



# 第 376 回 つくば分子生命科学セミナー

TSUKUBA MOLECULAR LIFE SCIENCE SEMINAR

演題 : The Bioinorganic Chemistry of Aluminium

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日時 : 2013 年 7 月 18 日 (木) 17:00-18:30

会場 : イノベーション棟 1 階 105 号室

要旨 :

The presentation gives a review on the importance of distribution of Al in biological fluids primary in the lights of the works of the author in Al chemistry. It starts with studies of interactions of Al(III) with small biomolecules, such as aliphatic and aromatic hydroxycarboxylic acids, inorganic and organic phosphates. A significant part of this review deals with the problems of description of the biospeciation of Al(III) in serum, where besides the thermodynamic conditions the role of time is also considered in the case of this sluggish metal ion. The Al(III) complexes of the other large group of biomolecules, proteins and their building blocks (oligo)peptides and amino acids are also discussed, where the role of the type of the side chain donors and the extent of preorganisation are considered in the efficiency of metal ion binding. The application of low molecular mass chelator molecules in restoring the dysfunctioning metal ion (including Al(III)) homeostasis in the treatment of Alzheimer's disease is also discussed.

本セミナーは、人間総合科学研究科「医学セミナー」の単位に換算されます。

また TSMM セミナーは、医科学セミナーII に関連したセミナー(世話人:久武 幸司)でもあります。

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