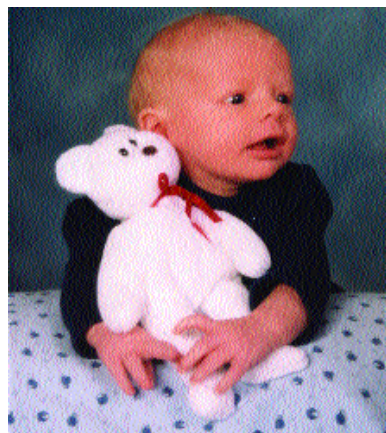


Matthew Kohls Welcomes the Diapered Duo

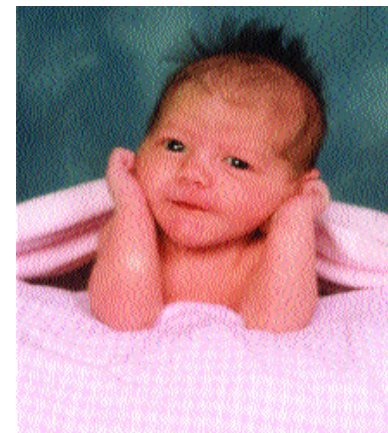
The Kohls welcomed Samuel Jeffrey and Malia Allison into the world on Valentine's Day, February 14, 2002. Sam and Malia continue the family tradition of holiday birthdays; big sister, Sierra Ashlyn, was born on the Fourth of July, 1994. The twins are growing, smiling and ready to rule the world!

Matt is back in the lab here at ATS after taking some time off to lend a hand at home and bond with the babies. Angela (proud mother) has recovered from the birth and is more than thrilled with her two new bundles of joy. Dad, Mom, Sierra and babies are all healthy and happy, if a little short of sleep.



Samuel Jeffrey Kohls
7 lb 11 oz 20 $\frac{1}{2}$ in

**The Kohls family (from left to right):
Matthew, Sam, Sierra, Malia, and Angela.**



Malia Allison Kohls
8 lb 19 $\frac{1}{4}$ in

Upcoming Events

3rd Forum of European Neuroscience (FENS)
Paris France • July 13 - 17, 2002

Experimental Biology
New Orleans, LA • April 20-24
Booth #238

HCRT-SAP Not ANTI-DBH-SAP Produces Sleepiness

(continued from page 1)

saline solution or anti-DBH-SAP (1 mg/mL; vol=80 nL) aimed to the LC nuclei. Afterward, polysomnographic recordings were done across 24 h on the 3rd, 6th, 9th, 12th and 18th days post-injection (12:12h lights on/off). Scoring was made visually on a computer (Icelus software) in 12s epochs for waking, slow wave sleep (SWS) and REM sleep by one technician blind to treatment. ANOVA and t-test with Bonferroni correction (where appropriate) were used to compare changes in sleep parameters. After recordings were done, subjects were sacrificed, brains fixed, removed and sectioned for immunohistochemistry staining for DBH (1:50K). Histochemistry for

NADPH was made as well. A blind-treatment technician counted DBH-ir and NADPH+ cells across mesopontine tegmentum in a 1:5 sections protocol.

The experimental protocol was similar to anti-DBH-SAP lesions for HCRT-SAP (100 ng/mL), except it was microinjected lateral to LC and in larger volume (500 nL). In addition to DBH and NADPH

labeling, brain sections were immunostained for the specific nuclear protein NeuN to outline the cell loss area. In all cases avidin-biotin-DAB method was used to visualize the antigens.

Results. Post mortem analysis revealed anti-DBH-SAP destroyed noradrenergic neurons in the LC but spared NADPH+ cells (Figs. 1,2). The anti-DBH-SAP pontine lesions did not affect sleep either during day or night period (Fig. 3). This suggests noradrenergic LC neurons are not important in maintaining wakefulness. In contrast, HCRT-SAP injections into the dorsolateral pons increased significantly both SWS and

(continued on page 6)

