



# **VEGF-111**

## **as a new therapeutic tool for tendon lesion**

Kaux JF, Drion P, Libertiaux V, Pascon F, Colige A, Le Goff C, Lambert C,  
Nusgens B, Gothot A, Cescotto S, Defraigne JO, Rickert M, Crielaard JM



# Introduction

- **Tendon lesion**

- = one of the **most frequent** pathologies.

- = often becomes **chronic**.

- New treatments → **PRP** → releasing GF.

- **VEGF-A** → induce positive effects on vascular function and **angiogenesis**.

- **VEGF-111** = **biologically active** and **proteolysis-resistant**.

# Methods

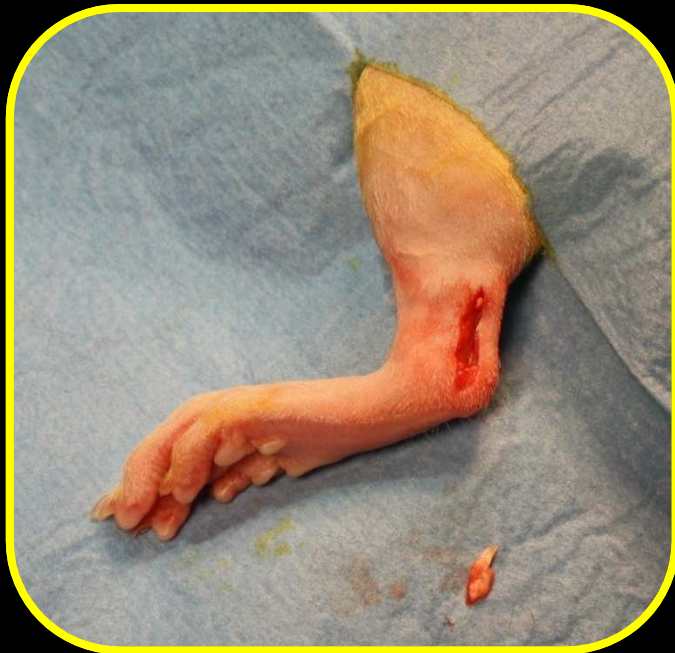
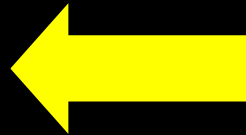
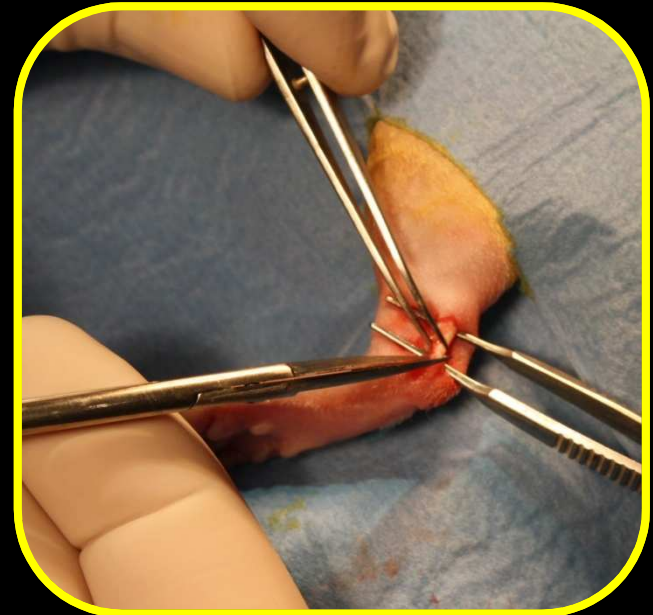
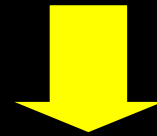
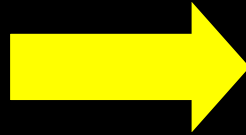
- All experimental procedures and protocols used in this investigation were reviewed and **approved** by the Institutional Animal Care and Use Committee of the University of Liège.

