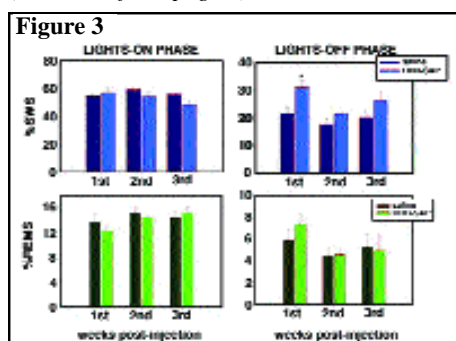


HCRT-SAP Not ANTI-DBH-SAP Produces Sleepiness

(continued from page 2)



REM sleep. This effect was only present during the normal rat active period (night), but not so during the rest period. The sleepiness induced by HCRT-SAP pontine lesions is mainly generated by an increase of the sleep drive, that is, an increase in

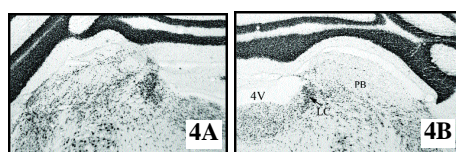


Figure 4. Panel A=saline, Panel B=HCRT-saporin (100 ng/μl, TV=500 nl). Both sections (50 μm=thickness) were immunostained to label the specific neuron's nuclear protein NeuN. Magnification in both cases is 4X. 4V=Fourth ventricle, LC=Locus coeruleus, PB=Parabrachial nuclei.

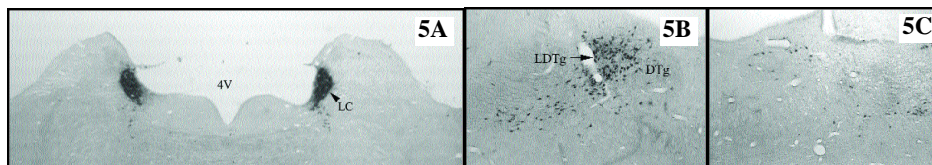
the number of episodes at night ($p<0.05$). Sleepiness was also associated with a significant reduction in the number of NeuN-ir within the parabrachial complex as well as NADPH+ cells in the LDTg (laterodorsal tegmental). Yet HCRT-SAP did not affect DBH-ir (Figs. 4, 5). Our results suggest both parabrachial and LDTg cholinergic neurons, but not noradrenergic LC neurons, express the hypocretin-2 (orexin B) receptor; anti-DBH-SAP only affects noradrenergic LC neurons. Additionally these HCRT-SAP sensitive neurons in the dorsolateral pons seem to be involved in sustaining waking during the normal active period. As a result, the

daytime sleepiness observed in narcoleptic HCRT-deficient subjects could be associated with a lack of excitatory input to parabrachial and LDTg rather than to LC neurons, as has been proposed.

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Figure 5. HCRT-SAP(100 ng/μl; vol=500 nl) spares DBH-IR cells in the LC (A) but destroys NADPH+ cells (cholinergic) in the LDTg (C). (B=saline; C=HCRT-SAP).



Targeting Ticklers

A Brief Guide to Scientific Literature

The following phrases, frequently found in technical writings, are defined below for your enlightenment.

Phrase	Translation
It has been long known	I haven't bothered to check the references
It is known	I believe
It is believed	I think
It is generally believed	My colleagues and I think
There has been some discussion	Nobody agrees with me
It can be shown	Take my word for it
It is proven	It agrees with something mathematical
Of great theoretical importance	I find it interesting
Of great practical importance	This justifies my employment
Of great historical importance	This ought to make me famous
Some samples were chosen for study	The others didn't make sense
Typical results are shown	The best results are shown
Correct within order of magnitude	Wrong
The values were obtained empirically	The values were obtained by accident
The results are inconclusive	The results seem to disprove my hypothesis
Additional work is required	Someone else can work out the details
It might be argued that	I have a good answer to this objection
The investigations proved rewarding	My grant has been renewed

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: RESTENOSIS INJECTION
SEROTONIN PHOTOGRAPH
POWDER

Answer: What to do when the results seem fishy
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