Stay one step ahead

Uncover NEW science behind the industry's ‘unicorn’ collagen ingredient

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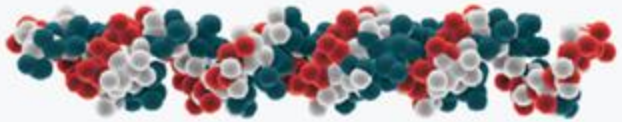
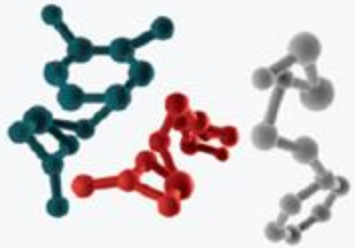
Understanding the different ‘types’ of collagen

	NATIVE TYPE II COLLAGEN	HYDROLYSED COLLAGEN
MOLECULE	Native (undenatured) form - triple helix 	Denatured - cut into small peptides 
TYPES OF COLLAGEN	Type II (specific)	Non (specific)
ABSORPTION	No	Yes
MECHANISM OF ACTION	Immune mediated	Anabolic
MAIN EFFECT	Decrease of collagen destruction	Increase of collagen production
DOSE	40 mg	10 g

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So, what is a ‘unicorn’ collagen ingredient?

DAVID FOREMAN *- Pharmacist and Media Natural Health Expert*

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Collavant® n2

Native type II collagen

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What is Collavant® n2?

- Naturally-derived ingredient supplying **native (undenatured) type II collagen**
- Supports **joint health** at a low dose of **40 mg / day**
- Immune-mediated mechanism of action

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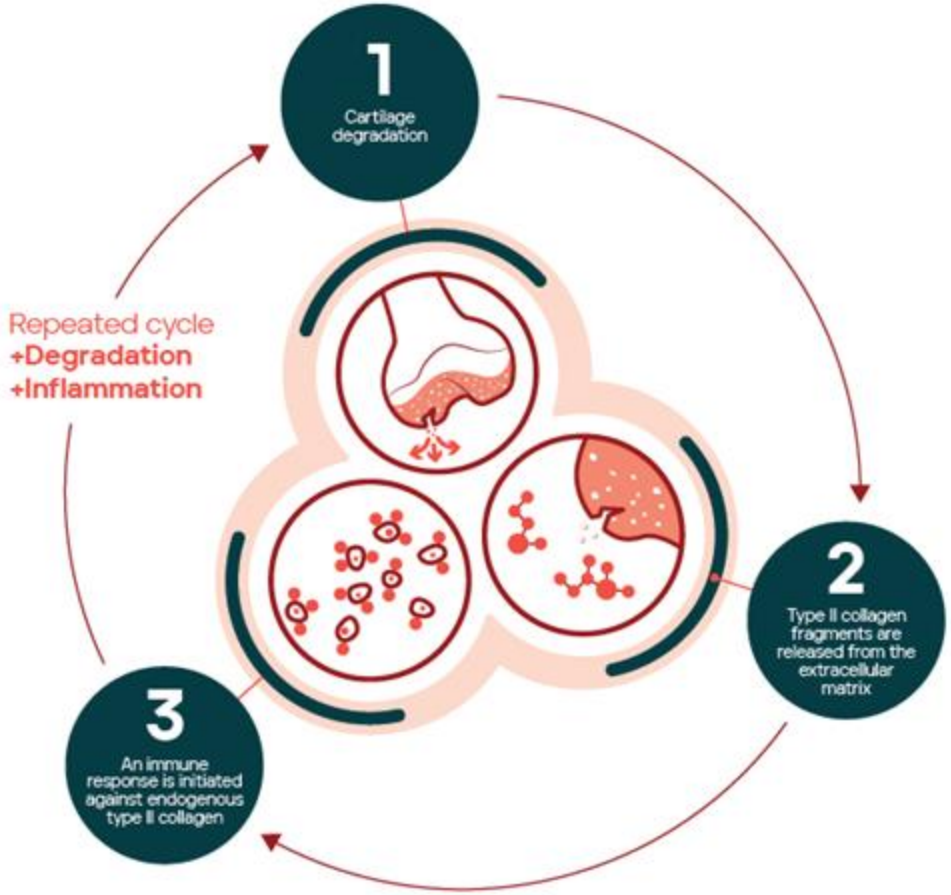
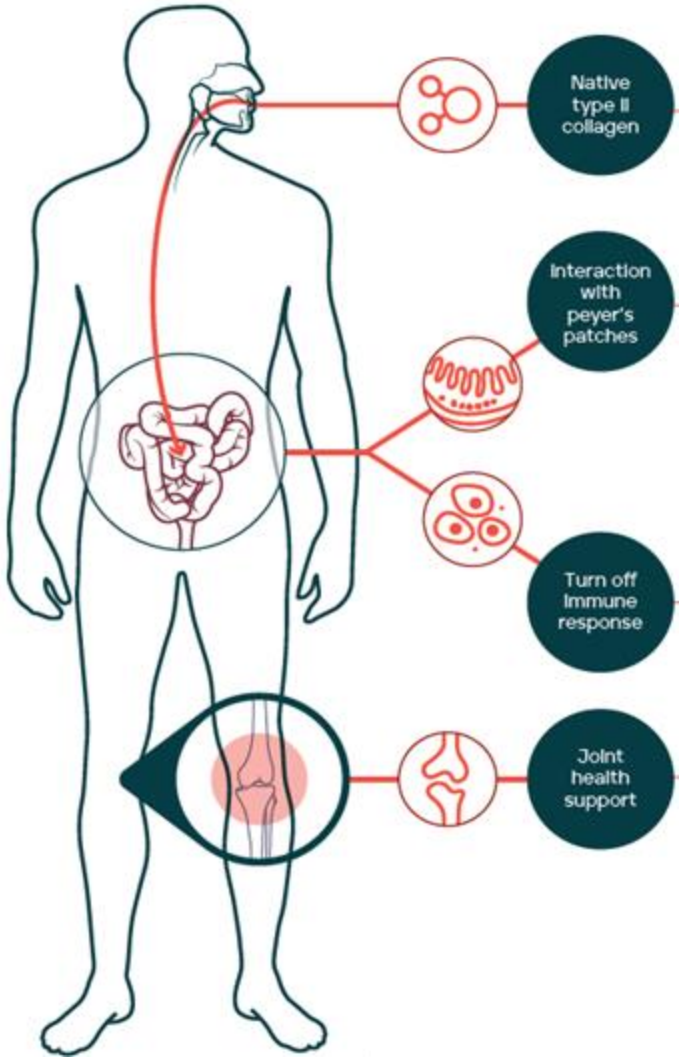
Native type II collagen: Mechanism of action





