

## Targeting Topics: Recent Scientific References

(continued from page 3)

### Immunotoxic catecholamine lesions attenuate 2DG-induced increase of AGRP mRNA.

Fraley GS, Dinh TT, Ritter S  
*Peptides* 23(6):1093-1099, 2002

The authors investigated mRNA levels of both agouti gene-related protein (AGRP) and neuropeptide Y (NPY) in rats after lesioning the PVH with anti-DBH-SAP (42 ng in 200 nl, Cat. #IT-03). The results show that the increase in AGRP mRNA levels due to 2DG administration was completely blocked.



### Cholinergic depletion by IgG 192-saporin retards development of rat barrel cortex.

Zhu XO, de Permentier PJ, Waite PM  
*Brain Res Dev Brain Res* 136:1-16, 2002

It has been shown that cholinergic afferents from the basal forebrain are necessary for normal cortical morphogenesis. However, the role of these projections in the development of the thalamocortical topographical map has not been investigated. Using the facial whisker barrel field in the rat somatosensory cortex as a development model, the authors administered 192-Saporin to newborn pups (0.1 µg, Cat. #IT-01). The data show a transient delay in the development of the barrel pattern over the first postnatal week.

### Reduced aversion to oral capsaicin following neurotoxic destruction of superficial medullary neurons expressing NK-1 receptors.

Simons CT, Gogineni AG, Carstens MI, Carstens E  
*Brain Res* 945:139-143, 2002

Capsaicin-induced irritation of the dorsal anterior tongue is mediated by nociceptors expressing VR-1 receptors. The role of NK-1 receptor-expressing neurons during the ingestion of capsaicin was examined by injecting 20 µl of 2.27 µM SP-SAP (Cat. #IT-07) into the cisterna magna of rats. Lesioned rats consumed significantly more water containing high concentrations of capsaicin than control animals.

### Spinal Noradrenergic Activation Mediates Allodynia Reduction from an Allosteric Adenosine Modulator in a Rat Model of Neuropathic Pain

Li X, Conklin D, Ma W, Zhu X, Eisenach JC  
*Pain* 97:117-125, 2002

T62 is a thiobene compound that enhances adenosine agonist binding to the A1 receptor. Activation of the adenosine receptor has been effective in several different pain models. The authors used a spinal nerve ligation model for mechanical allodynia to assess T62 efficacy and mode of action. Rats treated with anti-DBH-SAP (4 µg in 5 µl, Cat. #IT-03) experienced no anti-allodynia effects from T62 administration, indicating that modulation of mechanical allodynia by T62 utilizes the spinal noradrenergic system.



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([www.ATSBio.com](http://www.ATSBio.com)) to see a  
complete list of references.

**Congratulations to J.C. Cassel and collaborators for having five scientific publications this past quarter! Listed below are brief summaries of four of these articles. See page 3 for a review of one of them and this issue's cover story for more information about their interesting research.**

### Effects of 192 IgG-saporin on acetylcholinesterase histochemistry in male and female rats.

Galani R, Jeltsch H, Lehmann O, Bertrand F, Cassel JC  
*Brain Res Bull* 58(2):179-186, 2002  
**Male rats were treated with estradiol, and 2-µg i.c.v. injections of 192-Saporin (Cat #IT-01).**

### Selective immunolesions of CH4 cholinergic neurons do not disrupt spatial memory in rats.

Galani R, Lehmann O, Bolmont T, Aloy E, Bertrand F, Lazarus C, Jeltsch H, Cassel JC  
*Physiol Behav* 76:75-90, 2002  
**Rat NBM was lesioned using 0.2 or 0.4 µg of 192-Saporin (Cat. #IT-01).**

### Combined 192 IgG-Saporin and 5,7-dihydroxytryptamin lesions in the male rat brain: a neurochemical and behavioral study.

Lehmann O, Jeltsch H, Lazarus C, Tritschler L, Bertrand F, Cassel JC  
*Pharm Biochem Behav* 72:899-912, 2002  
**Injections of 1 µg per ventricle of 192-Saporin (Cat. #IT-01).**

### 5,7-DHT-induced hippocampal 5-HT depletion attenuates behavioural deficits produced by 192 IgG-saporin lesions of septal cholinergic neurons in the rat.

Lehmann O, Bertrand F, Jeltsch H, Morer M, Lazarus C, Will B, Cassel JC  
*Eur J Neurosci* 15(12):1991-2006, 2002  
**The authors used 192-Saporin, 0.4 µg/side intraseptal (Cat. #IT-01).**