Severe deficiency of the somatotrope GHRH/GH/IGF-1 axis induces a dramatic susceptibility to *Streptococcus pneumoniae* infection

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The question of a physiological role of the somatotrope axis in immunity was reassessed in GHRH-deficient (*Ghrh*<sup>−/−</sup>) mice, a new dwarf mouse model with a severe deficiency of the GHRH/GH/IGF-1 axis.

**Ghrh<sup>−/−</sup> mice: severe deficiency the somatotrope GHRH/GH/IGF-1 axis**

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**Basal immunological phenotype of Ghrh<sup>−/−</sup> mice without and with GH supplementation**

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**Anti-pneumococcal vaccination**

2 ways of vaccination against *S. pneumoniae*

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**Sublethal infection by S. pneumoniae**

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**Characteristics of Ghrh<sup>−/−</sup> immune system in basal conditions: **

- TREC
- naive T cells
- **B** cells.

Therefore, we investigated the **B-dependent** vaccine and immune responses of *Ghrh<sup>−/−</sup>* mice to 2 anti-pneumococcal vaccines and to a sublethal infection by *S. pneumoniae*.