

### **PATHOLOGIES ASSOCIATED WITH H1 AND H2 HISTAMINE RECEPTORS**

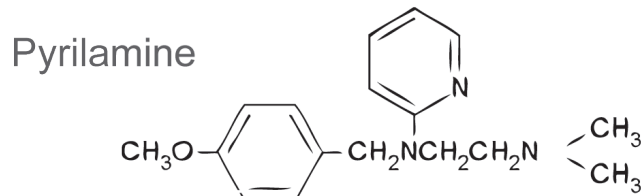
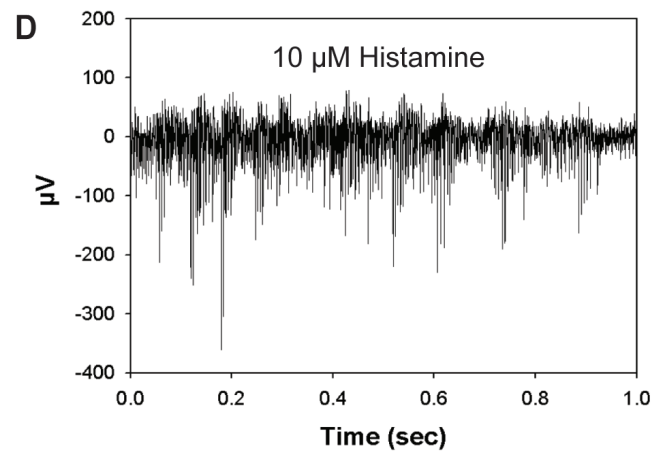
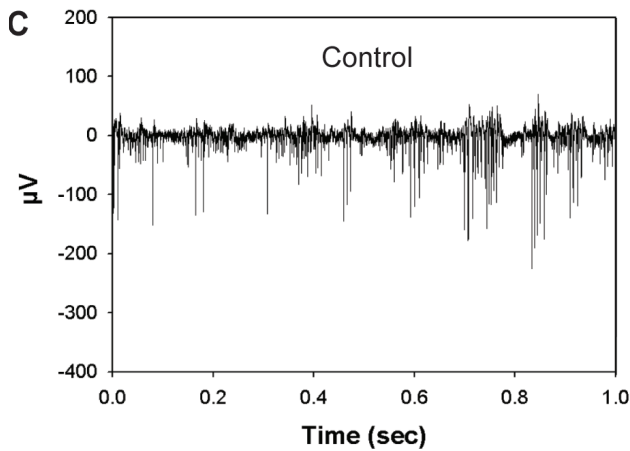
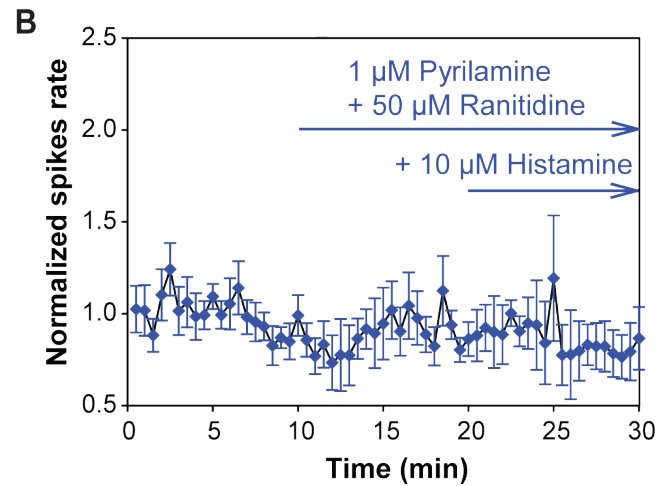
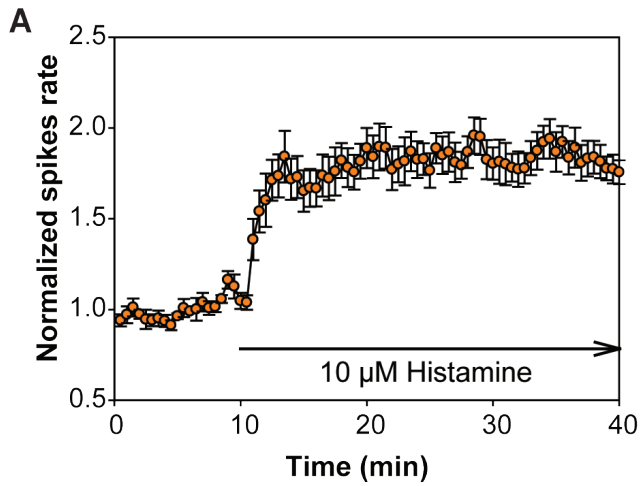
Cognitive Disorders  
Sleep Disorders  
Anxiety  
Pain Perception

### **BIBLIOGRAPHY**

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Selbach O, Brown RE, Haas HL (1997). Neuropharmacology 36:1539-1548.

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**P-013** ● **HISTAMINE RECEPTORS-MEDIATED INCREASE OF CA1 PYRAMIDAL NEURONS EXCITABILITY** ● **PYRILAMINE** ● **H1 AND H2 HISTAMINE RECEPTORS**  
 ● **RANITIDINE** ●



**BIOLOGY**

Histamine modifies excitability of CA1 pyramidal neurons within the hippocampal slice by acting at H1 and H2 receptors. In particular conditions (low Ca /high Mg /high K ), these neurons display spontaneous activity, which is doubled right upon histamine exposure (see panel A). Histamine effect is completely abolished when slices are pre- and co-exposed with H1 and H2 receptor antagonists (i.e. pyrillamine and ranitidine, see panel B). Illustration of CA1 neurons firing activity before and after histamine exposure is presented in panels C and D.

**electrophysiological testing for the CNS**