



## MACRILEN™

### Molecule for growth hormone dosage

Growth hormone (GH) deficiency is attributable to a problem with the hypothalamic-pituitary axis, which may be characterised by damage to the hypothalamus or pituitary gland. Before now, there was no straightforward way to regulate the dose of the hormone produced by the pituitary gland, however, Aeterna Zentaris has come up with Macrilen™, an orally ingestible solution.

Carnot Chimie Balard Cirimat Institute

#### Scientific / technological breakthrough

Improving the day-to-day lives of patients with growth hormone deficiency.

Up to now, growth hormone dosage depended on cumbersome and painful solutions (injections, hospital surveillance, etc.) of a highly invasive nature. But now, thanks to Macrilen™, a solution developed by Aeterna Zentaris with the support of the Amino Acids, Heterocycles, Peptides & Proteins team from the Max Mousseron Biomolecules Institute (IBMM), a member of the Carnot "Chimie Balard Cirimat" Institute, patients have witnessed a revolution in their daily lives. Simple oral ingestion of a ghrelin receptor agonist induces GH secretion which can then be measured by a simple blood test.



#### Competitive advantage for the economic stakeholders

Marketed in the US since 2018. JMV 1843, a pseudo-peptide compound, is the fruit of research carried out by the Max Mousseron Biomolecules Institute (IBMM), a member of the "Chimie Balard Cirimat". It has been marketed in the United States by Aeterna Zentaris since the first-quarter of 2018 under the name of Macrilen™. It has obtained a marketing authorization from the FDA for the diagnosis of growth hormone deficiency in adults. This project, which kicked off in 1997 with Europeptides (Euréka EU project No. 1923) is the culmination of a successful public-private partnership.

#### Partnership

- AETERNA ZENTARIS, is a biopharmaceutical company specialising in the development and marketing of treatments in oncology, endocrinology and women's health.