBA, authors are expected to search the Protein Data Bank for related structures using one or more alignment programs and report the outcome. Prior deposition of related coordinates, without an associated publication, does not necessarily preclude publication in BBA. The primary criteria for publication of a structure in BBA are that it provides novel structural insights or important new functional and biological insights that are likely to be of general interest.

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

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Reviews and mini-reviews are typically commissioned by the Editors. All Review Articles should be authoritative, state-of-the-art accounts of the selected research field, be of high interest, balanced and accurate. Beyond summaries of important scientific developments and ideas, authors are encouraged to identify and discuss how the field may be impacted or develop in the future, including insights that may be of significance to the scientific community. All BBA Review Articles
undergo rigorous and full peer review, in the same way as regular research papers, and publication cannot be guaranteed. The number of co-authors of review articles is limited to five and each author is expected to make a substantial contribution to the writing of the manuscript.

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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.

**Mini-reviews** are succinct, focused updates of the literature related to a question of current interest in the scientific community (typically from the last 2-3 years). Subjects covered in Mini-reviews are generally narrower, either in scope or depth, than those covered in full-length Reviews. They should highlight/analyse/discuss recent and important findings and include the author’s viewpoint on how the subject relates to the current state of the field. The author's personal assessment and interpretation of the data and her/his indication of controversies, shortcomings and gaps in the present state of knowledge are highly desirable, but should be presented as such. Views of possible future developments and relevance and applicability to other fields or disciplines are encouraged. Mini-reviews are usually 2000 to 4000 words in length (excluding References and Figure legends), include up to 50 references (should include titles) and no more than 1-3 figures/illustrations. A Structured Abstract that is no longer than 150 words, sub-divided into subsections entitled: Background; Scope or Review; Major Conclusions and General Significance should also be included. References should be numbered throughout the text (e.g. [23]) and should have full Titles in the Reference list. The number of co-authors of review articles is limited to 3.

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