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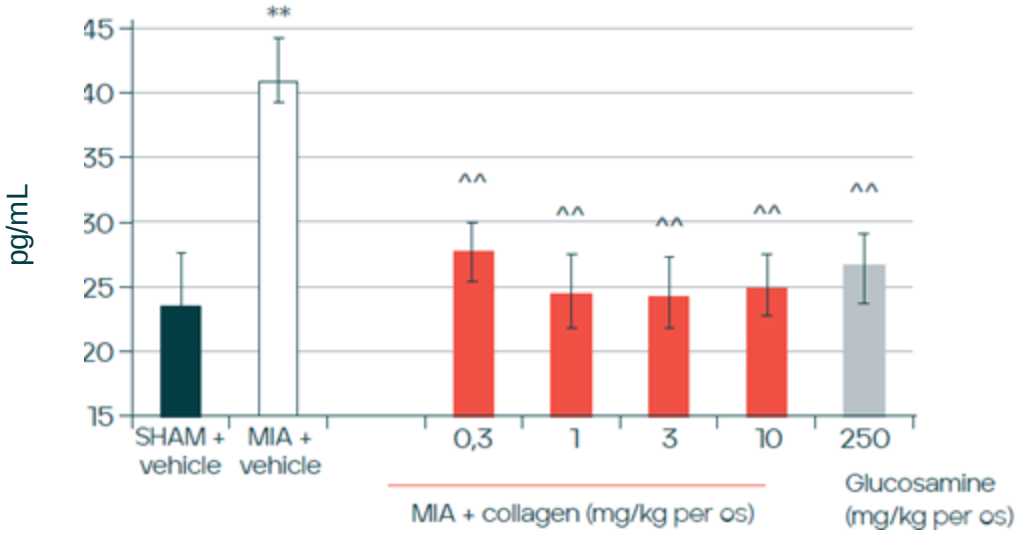
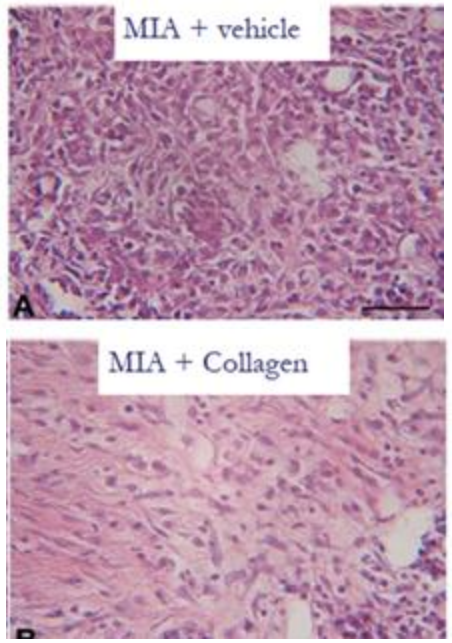
Study: Cartilage degradation & inflammation

