

SP-SAP Drug Development Update

Substance P-Saporin (SP-SAP) is a drug candidate that eliminates the spinal cord neurons that send the chronic pain signal to the brain. SP-SAP has been tested in a variety of animal models and proven effective in permanently eliminating the perception of chronic pain. ATS has completed extensive preclinical studies, a GLP toxicology study, and a safety study. SP-SAP is currently being used in a veterinary trial in companion dogs who are suffering from bone cancer. We are hopeful that treatment with SP-SAP will allow for the reduction of opioid administration and restore a better quality of life to these beloved pets.

The ultimate goal is to have SP-SAP approved as a chronic pain drug for humans. ATS plans to meet with the FDA in the next few months to see what final steps are necessary to begin clinical trials. This meeting will determine any additional testing that is needed and will outline the parameters of patient participation and monitoring in a clinical trial. The FDA has recommended that the first population of patients be terminal cancer patients who are non-responsive to opioid treatment. These needy patients currently have no options for pain relief and are being sedated as the only recourse. It is our deepest hope that SP-SAP will allow these patients to be restored to a better quality of life in their last few months to share precious moments with their loved ones. We will continue to keep our website updated on this drug development process.

American Association
for Cancer Research
April 14-18, 2007
Los Angeles, CA
Booth #1553



Experimental Biology
April 28 - May 2, 2007
Washington, DC
Booth #215



New Targets: Insula Receptors

In the January 26 issue of *Science* there was an article by Naqvi *et al.* about patients with brain damage to the insula losing their desire to smoke. A podcast interview with Dr. Bechara, one of the authors of the study, ended with him stating that there are a number of known receptors in the brain that should be tested for their association in all kinds of addiction—smoking, drugs, alcohol. He further stated that he also believes this area of the brain may be responsible for eating disorders, such as anorexia and bulimia.

The ATS targeting technology has important applications in identifying potential therapeutic targets in the insula. By using targeted toxins to specifically eliminate cell types in the insula based on their specific receptors, researchers can dissect this complicated system and identify specific cell functions. For example, the insula is known to have mu-opioid receptors. ATS has developed a targeted toxin, dermorphin-SAP (Cat. #IT-12) that specifically eliminates neurons that have the mu opioid receptor.

It is possible that two other ATS products that target transporters will also be helpful in search for potential pharmacological targets. These targeted toxins are anti-DAT-SAP (Cat. #IT-25) and anti-SERT-SAP (Cat. #IT-23).

Targeting Teaser Winners

Congratulations to the puzzle solvers from our last newsletter. Each winner receives \$100 credit towards research product purchases from Advanced Targeting Systems.



Jumbles:

The solution to the puzzle was:

ISOFORM
TRANSGENIC
MUTATION
DERANGED
FOCUS

Answer:

It all began with a ...
"GERM OF AN IDEA"

Winners: Maria Montero- Institute of Medical Biology, Department of Anatomy and Neurobiology, Odense DENMARK * Darlene Martineau- UCSD, Whittier Institute, La Jolla CA * Shawn McClelland- California State University, Northridge CA * Mark Damico- Panacea Pharmaceuticals Inc, Gaithersburg MD * Robert Speth- University of Mississippi, School of Pharmacy, University MS