

Targeting Talk (continued)

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Q: I have been doing research with 192-Saporin for 2-3 years now. I have read in the literature that animals with cholinergic lesions often get sick following surgery and require potatoes, apples, lettuce and saline injections. They may even stop eating or drinking all together. I have followed these practices in the past, but stopped when it didn't seem to make a difference. (I use a very small insignificant dose that is not prone to make animals ill). This is the first death I have had even remotely possibly related to the toxin. In short, the animal lost 64 grams over a period of 2 weeks, and expired 1-2 days thereafter. I weighed her at death and she was 139 grams (91 gram difference from her initial surgery weight). The rats in our colony are fed and given water ad libitum. However, we think that she dehydrated. She was given the same dose (1.1 microliters) as all of the other rats in the experiment. I do have other rats that were given injections from the same lot that do not appear to be sick or losing weight. I'm not sure what you can do with this information, but I would be grateful for whatever help you can offer.

A: In large series of intraventricular injections of 192-Saporin, I have never encountered quite the same sequence of events you describe. Death after intracranial toxin injection can reflect several possible misadventures including but not limited to:

- 1) Contamination of toxin solution with endotoxin resulting in death without awakening from anesthesia (usually due to bacterial contamination from

prolonged exposure of toxin solution to room temperature),

- 2) Fatal intracranial hemorrhage which may result in delayed death depending on location and volume of bleeding,

- 3) Intracranial abscess (extremely unusual) from injection of contaminated solution,

or

- 4) Unrelated bacterial, viral or parasitic systemic disease.

Q: Another one of my 192-Saporin-treated rats is having an adverse reaction, including paralysis of the lower extremities. She has lost 40 grams in the past 3-4 days. Could this be Purkinje cell damage; does that happen after five weeks?

A: Purkinje cell damage after intraventricular injection of 192-Saporin typically is manifest not by hind limb paralysis but rather tremor (shaking) and ataxia (clumsiness, poor balance). At less than lethal doses, 192-Saporin does not produce paraparesis. Something else is going on. Rats develop hind limb paralysis from a variety of toxic or metabolic systemic insults in addition to specific nervous system disorders. The presence of rapid weight loss suggests the rat is systemically ill rather than an effect of a sub-lethal dose of 192-Saporin.

Please send your targeting questions to:
TargetingTalk@atsbio.com

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.

The solution to the puzzle was:

Jumbles: NEUROLOGY INSTRUMENT STAINING WEIGHT GAMETE

Answer: Why the Scientists missed the laboratory presentation — THEY DIDN'T GET THE "MESSAGE"!

WINNERS: Lynn Young, Johnson & Johnson PRD * Bryan Hudson, Washington State Univ * Dr. Richard Robertson, UC Irvine College of Medicine * Bill Goodwin, Univ of Virginia * Key Kang, Raven biotechnologies * Dr. Ruth Stornetta, Univ of Virginia * Carmen C. Diaconu, Institute of Virology * Bob Speth, University of Mississippi * Joseph Menonna, E. Orange VA Medical Center * Dr. Douglas J. Taatjes, Univ of Vermont * Dr. Seto Chice, SUNY HSC at Brooklyn * Dr. Thomas J. Collins, UTMB * Kristen Phend, Univ of North Carolina * Sela James, Catholic Univ of America * Bruce Pappas, Carleton Univ * Heidi Day, Univ of Colorado

