Seminars in Zoophysiology at Aarhus University

Hydrogen sulfide: biochemistry of a poisonous signaling molecule

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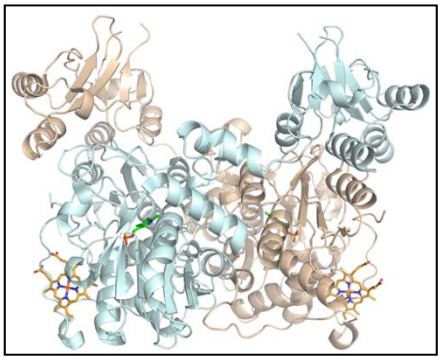
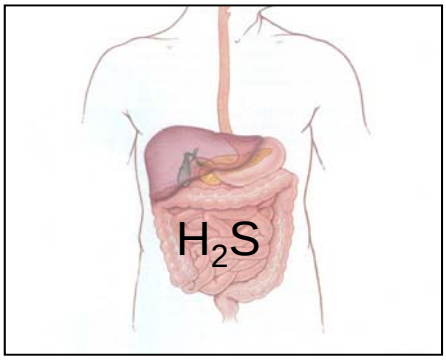
Merely considered as a toxic compound in the past, hydrogen sulfide (H_2S) together with NO and CO is currently viewed as a gaseous signaling molecule ('gasotransmitter'), playing a central role in mammalian physiology and patho-physiology. A functional crosstalk between the three gasotransmitters has been assessed, yet the molecular mechanisms underlying such an interplay are only partly understood. Endogenously synthesized by enzymes in the transsulfuration pathway, H_2S is catabolized by a mitochondrial enzymatic pathway coupling the breakdown of H_2S to energy production. This talk will focus on the role of cystathionine beta-synthase, a major source of H_2S, in the crosstalk between gasotransmitters, and on the effects of H_2S on cellular respiration.





Friday June 15th 2018 at 11.15
Seminar room at Zoophysiology