

PA401 Product Profile

• Summary:

PA401 is an anti-inflammatory product in pre-clinical development

• Origin

PA401 is a modified version of human IL-8, derived from ProtAffin's CellJammer® discovery technology

• Mechanism of Action

Increased binding affinity to disease associated glycosaminoglycans (GAGs). Coats inflamed endothelium with inert layer of protein

• Pharmacology

Potently suppresses neutrophil infiltration to the site of inflammation

• Manufacturing

Non-glycosylated protein produced by E-coli fermentation as 66 aa protein

• Indications

Ischemia/reperfusion injury in kidney transplant and RA

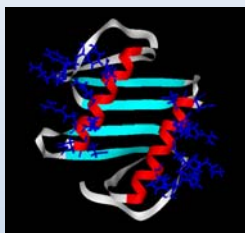
• Development Stage

Early pre-clinical development. First tox study completed. GMP manufacturing starting Q1 2008. Phase I planned Q2 2009.

January 2008

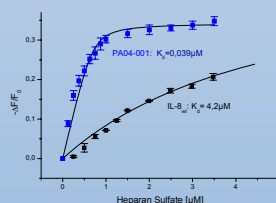
PA401 Overview

PA401 (previously called PA04-001) is ProtAffin's most advanced product candidate. It is a potent anti-inflammatory biological product based on human interleukin-8 (IL-8). Using our CellJammer® discovery technology, we have converted wild-type IL-8 into a targeted anti-inflammatory product. The novel mechanism of action of P0401 has been thoroughly characterized *in vitro*, in cell-based assays and *ex vivo*.

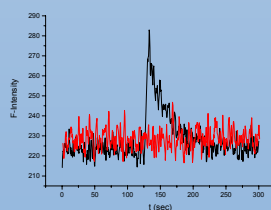


In vitro properties

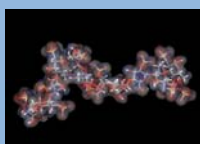
PA401 shows a strongly increased binding affinity to glycosaminoglycan (GAG) structures which drive inflammatory processes. In addition, PA401 is no longer able to activate human neutrophils via their CXCR1 and CXCR2 chemokine receptors.



100x increase in GAG-binding affinity



Knock-out of CXCR1/2-mediated Ca^{2+} release



Mechanism of Action

PA401 binds with high affinity to disease associated GAG structures found on the inflamed endothelium. The product forms a long-lasting inert protein layer on the endothelium which blocks neutrophil infiltration to the site of inflammation. PA401 is the first of a novel class of biologicals: protein-based glycan antagonist.

In vivo efficacy

PA401 has shown strong efficacy in a number of mechanistic models of inflammatory disease and in validated *in vivo* models of inflammatory disease. PA401 exhibits a promising profile in ischemia/reperfusion injury in kidney transplantation, which is currently an underserved and unmet medical need with the potential for Orphan Drug designation. PA401 also has a promising activity profile in models of rheumatoid arthritis.

Outlook

ProtAffin plans Phase I trials of PA401 in 2009. We will initially focus on acute inflammatory disease indications for PA401 in clinical development and then expand the product applications to blockbuster chronic disease markets such as rheumatoid arthritis where IL-8 overexpression is known to play a key role.

Further information on the Company's partnering strategy and confidential data packs are available from the company.

Contact:

Web:
Tel:
E-mail:

ProtAffin Biotechnologie AG
Impulszentrum Graz-West, Reininghausstrasse 13a
A-8020 Graz, Austria
www.protaffin.com
+43 316 382 541
office@protaffin.com