Journal of Molecular Recognition

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Aims & Scope

Journal of Molecular Recognition (JMR) publishes original research papers and reviews describing molecular recognition phenomena in life sciences, covering all aspects from biochemistry, molecular biology, medicine, biophysics to computations, and supporting the development of new drugs and new vaccines. JMR is a subscription journal, but it allows and encourages authors to pay and make articles open access.

Biochemistry, molecular biology and medicine define the systems in which molecular recognition processes are observed. Molecular recognition happen as non-covalent specific interactions between two or more biological molecules, molecular aggregates, cellular modules or organelles, exemplified by receptor-ligand, antigen-antibody, DNA-protein, sugar-lectin, just to mention of few of possible interactions. The focus is on studies that aim to achieve a complete description of recognition sites in terms of structure, dynamics and activity. Typical techniques would include synthesis of topological mimics, site directed mutagenesis or molecular imprinting.

Biophysical Methods allow for the quantitative measurement of molecular interactions. Specific methods such as AFM, Optical Tweezers, SPR, Biosensors and Microcalorimetry, and the range of analytical methods such as NMR, MRI, MS, GC, LC, HPLC, PET, Crystallography and all hyphenated methods may be used to establish the mechanisms, dynamics and forces of molecular recognition processes.

Computational Methods help the molecular modeling, prediction, simulation and molecular design of molecular recognition and docking processes and the understanding at a molecular level can be aided by theoretical approaches, such as electrostatic analysis, molecular dynamics and free energy simulations.

JMR supports the research community by close cooperation with a range of societies and series of conferences, such as Affinity (organized by the International Society of Molecular Recognition), AFM BioMed, Aegean International Conference on Molecular Recognition and MIPS, the Molecular Imprinting Society conferences.