Technology Offer

# B-raf as a novel drug target for treatment of anxiety and depression related disorders

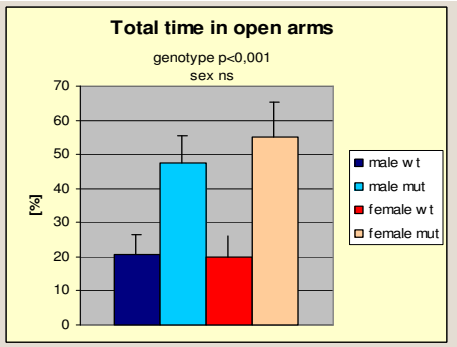
Reference Number: TO 01-00749

ascenion

A Company of the Life-Science Foundation for the Promotion of Science and Research

## Challenge

Depression and anxiety disorders represent some of the most common and proliferating health problems worldwide. Both types are serious medical conditions that affect e.g. about 14% of the European population at some point in their lifetime. In addition, unipolar depression is predicted to become the second most prevalent cause of illness-induced disability by 2020. A better understanding of the pathophysiology of these disorders and the development of novel, improved therapeutics would fulfil a considerable unmet medical need.




Elevated plus maze test

## Technology

Mutations resulting in B-raf activation, have been identified in several cancers including melanoma, colorectal carcinoma, and papillary thyroid carcinoma, and currently, several compounds are undergoing clinical evaluation. Conditional mouse mutants harbouring a genetic inactivation of the B-raf gene in forebrain neurons were tested for behavioural alterations. The mutants mice exhibited a strongly reduced anxiety like behaviour, reduced depression like behaviour and exhibited myo-relaxation without any signs of sedation. Thus, the invention offers an alternative entry point by inhibiting B-raf kinase activity in the brain for the therapy of anxiety and depression disorders. Either known B-raf inhibitors or novel compounds might act as suitable drug candidates for the new treatment option of anxiety and depression disorders. Moreover, for this novel drug target conditional mouse mutants harbouring a genetic inactivation of the B-raf gene in forebrain neurons are available for compound evaluation.

## Commercial Opportunity

The technology is available for licensing or for a further collaborative development.

## Developmental Status

The technology has been successfully evaluated in the specified animal models. For further validation of the therapeutic concept behavioural tests of wt-mice treated with b-raf inhibitors are planned.

## Patent Situation

In June 2007 a priority application was filed in US (US60/941,846) followed by a PCT application (WO/EP2008/004416) in 2008. National phases were entered in US and EP.


Berlin
Braunschweig
Hamburg
Hanover
Munich
Neuherberg

Ascenion GmbH
Herzogstraße 64
D-80803 Munich
T +49 (0) 89 31 88 14 - 0
F +49 (0) 89 31 88 14 - 20
info@ascenion.de
www.ascenion.de