BIOCHIMICA ET BIOPHYSICA ACTA - BIOMEMBRANES

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DESCRIPTION

*BBA Biomembranes* has its main focus on **membrane structure, function** and **biomolecular organization**, membrane proteins, receptors, channels and anchors, fluidity and composition, model membranes and liposomes, membrane surface studies and ligand interactions, transport studies, and membrane dynamics.

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AUDIENCE

Biochemists, Structural Biologists, Biophysicists, Cell biologists, and Molecular pharmacologists.

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Skin lipid organisation, biophysical methods, stratum corneum, interactions between ceramides/cholesterol and fatty acids, drug transport
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Lipid-protein interaction, membrane receptors, cholesterol, fluorescence spectroscopy, tryptophan fluorescence
Lukasz Cwiklik, Czech Academy of Sciences, Praha, Czech Republic
Lipid membranes, lipid monolayers, tear film, pulmonary surfactant, molecular dynamics simulations, Langmuir-Blodgett trough, protein-lipid interactions
Pablo V. Escriberna, University of the Balearic Islands, Palma de Mallorca, Spain
Membrane lipid therapy; membrane structure; membrane microdomain; protein-lipid interactions; G proteins; amphiphilic proteins; G protein-coupled receptors; cell signaling; sphingomyelin; Sphingomyelin synthase; SMS1 and SMS2; phosphatidylethanolamine; hexagonal phase; fatty acid; oleic acid; hydroxysterolic acid; DHA; hydrox-DHA; cancer; glioma; glioblastoma; lung cancer; Alzheimer’s disease; Adult Polyglucosan Body Disease; neuropathic pain
Wolfgang Fischer, National Yang-Ming University, Taipei, Taiwan
Membrane proteins, ion channels, protein assembly and dynamics, molecular dynamics simulations, channel recordings

**Klaus Gawrisch**, National Institute on Alcohol Abuse and Alcoholism, Rockville, Maryland, United States

Biomembranes, NMR, polyunsaturated lipids, DHA, GPCR, rhodopsin, cannabinoid receptors

**Gerald Gimpl**, Johannes Gutenberg University, Mainz, Germany

Oxytocin receptor, cholesterol, cholesterol-receptor interaction, cholesterol trafficking, fluorescence microscopy

**Félix M. Goñi**, University of the Basque Country Department of Biochemistry, Leioa, Spain

Lipids

**Kalinina Hristova**, Johns Hopkins University, Baltimore, Maryland, United States

Membrane receptors, membrane structure, membrane protein interactions, antimicrobial peptides, fluorescence methods

**Huey W. Huang**, Rice University, Houston, Texas, United States

Membrane-active peptides, membrane fusion, diffraction techniques

**John Katsaras**, Oak Ridge National Laboratory, Oak Ridge, Tennessee, United States

Biomembranes, MD simulations, X-ray and neutron scattering

**Sandro Keller**, TU Kaiserslautern University, Kaiserslautern, Germany

New membrane-mimetic lipid-bilayer nanodiscs on the basis of amphiphilic copolymers, novel fluorinated surfactants for membrane-protein research, folding, functions, and interactions of membrane proteins, membrane biophysics, membrane-mimetic systems, membrane proteins, polymer-based nanodiscs

**Jeffery Klauda**, University of Maryland at College Park, College Park, Maryland, United States

Cell membranes, molecular simulations, lipids, force fields, computational biology

**Norbert Kučerka**, Comenius University in Bratislava, Bratislava, Slovakia

Model and biological membranes, lipidomics, cholesterol, amyloid-beta peptides, neuron and X-ray scattering, diffraction, MD simulations

**Ivan Leventhal**, National University of Colombia Medellin, Medellin, Colombia

Mitochondrial membranes and cell energy metabolism regulation, membrane-permeabilizing peptides

**Zoya Leonenko**, University of Waterloo Department of Physics and Astronomy, Waterloo, Ontario, Canada

Biophysics of lipid membrane, membrane-protein interactions, molecular neuroscience, Alzheimer’s, s disease, scanning probe microscopy, biomedical nanotechnology

**Ilya Levental**, University of Texas Health Science Center at Houston, Houston, Texas, United States

Membrane, lipid, raft, lipomics, fluidity, cholesterol, plasma membrane, cell membrane, domain, liquid-ordered, phase separation

**Irena Levitan**, University of Illinois at Chicago College of Medicine, Chicago, Illinois, United States

Cholesterol regulation of ion channels, lipid-protein interactions, membrane biomechanics, mechanotransduction

**Marjorie Longo**, University of California Davis, Davis, California, United States

Experiments in supported membranes, confined membranes, membrane phase behavior, membrane mechanical properties, membrane protein reconstitution, membranes containing polymers, membrane nanodiscs, lipid-stabilized microbubbles, monolayers, fluorescence methods.

