



GdT Kennel © « **GOLATIERE DU TREPONT** » GdT Kennel ©
"Élevage de Lagotto Romagnolo - Chiens d'Eau Romagnol"
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The humanity will have to say thanks to Lagotto Romagnolo?

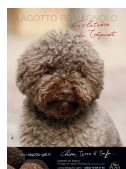
New candidate gene for human benign childhood epilepsies

A new epilepsy gene, LGI2, has been found in the Lagotto Romagnolo dogs, known from their gift for truffle hunting. The gene discovery made by Professor Hannes Lohi and his research group at the University of Helsinki and the Folkhälsan Research Center offers a new candidate gene for human benign childhood epilepsies characterized by seizure remission. The research will be published in the prestigious scientific journal PlosGenetics on 2011 July 28.

Epilepsy is the most common neurological disease in children. It occurs in 0.5 percent of all 2-10 year-old children - during the ages when the development of the nerves in the brain is at its strongest. Childhood epilepsies are characterized by remission: the seizures set in and last for a while before they disappear completely. The mechanisms related to the remission have remained unknown.

The new gene discovery made by the research group of Professor Lohi and colleagues in the Lagotto Romagnolo breed gives us new perspectives into the development of a child's brain and the remission mechanisms in childhood epilepsies. In addition, the identified gene has enabled the development of a DNA test for the Lagotto Romagnolo breed.

This gene discovery is significant for both dogs and humans. Every third Lagotto Romagnolo carries the gene mutation in its genome and we have now developed a gene test to be used by breeders to eliminate the disease from the breed. Furthermore, the gene has not previously been linked to human epilepsies, which makes it a new candidate gene for especially childhood epilepsies, explains Hannes Lohi.



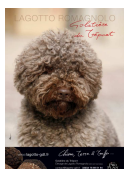
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An epileptic seizure is caused by an electronic disturbance in brain function. Epilepsies form a heterogeneous group of syndromes of the nervous system in which the causes, the age of onset and the treatment vary significantly. Epilepsy is most common in the ends of the age spectrum - childhood and old age.

With this study we gain crucial insight into the pathways and mechanisms that control the development of a child's brain, optimizing its structure for electrical stability and seizure-freedom in the rest of adult life.

This study will open vast avenues of research in uncovering the molecular bases of the transformation of the brain from its immature state in infancy to its maximal abilities in adolescence and early adulthood, says Dr. Berge Minassian, senior co-author of the study and a senior scientist and pediatric epileptologist at The Hospital for Sick Children in Toronto, Canada.

Epilepsy is the most common disease of the nervous system in dogs, and different types of hereditary epilepsy exist in many breeds. Lohi has previously identified the first canine epilepsy gene, EPM2B, in the Miniature Dachshund. The newly identified mutation in the LGI2 gene is the first idiopathic epilepsy gene in dogs.



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