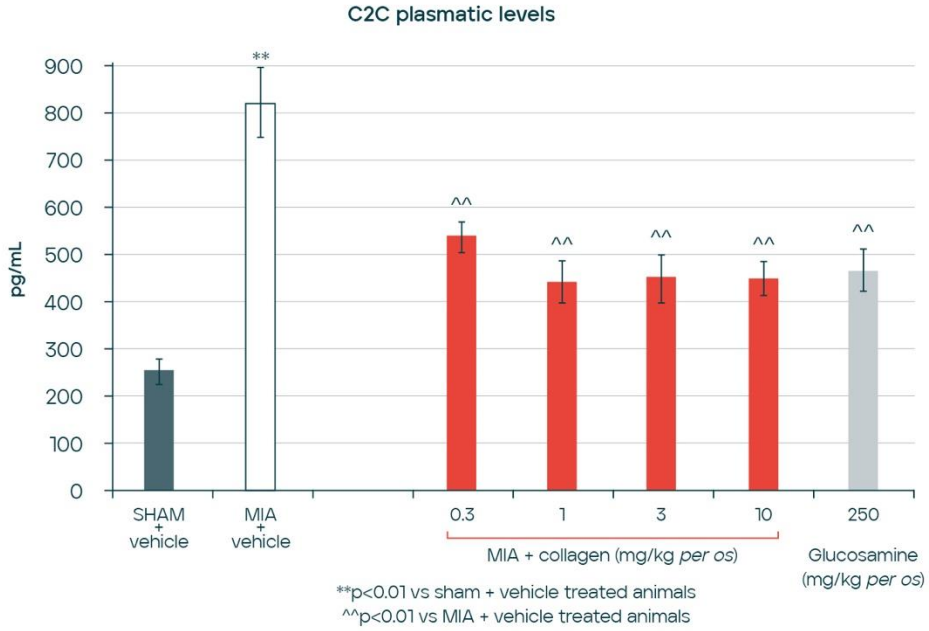
Murine model of knee OA induced by MIA

IL-1β plasmatic levels



Inflammatory infiltrate





OA; osteoarthritis
MIA, monoiodoacetate

Mannelli et al. Osteopor. Int. 26:33, 2015

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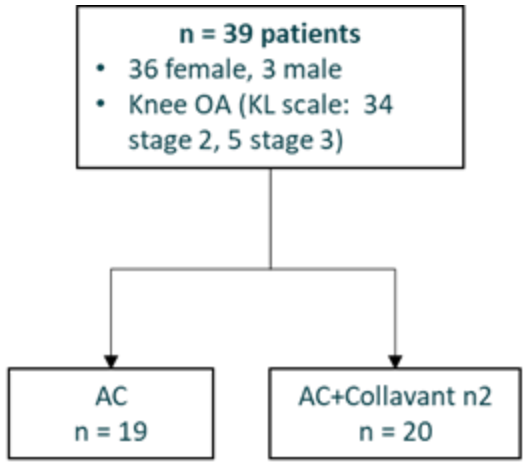
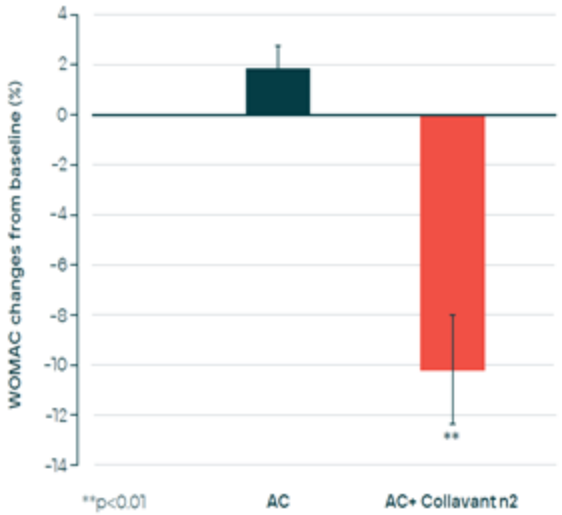
Under the microscope: Clinical data