**Gary A. Lorigan**, Miami University, Oxford, Ohio, United States

Membrane Proteins, membrane peptides, structure, polymer-based nanodiscs, EPR, NMR

**Maria Luisa Mangoni**, University of Rome La Sapienza, Roma, Italy

Antimicrobial peptides, peptide-membrane interaction, lipopolysaccharide, antibiotic resistance, antimicrobial/anti-endotoxin activities, pore-forming peptides

**Isabelle Marcotte**, University of Quebec at Montreal Department of Chemistry, Montreal, Quebec, Canada

Biological solid-state NMR, model membranes, lipid interactions, NMR of intact cells, protein structure

**Katsumi Matsuzaki**, Kyoto University, Kyoto, Japan

Peptide (protein)-lipid interaction, antimicrobial peptides, amyloids, transmembrane helices

**Sergei Noskov**, University of Calgary, Calgary, Alberta, Canada

Theoretical biophysics, molecular dynamics simulations, ion channels and secondary transporters, statistical mechanics

**Georg Pabst**, University of Graz, Institute of Molecular Biosciences, Graz, Austria

Biological membrane mimics, lipid/protein interactions, membrane asymmetry, membrane active compounds

**Jesus Perez-Gil**, Complutense University of Madrid, Madrid, Spain

Pulmonary surfactant, lipid-protein interactions, monolayer and bilayer membrane models, membrane domains and structure, membrane protein structure

**Elmar Prenner**, University of Calgary, Calgary, Alberta, Canada
Biomimetic membranes, lateral membrane organization, biophysical methods, metal-membrane interactions, pulmonary drug delivery, nanoparticles

Manuel Prieto, University of Lisbon, Lisbon, Portugal
Lipid phase diagrams and lipid domains (rafts), fluorescence (FRET) and fluorescence microscopy (FCS and FLIM), lipid-protein interaction, ceramides, ion channels, amyloid fiber formation

R. Scott Prosser, University of Toronto Mississauga Department of Chemical and Physical Sciences, Mississauga, Ontario, Canada
NMR, GPCRs, protein dynamics, 19F NMR, drug discovery

Ayyalusamy Ramamoorthy, University of Michigan, Ann Arbor, Michigan, United States
Membrane protein, structure, amyloids, antimicrobial peptides, NMR

Marina Rautenbach, Stellenbosch University, Stellenbosch, South Africa
Antimicrobial peptides, biophysical analysis, bioactivity assays, mass spectrometry, peptide chemistry

Tomasz Róg, University of Helsinki, Helsinki, Finland
Biomolecular simulations and modelling, lipid bilayer biophysics, cholesterol, lipids in nanotechnology, membrane proteins

Dirk Schneider, Johannes Gutenberg University, Mainz, Germany
Membrane dynamics; membrane proteins; membrane protein folding and assembly; protein-lipid interactions; thylakoid membrane

Yechiel Shai, Weizmann Institute of Science, Rehovot, Israel
Peptide-membrane interaction, peptide-peptide interaction within the membrane, virus-cell fusion, membrane fusion, antimicrobial peptides, molecular recognition within the membrane, innate immunity peptides, fluorescent studies

Stephen Sligar, University of Illinois at Urbana-Champaign, Champaign, Illinois, United States
Suzana Strauss, The University of British Columbia, Vancouver, British Columbia, Canada
NMR and other biophysical techniques, peripherally-associated and integral membrane proteins, protein-protein interactions, protein-lipid interactions, antimicrobial peptides

Lukas Tamm, University of Virginia, Charlottesville, Virginia, United States
Membrane structure and dynamics, lipid-protein interactions, NMR of membrane proteins, membrane fusion

Jianhua Wang, Chinese Academy of Agricultural Sciences, Beijing, China
Antimicrobial peptides, Lactoferricin, Lactoferrin, Peptide membrane-penetrating mechanism, Molecular design and modification of AMP, Recombinant expression and purification of AMP and functional proteins

William Wimley, Tulane University, New Orleans, Louisiana, United States
Antimicrobial peptide, pore forming peptide, membrane active peptides, cell penetrating peptide, antiviral peptide

Christopher Yip, University of Toronto, Toronto, Ontario, Canada
Scanning probe microscopy, molecular dynamics, spectroscopy, single molecule biophysics, computational biophysics

Park Yoonkyung, Chosun University, College of Natural Science, Department of Biomedical Science, Dong-Gu, Korea, Republic of
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