# Methods

**60 rats :**  
**5mm defect** surgically  
induced in the **Achilles**  
**tendons**

*Group A*  
**Control**  
30 rats

*Group B*  
**VEGF-11** treatment  
in situ after the surgery  
30 rats

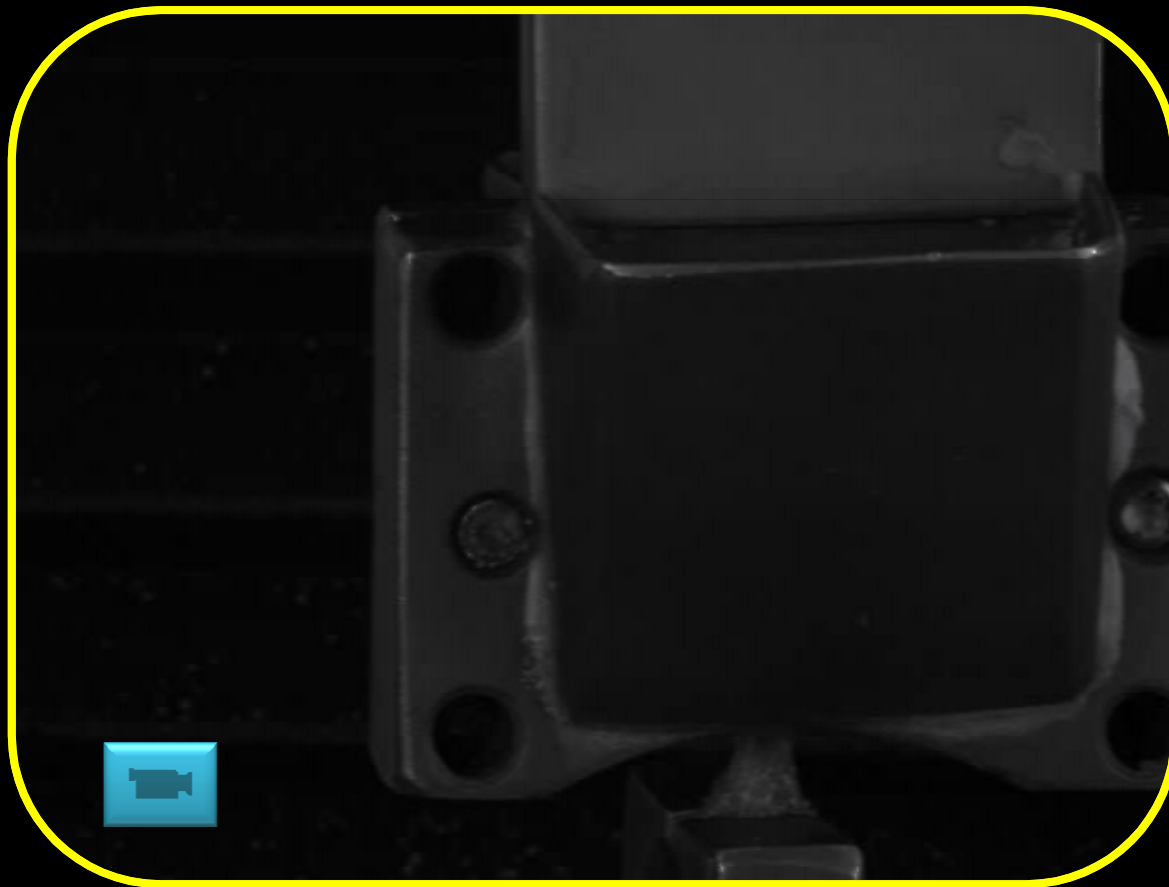


# Methods

- Rats of **group B**: in situ **VEGF-111 injection** (100ng)