WOMAC total

Design: Randomized single-blind controlled study



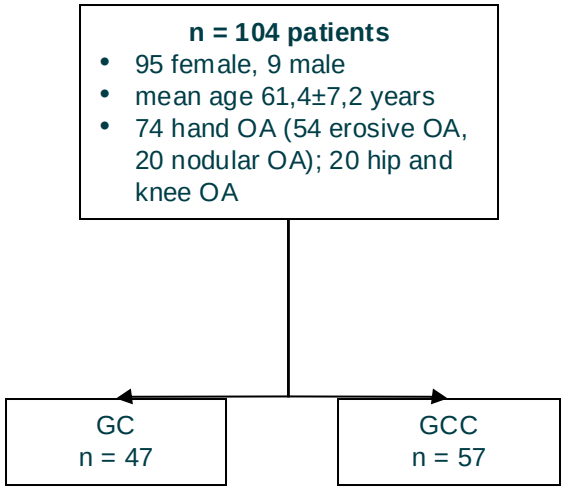
AC: Acetaminophen
KL scale: Kellgren-Lawrence scale



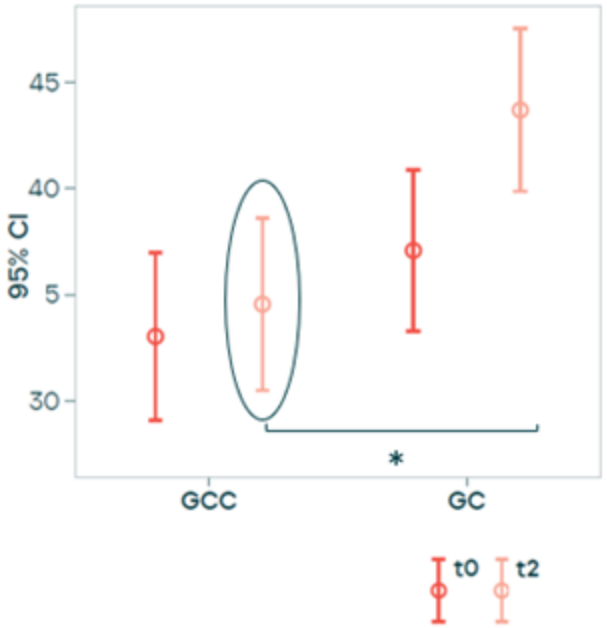
**P<0.01 vs baseline

Evolution of **radiological score** in hand OA

Design: Observational retrospective study



GCC: Glu+CS+Native type II collagen
GC: Glu+CS
t0: baseline
t2: 1 year



*P<0.05 vs baseline

Bakilan et al. Eurasian J Med. 48: 95-101, 2016

Scarpellini, et al. J Orthopaed Traumatol. 9:81–87, 2008

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Introducing NEW clinical data for Collavant® n2

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ACTIVE: Healthy subjects study

Clinical trial protocol

- **Participants:** Healthy individuals (discomfort after activity)
- **Design:** Randomized double-blind, placebo-controlled study
- **Study arms:**
  - Placebo
  - Collavant® n2 (40mg/day)
- **Sample size:** n= 74; 35-39/arm
- **Treatment period:** 6 months
- **Evaluated parameters**:
  - Pain after exercise; pain recovery after exercise
  - Knee Function (KOOS)
  - Pain (VAS, rescue medication intake)
  - Safety
- **Study location:** Barcelona

