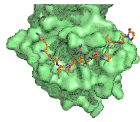


Partnering Opportunity



p38 Inhibitors

The protein **p38** belongs to the family of MAP kinases and is a key regulator of various processes. Diverse extracellular stimuli can activate the signaling cascade controlled by **p38**.

P38 plays an important role in many diseases as for example autoimmune and infectious diseases, neurological pathologies, inflammatory processes and cancer.

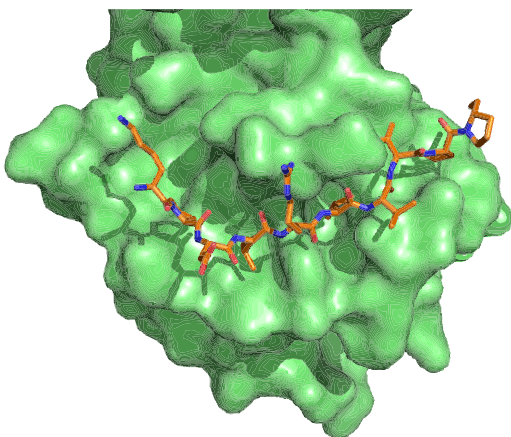
In the last decade more than 50 clinical trials sponsored by important pharmaceutical companies have studied the clinical efficacy of **p38** inhibitors. In some cases these projects have been abandoned due to the low specificity and high toxicity of the compounds.

New Approach

Many of the inhibitors that have failed were targeted to the ATP binding competition. To solve this problem, Dr. Federico Mayor and Dr. Cristina Murga's group has developed a new strategy to improve specificity through allosteric regulators. Specifically, they have discovered and patented a new mechanism of inhibition of **p38** MAPK based on the effect of phosphorylation on the kinase docking groove by the kinase GRK2.

From this new **p38** MAPK site, two strategies have been set up:

- Therapeutic peptides from natural ligands.
- Virtual screening.



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Partnering Opportunity



Patent Status

- **Drug target - EP granted:** NEW PHOSPHORYLATION SITE OF MITOGEN-ACTIVATED PROTEIN KINASES, MODIFIED PROTEINS AND APPLICATIONS - EP1899461 (B1).
Priority date: 10/06/2005
- **Therapeutic Peptide:** p38 inhibitor peptides and applications. P201031673.
Priority date: 12/11/2010
- Lead compounds patent ongoing.

Looking for

- Licensing agreement.
- Know-how transfer agreement.

Product Profile

Attribute	Base case	Upside
Compound	Peptide	+ Small molecule (lead under patent writing)
Efficacy	vs. canonical inhibitor IC50 - 1µM	
Indication	Inflammation, analgesia, other	Potential other autoimmune, RA PoC pending
Safety	No evidence of toxicity in vivo - 2µg MTD ongoing	
Drugability	Half-life - hours	Sustained effect > 4 days intrathecal
CoG	Peptide Synthesis	Just 9 aa
Patent Expiry	Target 2025 Compound 2030 worldwide	+ Extensions

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