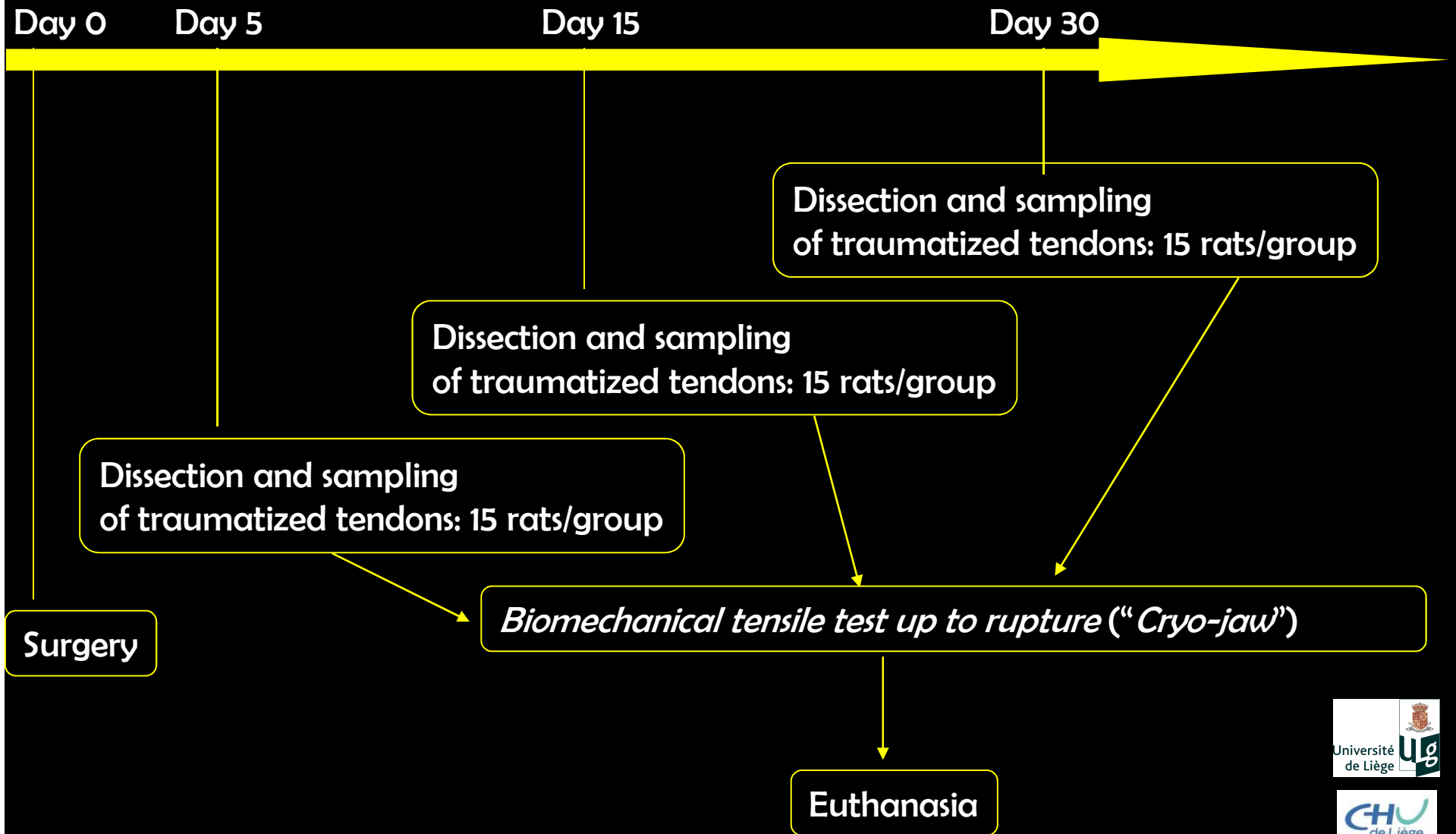


- Then: rats of **both groups** were placed in their cages **without immobilization**.





