



---

## Structure of active coagulation factor XIII published – milestone on the way to safe anticoagulation.

---

Darmstadt, October 14<sup>th</sup> 2013

Zedira, in cooperation with the group of Prof. Gerhard Klebe in Marburg, reported the first crystal structure of coagulation factor XIII in the active conformation (Factor XIIIa). The article is now published in *Angewandte Chemie International Edition* and provides a proprietary high-resolution structure of Factor XIIIa in complex with the inhibitor ZED1301 serving as lead structure. The data are of enormous value for structure based drug design.

Direct acting Factor XIIIa-blockers may provide a novel and safe option for preventing thrombotic events. Such inhibitors would not impair the thrombin level or primary clot formation by platelet activation, but would effectively reduce the mechanical stability and half-life of clots, thereby accelerating fibrinolysis. This approach has the potential of overcoming the apparent strong link between anticoagulation and life threatening bleeding tendencies that limit the use of anticoagulants today.

In conclusion, Zedira has further strengthened its leading technological position with this cutting edge scientific publication. The company emphasizes its claim of being a preferred partner for the established pharmaceutical industry.

### About Zedira

The Darmstadt-based biopharmaceutical company focuses on the transglutaminase family of enzymes. Based on its patented family of low-molecular weight transglutaminase blockers, Zedira is establishing an active ingredient pipeline. Drug candidate ZED1227 for the indication celiac disease has been successfully out licensed to Dr. Falk Pharma in 2011. As an area of secondary indication Zedira is working on new approaches to thrombosis prophylaxis. The company develops, produces and markets products for research and development as well as for diagnostics. The research was supported by a grant of the German Federal Ministry of Education and Research (BMBF, FKZ 0316030).

---

The press release is published by:

#### Zedira GmbH

Roesslerstr. 83  
64293 Darmstadt  
Germany

Phone: +49 6151 3251-00

Fax: +49 6151 3251-19

Web: [www.zedira.com](http://www.zedira.com)

E-mail: [contact@zedira.com](mailto:contact@zedira.com)

© 2013, Zedira GmbH

We happily provide illustrative images upon request.