



GESELLSCHAFT DEUTSCHER CHEMIKER
ORTSVERBAND SIEGEN

Ankündigung

Am Dienstag, **21. Mai 2019**, spricht um **16:30 Uhr**
im Hörsaal AR-F 002, Department Chemie und Biologie

Prof. Dr. Ulrich Baumann
Universität zu Köln

über das Thema

***„How Serpins fold collagen: Structural insights into
HSP47, a collagen-specific (?) chaperone“***

Kaffeerunde ab 16 Uhr im Foyer des Hörsaals AR-F 002.

Alle interessierten Kolleginnen und Kollegen, Mitarbeiterinnen und Mitarbeiter
und Studierende sind zu diesem Vortrag herzlich eingeladen.
Gäste sind herzlich willkommen.

Der Ortsverbandsvorsitzende
PD Dr. Stephan Bäurle
Tel. 0271 740-4025



Prof. Dr. Ulrich Baumann

How Serpins fold collagen: Structural insights into HSP47, a collagen-specific (?) chaperone

The endoplasmic reticulum resident chaperone HSP47 is essential for proper formation of the collagen triple helix. HSP47 has a number of unique properties: It is specific for collagens (or at least was thought to be); its client binding and release cycle is not governed by ATP binding/hydrolysis but rather by the pH shift occurring on the travel from the ER to the Golgi compartment; and its expression levels parallel the amount of collagen being synthesized, thus meaning it is upregulated in all kinds of fibrotic diseases. The talk will cover structure-function relationships of HSP47: the molecular details of its interaction with its clients, its mechanism of pH-mediated client release, a closer examination of the client repertoire, an attempt to identify specific small-molecule inhibitors, and the effects of a keratinocyte-specific knockout.