# Methods

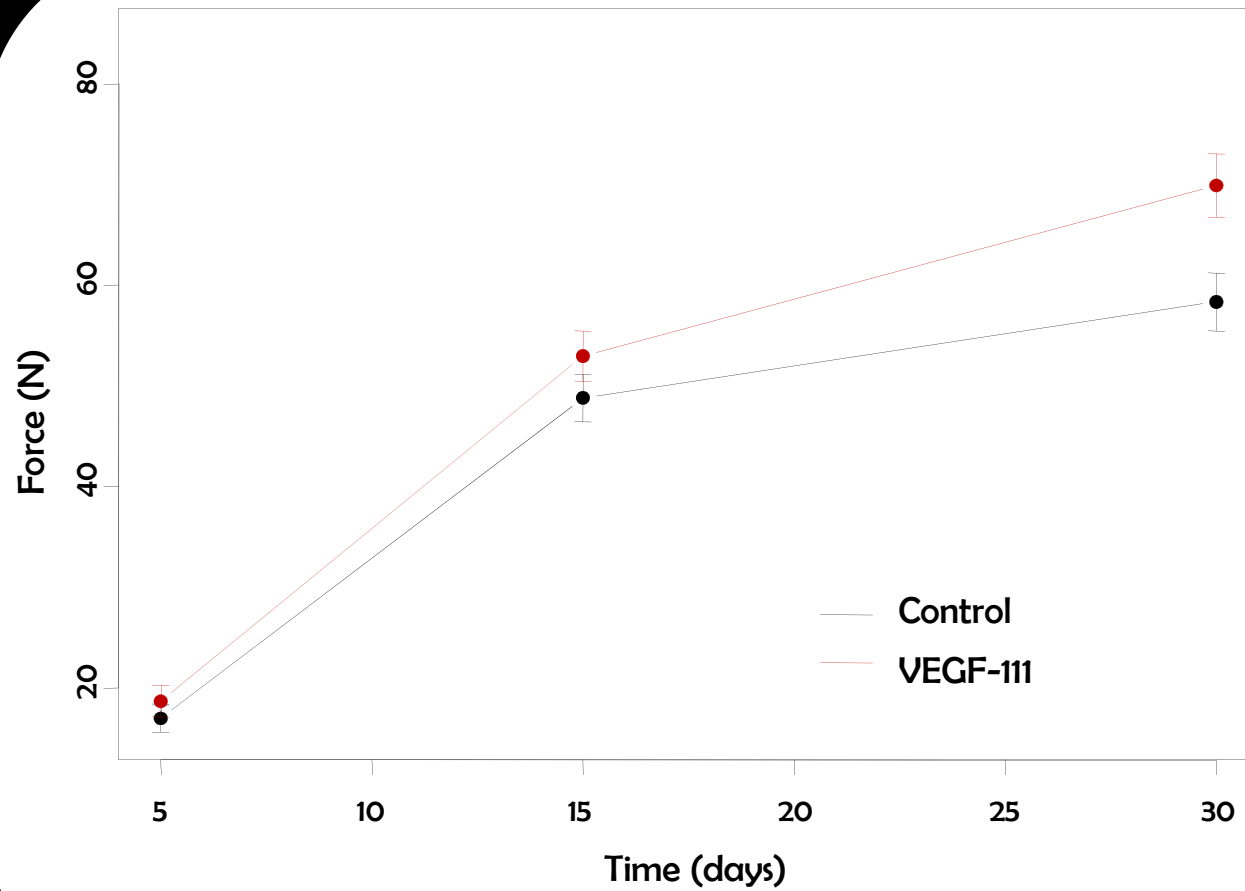




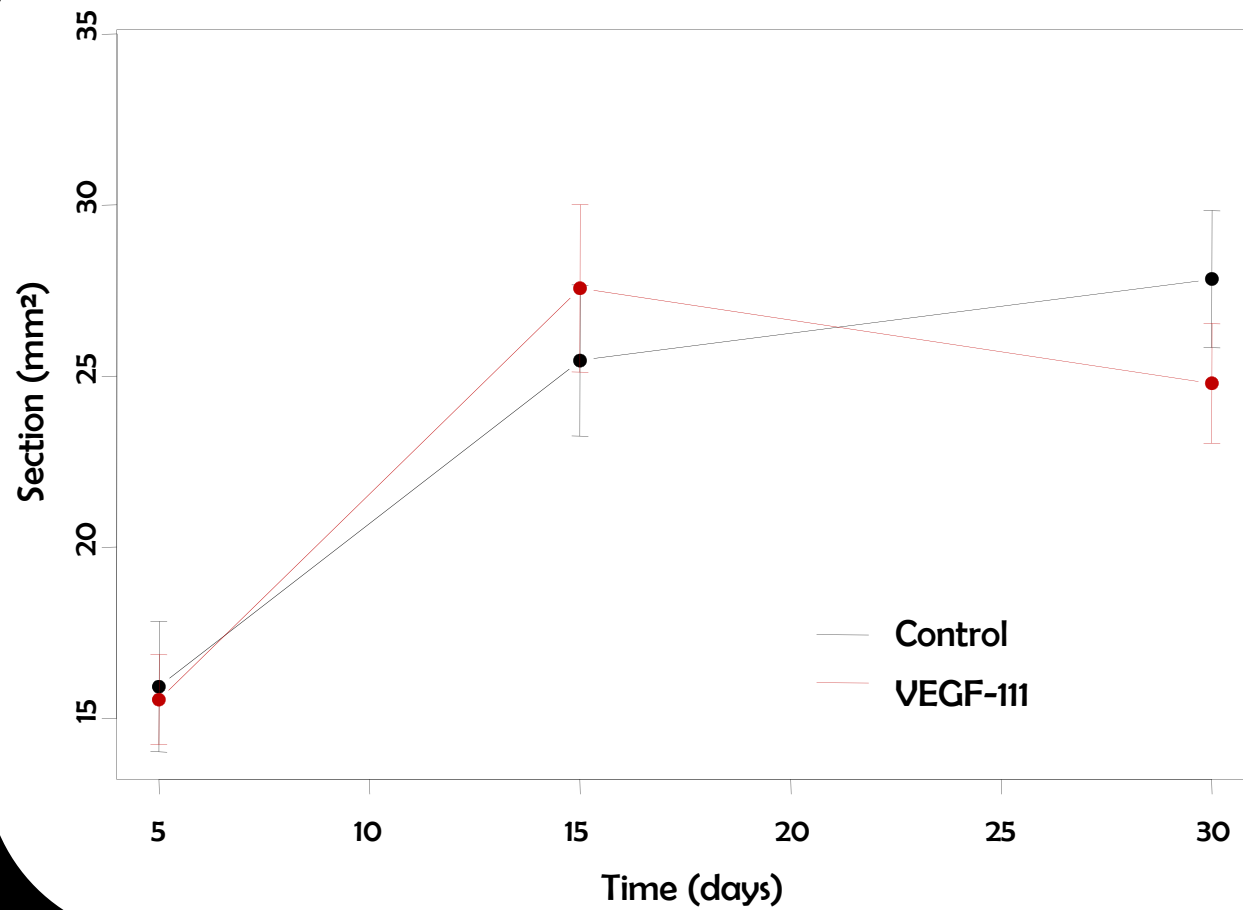
# Methods

- Statistical analyses were made with an **ANOVA**. Values are significant when p-value is below 0.05.

