



Analgesics for Inflammatory Pain (20130119, Dr. Philip Portoghese)

IP Status: Issued US Patent; **Issued Patent No.** 9,981,043

More Potent Analgesics for Inflammatory Pain

An analgesic has been synthesized that's been proven to reduce post-operative pain, neuropathic pain, and pain from burns, spinal injuries and terminal cancers. There was no perceivable tolerance displayed in mouse model in vivo studies, while inflammatory pain was effectively reduced. This synthetic analgesic is more potent than other opioid analgesics due to simultaneous activation of opioid pathways and blockage of hyperalgesia caused by metabotropic glutamate-5 receptor signaling. The analgesic has widespread applications in inflammation reduction and pain treatment.

Technology ID

20130119

Category

Life Sciences/Pharmaceuticals

Gap Funding/Life Sciences

Gap Funding/Medical Tech

Learn more



MN-IP Try and Buy

Try

- Trial period is up to 24 months
- Trial fee is \$0 for 12 months, \$5,000 for second 12-month period
- Trial fee is waived for MN companies or if sponsoring \$50,000+ research with the University
- No US patent expenses during trial period

Buy

- \$25,000 conversion fee (TRY to BUY)
- Royalty rate of 3% (2% for MN company)
- Royalty free for first \$1M in sales

Limitations of Morphine and Currently Available Pain Killers

Current pain treatments rely upon analgesics such as morphine, which can be habit forming and develop tolerance by the body, requiring increased dosages and extended use in order to be effective. Morphine and synthetic opioids are marginally effective or become ineffective, particularly upon chronic administration, in treating certain spinal injuries, neuropathic pain, burns, inflammation, post-operative pain, and pain caused by terminal cancers. There is a prevalent need for the development of potent, effective analgesics that are able to treat these injuries and illnesses without dependency and tolerance.

BENEFITS AND FEATURES OF POTENT ANALGESICS FOR INFLAMMATORY PAIN:

- The body does not develop tolerance to the drug, making it a viable alternative to opioids that require increased doses over time
- Able to reduce and inhibit neuropathic pain, post-operative pain, and pain in burns, spinal injuries and inflammation not usually treatable with morphine or other opioids
- Synthetic analgesic is more potent and effective than other opioid analgesics

Fulfillment Details Licensee will receive rights to practice the intellectual property (patent application) for the purposes of developing and manufacturing a commercial product.

Phase of Development In vivo animal studies

Researchers

Philip S. Portoghese, PhD

Distinguished Professor, Medicinal Chemistry, College of Pharmacy

[External Link](http://www.pharmacy.umn.edu) (www.pharmacy.umn.edu)

Eyup Akgun, PhD

Research Associate Professor, Medicinal Chemistry, College of Pharmacy

[External Link](http://www.pharmacy.umn.edu) (www.pharmacy.umn.edu)