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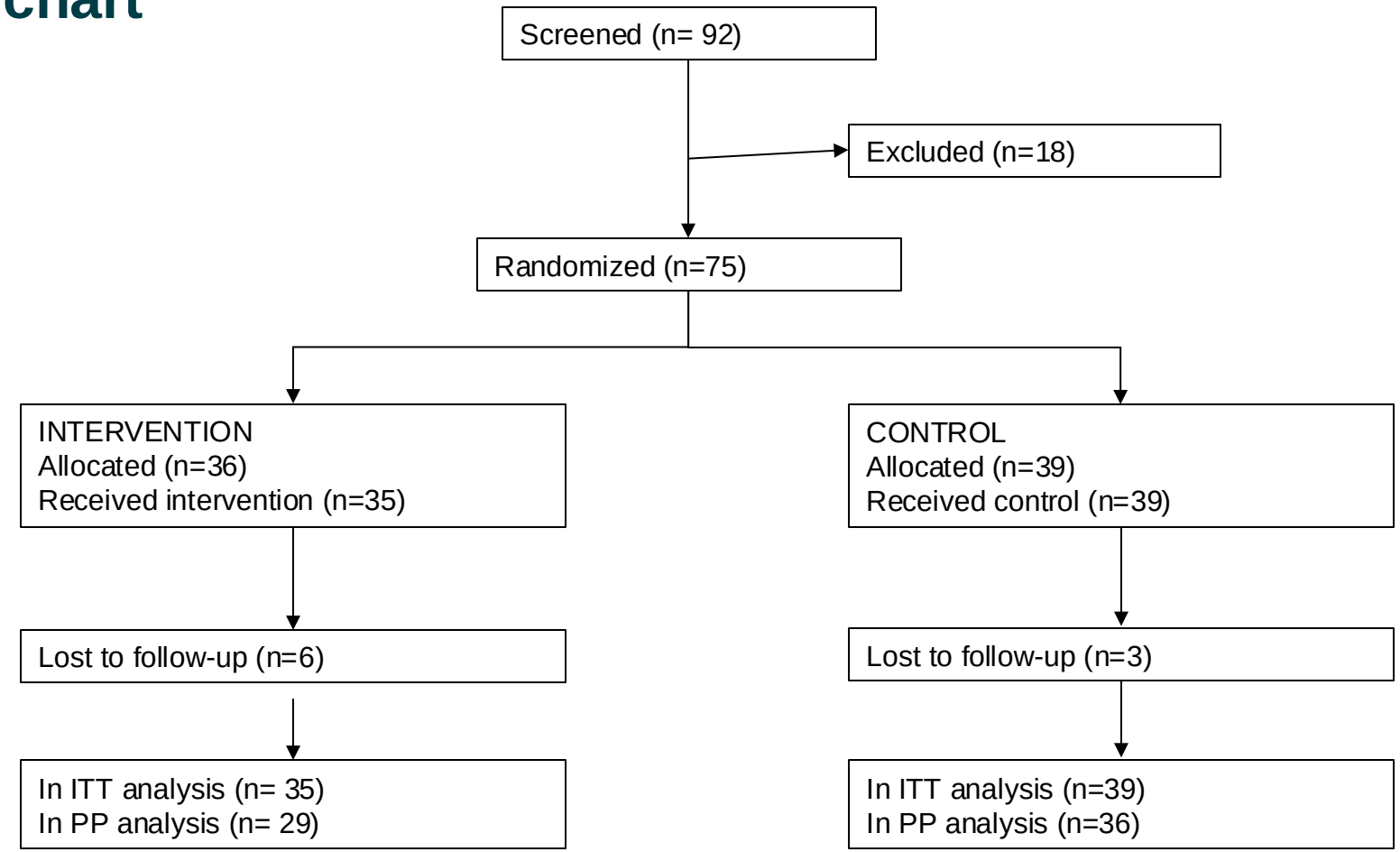
ACTIVE: Healthy subjects study

