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Structural analysis of tegumental allergen-like proteins from *Schistosoma mansoni*

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Schistosomiasis (or bilharzia) is the most common cause of death from a parasitic disease after malaria. The disease can be treated effectively with the drug praziquantel (PZQ). The tegumental allergen-like (TAL) proteins from *Schistosoma mansoni* (SmTAL) are part of a family of calcium binding proteins found only in parasitic flatworms. These proteins have attracted interest as potential drug or vaccine targets, yet comparatively little is known about their biochemistry. For elucidating the exact mechanism of drug-interaction with tegument associated proteins from parasites (TALs), here, we had grown the suitable crystals of TALs from *Schistosoma mansoni*. The crystals were diffracted at 2.1 Å and 2.5 Å at synchrotron radiation, respectively. The spacegroup of smTAL1 and smTAL2 are hexagonal system (P64 and P6422), respectively. They consist of two domains, calmodulin-like (EF hand) and dynein-like (DLC domain). We will discuss the difference between smTAL1 and smTAL2.

Recent Publications

- P Steinmann, J Keiser, R Bos, M Tanner and J Utzinger (2006) Schistosomiasis and water resources development: Systematic review, meta-analysis and estimates of people at risk. Lancet Infect. Dis. 6(7):411e425.
- J Utzinger, S L Becker, S Knopp, J Blum, A L Neumayr, J Keiser, C F Hatz (2012) Neglected tropical diseases: Diagnosis, clinical management, treatment and control. Swiss Med. Wkly. 142:w13727.
- D Cioli, L Pica-Mattoccia, A Basso and A Guidi (2014) Schistosomiasis control: Praziquantel forever? Mol. Biochem. Parasitol. 195:23e29

Biography

Sulhee Kim is a PhD student at Biosystems & Biotechnology, Department of Korea University in South Korea. Recently, she have published more than 5 papers in reputed journals, such as Autophagy, Nucleic acids research and so on.

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