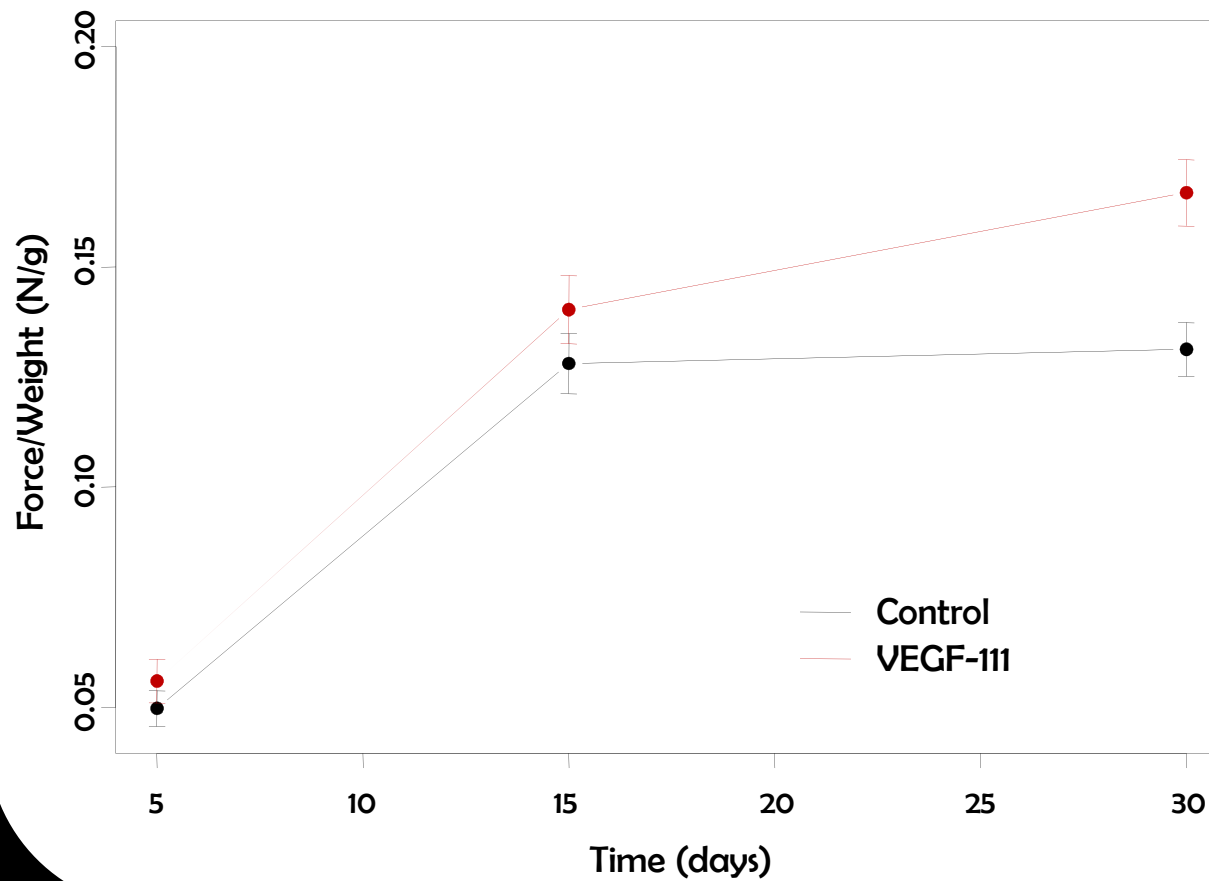
# Results: force (N)



