

# Targeting Talk: Saporin Clearance

by Dr. Douglas Lappi

**Q:** I am planning an experiment to investigate the effects of ablation of spinal NK-1r-expressing cells (using intrathecal injection of SSP-SAP). In the first part of the experiment I want to destroy the NK-1r-expressing cells before surgical modification. I am unsure how long after injection of SSP-SAP I should carry out the surgery. I was thinking of carrying out surgery at the two-week time point as in a 2007 Neuroscience paper by Wiley et al.<sup>1</sup> Their immunocytochemistry showed a large reduction in staining at this time point. Any advice you could give me would be much appreciated.

**A:** Two weeks is probably fine. Generally cells begin to lose function at four days, but people wait longer because there is a clean-up by

microglia/macrophage that removes the markers that people use for detection/demonstration of efficacy. Mantyh *et al.* were conservative with a 30-day wait for saporin clearance.<sup>2</sup>

## References

1. Wiley RG, Kline RH, Vierck CJ, Jr. (2007) Anti-nociceptive effects of selectively destroying substance P receptor-expressing dorsal horn neurons using [Sar(9),Met(O(2))(11)]-substance P-saporin: Behavioral and anatomical analyses. *Neuroscience* 146:1333-1345.
2. Mantyh PW, Rogers SD, Honore P, Allen BJ, Ghilardi JR, Li J, Daughters RS, Lappi DA, Wiley RG, Simone DA (1997) Inhibition of hyperalgesia by ablation of lamina I spinal neurons expressing the substance P receptor. *Science* 278:275-279.

Society for Neuroscience  
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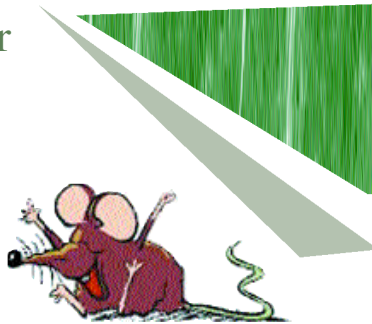
Amer Soc for Cell Biology  
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## Targeting Teaser Winners

**The solution to the puzzle was:**

Jumbles: ARTERY  
PREFRONTAL  
DISRUPT  
ANESTHESIA  
INHIBIT

Answer: She had to . . .NIP IT IN THE BUD



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

WINNERS: Susan Fischer, Univ Texas MD Anderson Cancer Center, Smithville, TX \* Kristen Phend, Univ North Carolina, Cell Biol/Anat, Chapel Hill, NC \* Seto Chice, SUNY HSC, Brooklyn, NY \* S. Peter Bak, Dartmouth Med School, Dept Microbiol & Immunol, Lebanon, NH \* Paulina Gaspar, Laboratoria Meredith Gould, UABC, Ensenada, BC, Mexico

## See you in Washington DC . . . . SfN - Booth 523!

Once again, ATS is reviewing abstracts and will be visiting each poster using our saporin conjugates. After discussion with our scientists and careful consideration, we will award the Poster of the Year. This award honors the scientist's innovation and presentation of results.

You can download a list of abstracts from our website ([www.ATSBio.com](http://www.ATSBio.com)). Click on References, then 2008 SfN Abstracts. Or you can stop by the ATS booth on Sunday, November 16 (9:30-5:00) and pick up an Itinerary. If you currently use targeted toxins or are considering using them in the future, you will find it very helpful to talk to other scientists about their experiences.

When you visit our booth, you can also pick up your 2009 ATS calendar and our earth-friendly canvas bag. And there might just be a special Gangsta surprise, too. We look forward to seeing you soon.

