# New publication - Attana’s technology was used to optimize affinity and efficacy of an antibody fragment for treatment of inflammatory diseases

A new paper has been published in mAbs by Prof. Konterman and co-workers at University of Stuttgart. This work is in the same project as the recent publication.The aim of this study was to extended serum half-life, increase affinity and improved efficacy. Attana's QCM technology was used to optimize the specific interaction properties of the antibody fragment.

Tumor necrosis factor (TNF) plays a central role in the immune system, especially during inflammation and infection. Dysregulated expression of TNF is associated with severe inflammatory conditions and has been reported to be involved in the development of diseases such as type II diabetes, Crohn’s disease and rheumatoid arthritis.

In this study Prof. Kontermann and coworkers applied affinity maturation and re-engineering of humanized variable domains to generate a panel of monovalent Fab derivatives. In order to improve pharmacokinetic properties, several Fab-derived molecules were generated, including a PEGylated Fab, a mouse serum albumin fusion protein, a half-IgG with a dimerization-deficient Fc, and a newly designed Fv-Fc format. Among these derivatives, one displayed the best combination of improved pharmacokinetic properties and antagonistic activity, thus representing a promising candidate for further clinical development. Attana´s QCM technology has been used to characterize the interaction to select and optimize the most potent Fab-molecule.

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The Board of directors for Attana consider that the information in this press release is not likely to have a significant effect on the share prices, but is of general interest for the shareholders and hence should be communicated.

Attana was founded in 2002 with the vision of *in-vitro* characterization of molecular interactions mimicking *in-vivo* conditions. Since then, Attana has developed proprietary label free biosensors for biochemical, crude, sera, and cell-based assays. Attana’s products and research services are used by Big Pharma, biotech companies and academic institutions within the life sciences. To learn more about Attana’s contract research services and our label free cell-based biosensors, please visit www.attana.com or contact sales@attana.com.