



Kemijski inštitut  
Ljubljana  
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## VABILO NA PREGLOV KOLOKVIJ / INVITATION TO THE PREGL COLLOQUIUM

### **Prof. Kensuke MIYAKE**

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**Sreda / Wednesday 24. 06. 2015, ob / at 13:00**

**Velika predavalnica Kemijskega inštituta / Lecture Hall at the  
National Institute of Chemistry; Hajdrihova 19, Ljubljana**

## **Nucleic Acid Recognition by Toll-like receptors**

The Toll family of receptors has critical roles in microbial recognition and activation of defense responses. Nucleic acid (NA) is a major Toll-like receptor (TLR) ligand. TLR3, 7/8, and 9 reside in intracellular organelle and sense double strand (ds) RNA, single strand (ss) RNA, and ssDNA respectively. NA-sensing TLRs respond to not only microbial but also self-derived NA, and have been implicated in a variety of autoimmune diseases. To understand a mechanism behind the pathogenic role of NA-sensing TLRs in autoimmune diseases, it is important to understand how NA is sensed by TLRs. We here focus on recent progresses on the structural bases of NA recognition by TLR8 and TLR9 and on the role of NA degradation in NA-sensing by TLRs.

**Vljudno vabljeni! / Kindly invited!**

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