4th International Meeting on Calcitonin Gene-Related Peptide (CGRP)
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CGRP AS A MIGRAINE INDUCING SUBSTANCE

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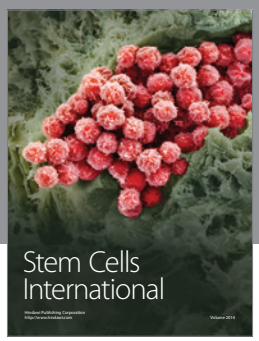
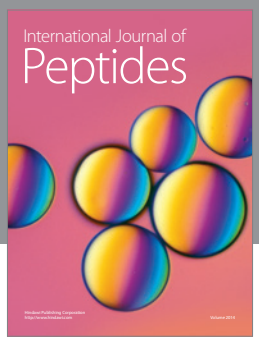
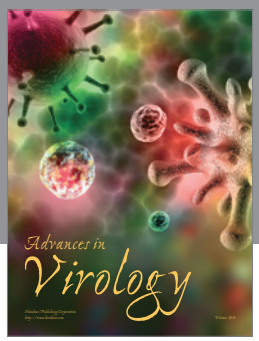
Calcitonin gene-related peptide (CGRP) has been detected in increased amounts in external jugular venous blood during migraine attacks. However, it is unknown whether this is secondary to migraine or whether CGRP may cause headache.

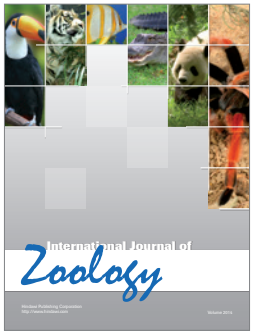
In a double-blind, crossover study the effect of human αCGRP (2 μg/min) or placebo infused i.v for 20 min was studied in 12 patients suffering from migraine without aura. Headache intensity was scored on a scale from 0 to 10.

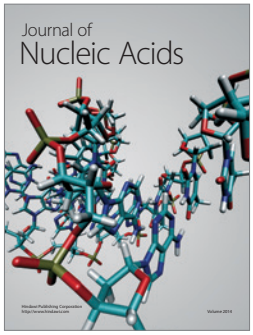
Two patients were excluded due to severe hypotension and one because she had an infection. In the first hour median peak headache score was 1.0 in the hαCGRP group vs. 0 in the placebo group ($p < 0.01$). In the following 11 h all patients experienced headache after hαCGRP versus one patient after placebo ($p = 0.0004$). The median maximal headache score was 4 after CGRP and 0 after placebo ($p = 0.006$). In three patients after hαCGRP but in no patients after placebo did the delayed headache fulfill the IHS criteria for migraine without aura. Since i.v. administration of hαCGRP causes headache and migraine in migraineurs, our study suggests that the increase in CGRP observed during spontaneous migraine attacks may play a causative role.











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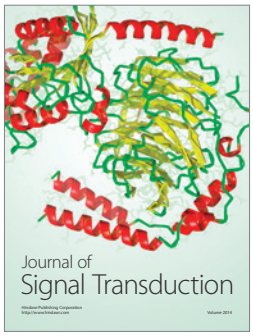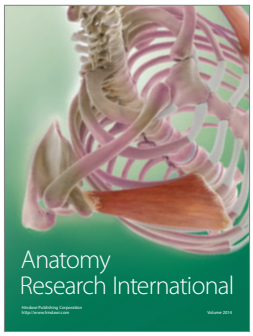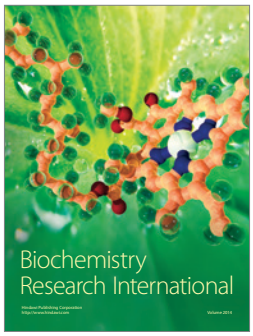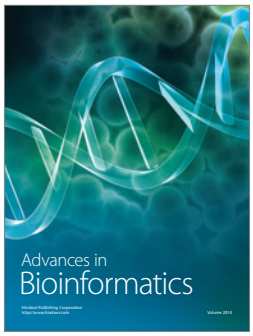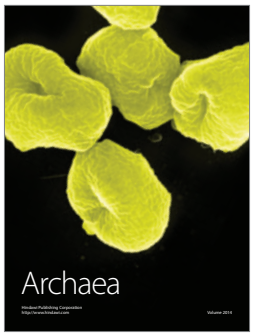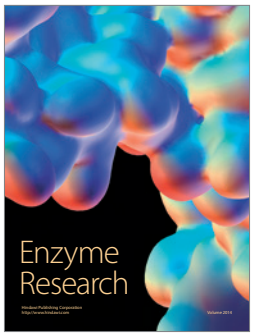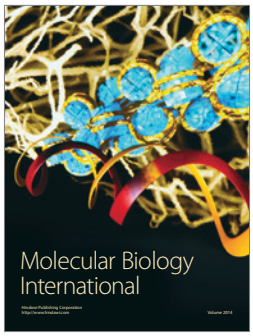
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