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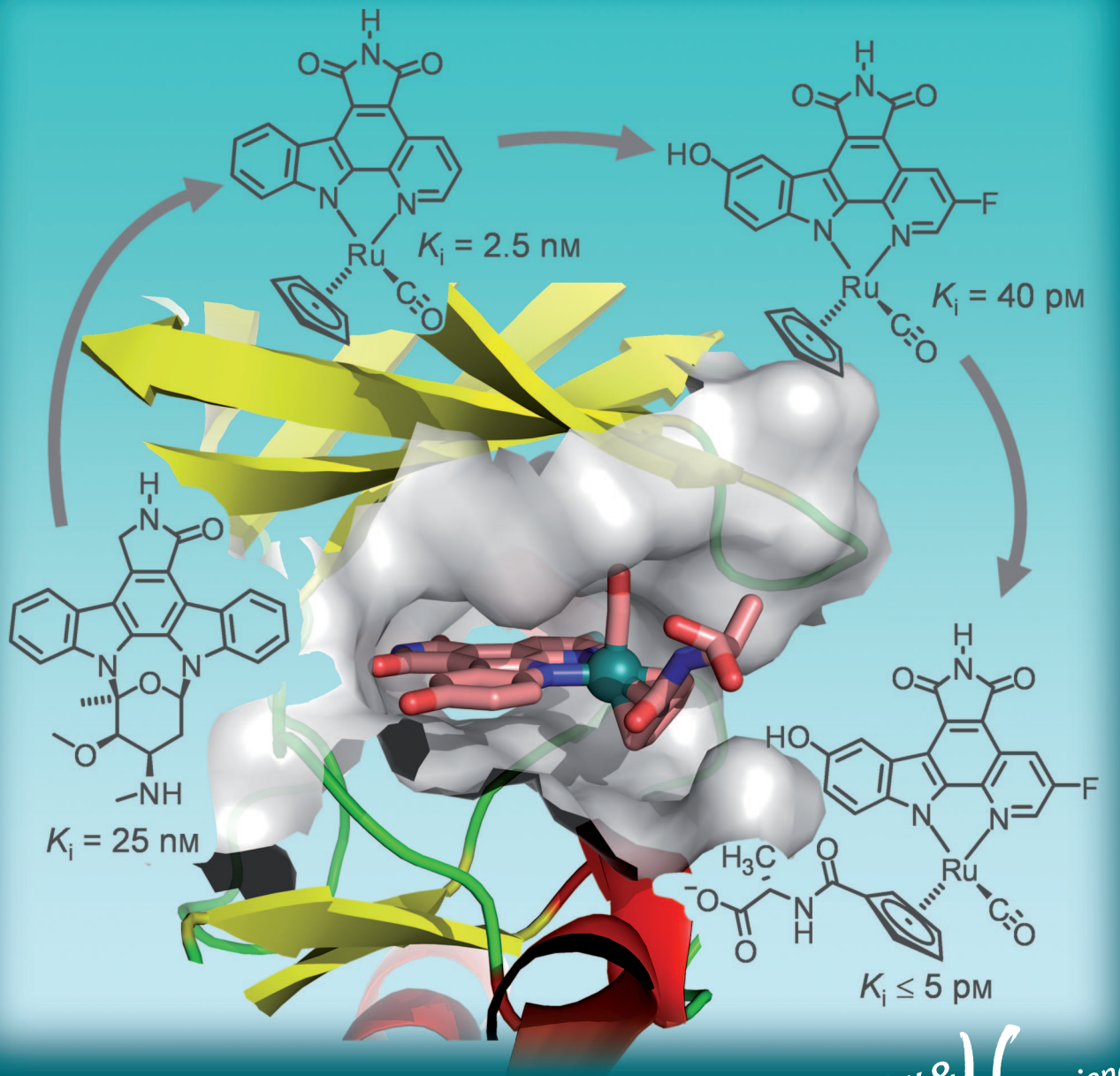

18/2008

Chemistry & Life Sciences

Minireviews: Chemical Dissection of Proteome Function
(H. Ovaa)
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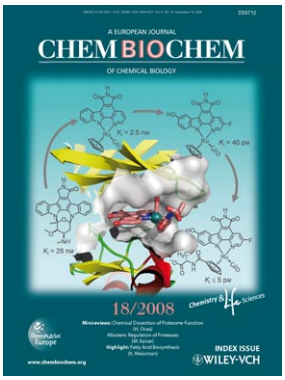
Cover Picture



G. Ekin Atilla-Gokcumen, Nicholas Pagano, Craig Streu, Jasna Maksimoska, Panagis Filippakopoulos, Stefan Knapp, and Eric Meggers*

The cover picture shows the binding of a ruthenium half-sandwich complex to the ATP binding site of glycogen synthase kinase 3 (GSK-3) and how its structure and potency evolved from a brief structure–activity relationship. With a binding constant (K_i) of, at most, 5 pM, this organometallic compound is several orders of magnitude more potent than the natural product staurosporine, which itself served as an inspiration for the design. The crystal structure of the organoruthenium inhibitor with GSK-3 demonstrates that the metal itself is not involved in any direct interactions with the active site of GSK-3, but solely serves as a structural center. Further details can be found in the article by E. Meggers, et al. on p. 2933 ff.