

## Surfboards for Spinal Cords, September 27 in Ocean Beach, CA

Previously titled the Tony Mezzadri Surf Contest, “Surfboards for Spinal Cords” is a surf contest held at the Ocean Beach Pier, with all proceeds from the event to benefit spinal cord injury and disease research in the laboratory of Dr. Mark Tuszynski at University of California, San Diego. For the fifth year, ATS is pleased to be a supporting sponsor of this event. The cause is important and the event is a fun and entertaining day of music, food, and of course, surfing! Check out the action (including the disabled surfers’ heat) captured by President Doug Lappi.



## ATS Receives \$2.4 M Award for SP-SAP Drug Development

ATS has received a Small Business Innovation Research (SBIR) grant from the National Institute of Mental Health (NIMH) under the program announcement for competing continuation awards for pharmacologic agents and drugs for mental disorders. This three-year, \$2.4 million award is a continuation of Phase II funding for the development of a drug for the treatment of chronic pain. This new program launched by NIMH will allow ATS to complete toxicology studies and to prepare clinical-grade material for use in human trials. For small businesses like ATS, this latest expansion of the SBIR program provides important support at a time when alternative funding is expensive and difficult to find.

The revolutionary chronic pain drug under development is a targeted toxin called SP-SAP — a patented chemical conjugate composed of the neuropeptide Substance P, and the ribosome-inactivating protein saporin. According to Dr. Lappi, President and CSO, “SP-SAP targets delivery of a toxic compound to only those few and specialized nerve cells that transmit pain messages up the spinal cord to the brain. This precise method allows chronic pain to be permanently stopped without affecting normal pain transmission.”

Dr. Lappi explains the urgency and importance of the development of SP-SAP. “Many people suffering from intractable chronic pain have exhausted all of their options. Their quality of life is diminished. We envision in the not too distant future offering a one-time injection that will end the pain. Chronic pain sufferers won’t need to take a pill every day. Advanced Targeting Systems has excellent pre-clinical data that leads us to believe that SP-SAP will be safe and effective and compels us to develop SP-SAP for clinical use.”

“We are fortunate to have a talented and knowledgeable team of collaborators and advisors,” said Denise Higgins, VP

of Business Development. “It’s always good to have outside, expert input on projects of this magnitude, and in a small company of fewer than ten employees, it’s critical.”

The collaborative team is as diverse in their backgrounds as their locations. The idea for SP-SAP was first proposed by Ronald G. Wiley, M.D., Ph.D., scientific advisor to ATS and Chief of Neurology at the Veteran’s Administration Medical Center, and Professor of Neurology and Pharmacology at Vanderbilt University, Nashville, TN. Initial pain model studies were performed in the laboratories of University of Minnesota pain expert, Dr. Patrick Mantyh, a subcontractor on ATS’s

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SBIR Phase II grant. Results of the use of SP-SAP in chronic pain models was reported in a 1997 *Science* issue. Mantyh’s laboratory published a second *Science* article in 1999 to present results demonstrating the long-term elimination of chronic pain with SP-SAP.

Dr. Tony Yaksh, Professor of Anesthesiology and Pharmacology at the University of California, San Diego, is a leading expert on the administration and pharmacology of drugs in the spinal cord and spinal fluid. His associate, Dr. Jeff Allen, completed preliminary toxicology studies with SP-SAP in one of the FDA-required animal models. UCSD will carry out the full toxicology studies with funding from the grant awarded to ATS.