PRESS RELEASE

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World premiere UCLouvain/St. Luc University Hospital

A child's shin bone healed thanks to a 3D bone graft

SUMMARY:

- World premiere in **orthopaedic surgery**: the **3D cell therapy** developed by Novadip Biosciences, a **spin-off of UCLouvain**, has enabled the surgeons of Cliniques universitaires Saint-Luc to **repair the shin bone** of a young patient thanks to **the implant of an 18 cm³ bone graft**
- **Novadip**, a spin-off company from Université Catholique de Louvain (UCLouvain), is at the **forefront** of research in terms of **tissue regeneration** targeting non-union fractures. Its unique 3M³ technological platform has developed a **specific product that allowed avoiding amputation**

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Novadip Biosciences, a spin-off of UCLouvain and St. Luc University Hospital (UCLouvain) achieved a **world premiere in bone reconstruction**. Highly promising results for the **treatment of rare orthopaedic conditions in paediatric patients**.

Case history M., a 5-year-old boy, has congenital pseudoarthrosis of the tibia, i.e. a rare and disabling condition involving a non-healing fracture of the tibia. The child is in the care of Cliniques universitaires Saint-Luc and benefits from an **innovative technology** of the UCLouvain spin-off Novadip: a **3D tissue implant measuring over 18 cm³**. The **graft**, which can be compared to a **sort of plasticine**, is **directly implanted in the non-union fracture**. One year after implantation, the results showed **bone remodelling** sufficient to allow the patient to **walk pain free and without apparent recurrence** of the disease. Today, two years later, the little boy walks normally. The surgery was successful, and it's a **world premiere**!

This **achievement** is the result of a **three-dimensional cell therapy** developed by **Novadip**, at the cutting edge of research in **tissue regeneration**. The objective of the spin-off of UCLouvain is to find **new solutions** for bone tissue reconstruction in **patients for whom no treatment is available**. The scientists bet on the healing of the damaged tissues by restoring their **natural physiology**.

"Novadip Biosciences develops a technology unique in the world, whereby adipose-derived stem cells are stimulated in vitro to create a three-dimensional structure in which they integrate and produce a regenerative environment", explains Dr Denis Dufrane, CEO and co-founder of Novadip Biosciences. "At the request of Prof. Pierre-Louis Docquier of St. Luc University Hospital, we created this implant with specific characteristics that oppose the causes of the disease in this child, while at the same time allowing the regeneration of the lost bone volume. This success is driving us to continue developing this advanced cell therapy treatment, to make it available to other patients in similar situations".

"Critical size, non-healing bone defects are among the most difficult conditions to treat in orthopaedic surgery and sometimes leave doctors with no alternative to amputation", commented Prof. **Pierre-Louis Docquier**, the orthopaedic surgeon who treated the child at St. Luc University Hospital. *"It is highly* ***encouraging to see the impact of this innovative regenerative therapy*** *on this young patient and its potential to provide a new treatment option"*.

*"****Exchanges between clinicians and scientists are essential for the development of therapeutic solutions*** *in critical clinical situations"*, explained Denis Dufrane. *"These results are very exciting for Novadip. We look forward to advancing our clinical studies to generate additional solutions with a view to improve the patients' quality of life".*

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