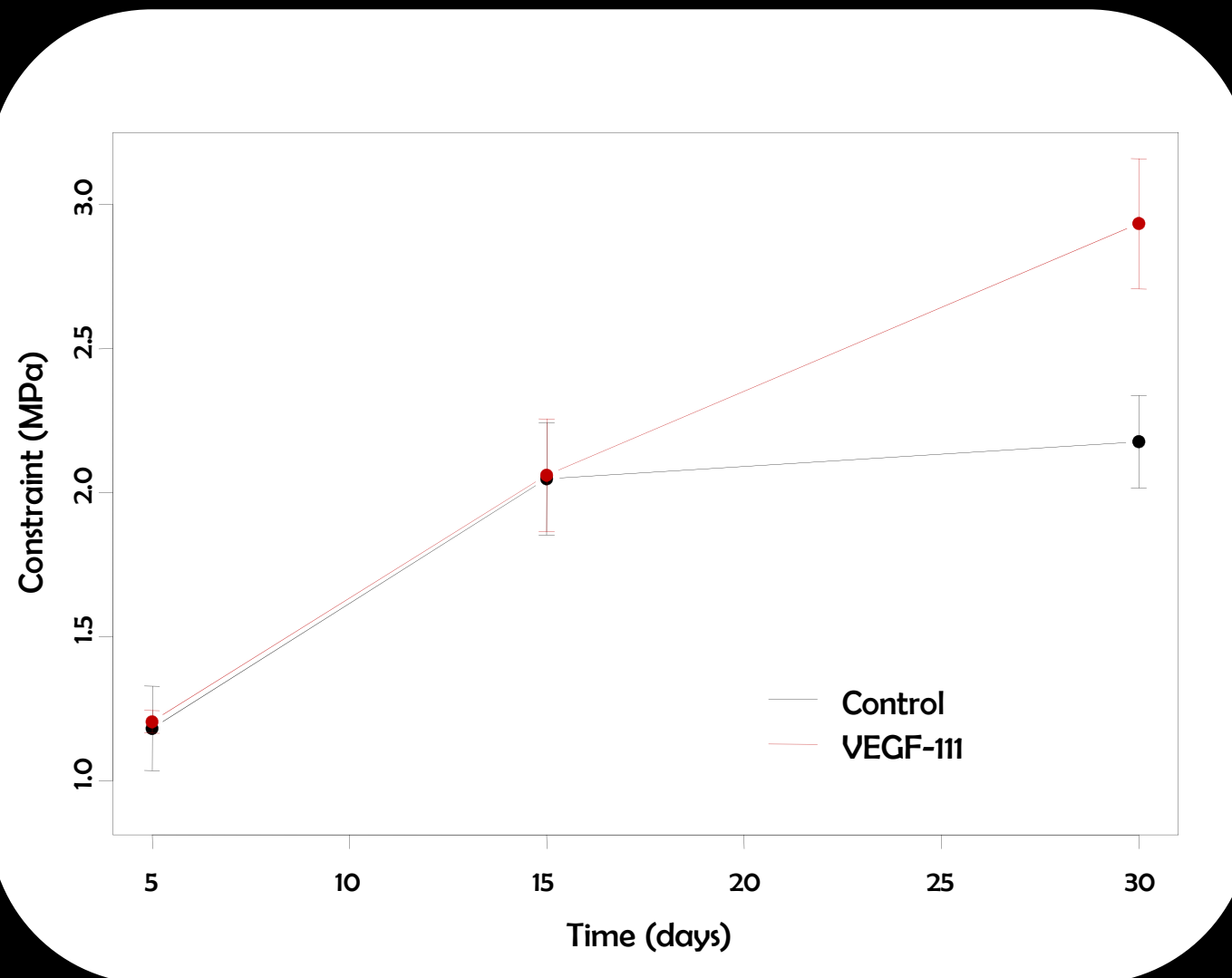
# Results: section (mm<sup>2</sup>)



