DESCRIPTION

BBA Bioenergetics covers the area of biological membranes involved in energy transfer and conversion. In particular, it focuses on the structures obtained by X-ray crystallography and other approaches, and molecular mechanisms of the components of photosynthesis, mitochondrial and bacterial respiration, oxidative phosphorylation, motility and transport. It spans applications of structural biology, molecular modeling, spectroscopy and biophysics in these systems, through bioenergetic aspects of mitochondrial biology including biomedicine aspects of energy metabolism in mitochondrial disorders, neurodegenerative diseases like Parkinson’s and Alzheimer’s, aging, diabetes and even cancer.

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AUDIENCE

Biochemists, biophysicists, cell biologists and biomedical scientist interested in the structures, mechanisms and consequences of cellular energy metabolism.

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Masamitsu Futai, Iwate Medical University, Iwate, Japan
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Niels-Göran Larsson, Max Planck Institute (MPI) for the Biology of Aging, Köln, Germany
Mitochondria, mitochondrial disease, mtDNA, mitochondrial transcription, mitochondrial translation
Bernard Lemire, University of Alberta, Edmonton, Alberta, Canada
C. elegans, mitochondria, aging, bioenergetics

Fraser MacMillan, University of East Anglia, Norwich, UK
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Christopher Moser, University of Pennsylvania, Philadelphia, Pennsylvania, USA

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BBA Bioenergetics covers the area of biological membranes involved in energy transfer and conversion. In particular, it focuses on the structures obtained by X-ray crystallography and other approaches, and molecular mechanisms of the components of photosynthesis, mitochondrial and bacterial respiration, oxidative phosphorylation, motility and transport. It spans applications of structural biology, molecular modeling, spectroscopy and biophysics in these systems, through bioenergetic aspects of mitochondrial biology including biomedicine aspects of energy metabolism in mitochondrial disorders, neurodegenerative diseases like Parkinson's and Alzheimer's, aging, diabetes and even cancer.

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