

Invitation to the special issue focusing on D-amino acids and related compounds (*Biochimica et Biophysica Acta*)

To Participants of IDAR 2019 conference:

Biochimica et Biophysica Acta Proteins and Proteomics journal will be publishing a special issue, featuring highlights of the IDAR2019 conference.

The TITLE of the special issue ; ” The significance of D-amino acids in the homochiral world of life”.

SCOPE: The homochirality of the L-amino acids is essential for the development and maintenance of life. D-Amino acids, enantiomers of L-amino acids, are now being reported in the free form as well as in the bound form in peptides, and proteins. Free D-Amino acids play important roles in a number of physiological functions. The enzymes related to the synthesis and metabolism of these D-amino acids present in our living systems. In peptides, D-amino acids are well known as essential amino acid residues of opioid peptides. In proteins, D-aspartate residues increase during aging and they may be a cause of the age-related diseases such as cataract and Alzheimer's diseases. The studies of D-amino acids have been accomplished by the recent improvements in analysis of amino acid enantiomers, which now enable us to detect them even at femtomole levels. D-Amino acids are no longer “unnatural” amino acids. The special issue of D-amino acids in the living organisms will include reviews, overviews and the latest research related to their presence, formation, transport, and degradation. Free D-amino acids including D-serine, D-glutamate, D-aspartate, less common D-amino acids, and the presence of D-amino acids in peptides and proteins will be explored, including their impact on kidney disease, mental health, microbial diversity in a range of organisms. The latest approaches for their measurements and visualization are also highlighted. We hope that the scientists of life science, chemistry, medicine, pharmacology, agriculture, food chemistry, and computational science who specialize in D-amino acid research, will contribute to the special issue. Especially, we look forward to receiving the articles of the invited speakers of IDAR 2019.

Please submit a review or original research article for this issue. The manuscripts will be subjected to the review process as regular manuscript submissions to BBA Proteins and Proteomics.

The submission period: from 1 December, 2019 to 29 February, 2020.

Please send the tentative title, the list of authors and the type of paper (original research paper or review) before October 30, 2019.

Tentative title:

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Sincerely,

Guest editors of the special issue:

Allesandro Usiello, Hiroshi Homma, Kenji Hamase, Jonathan Sweedler and Noriko Fujii