# Results: force/weight (N/100g)



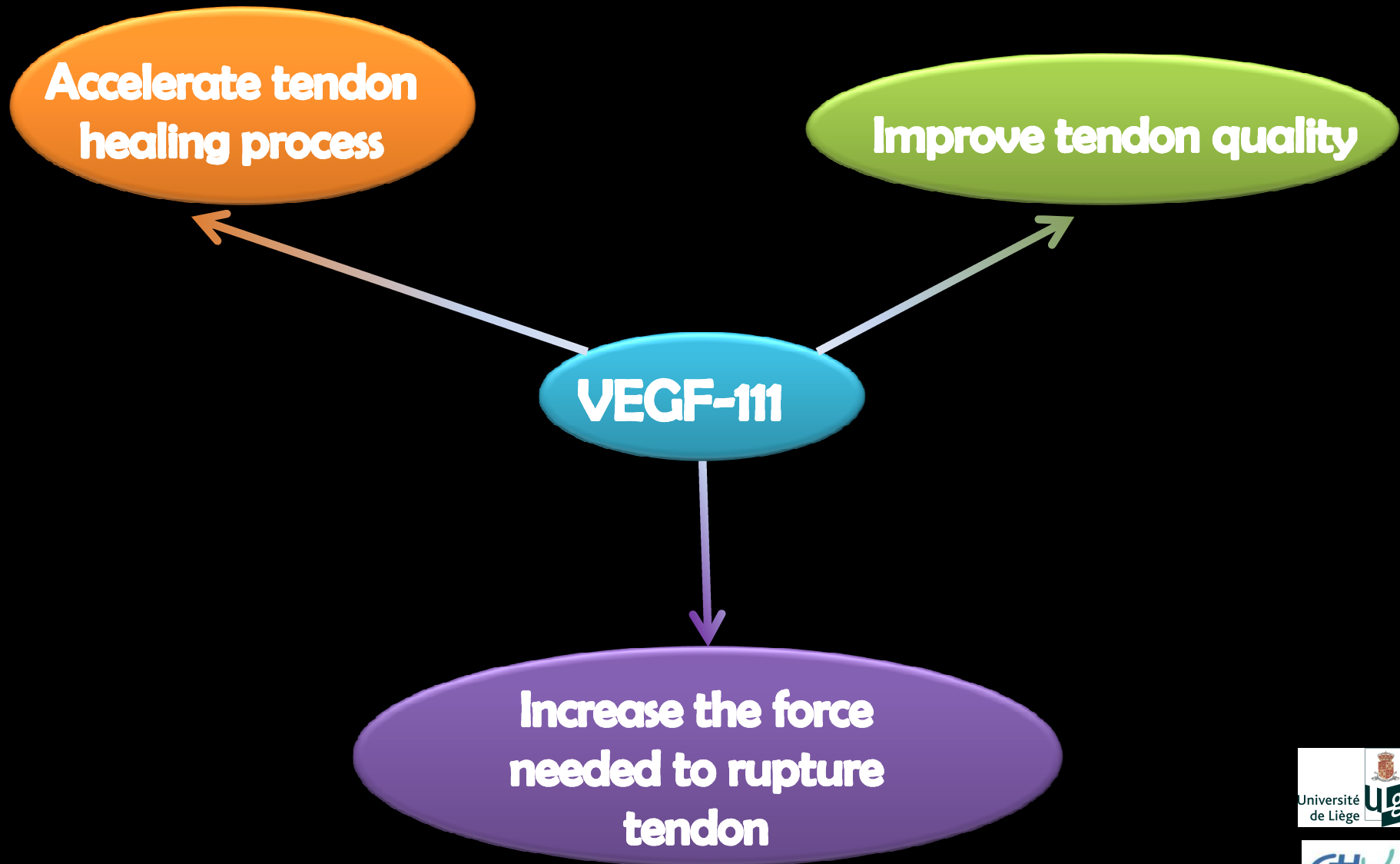
# Results: constraint (Mpa)



# Discussion

- A **100ng** injection of **VEGF-11** stimulated tendon healing process
  - **increasing stress** needed to break **tendons** during its healing process.
  - **increasing constraint** in comparison with the control group.

# Conclusion





# Thank you for your attention.



[jfkaux@chu.ulg.ac.be](mailto:jfkaux@chu.ulg.ac.be)

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