Flowchart



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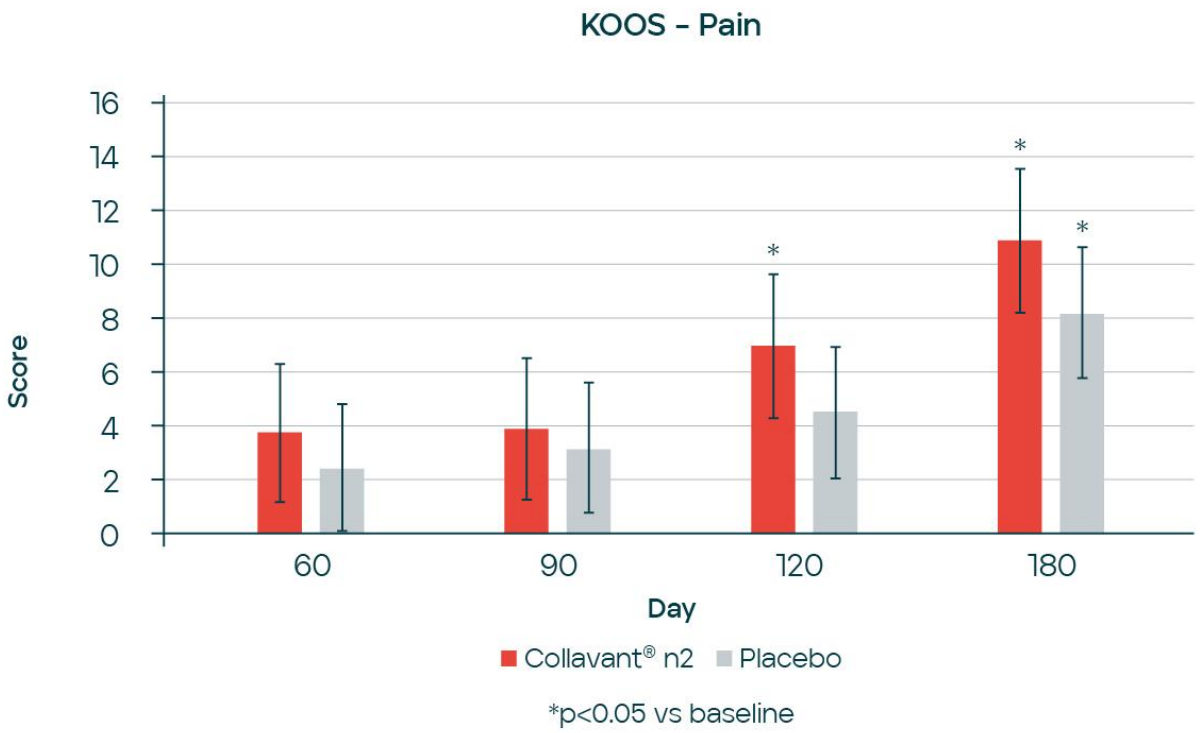
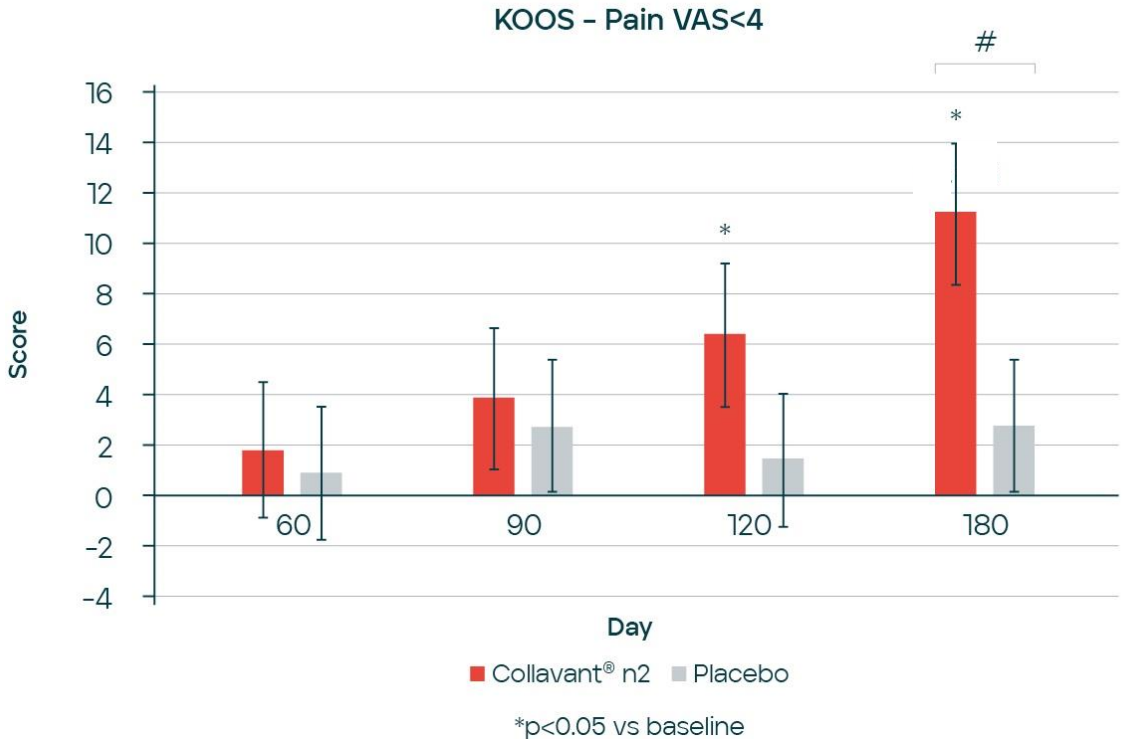
ACTIVE: Healthy subjects study

Functional evaluation: KOOS pain





#p<0.05 differences between groups

Results are expressed as difference vs baseline

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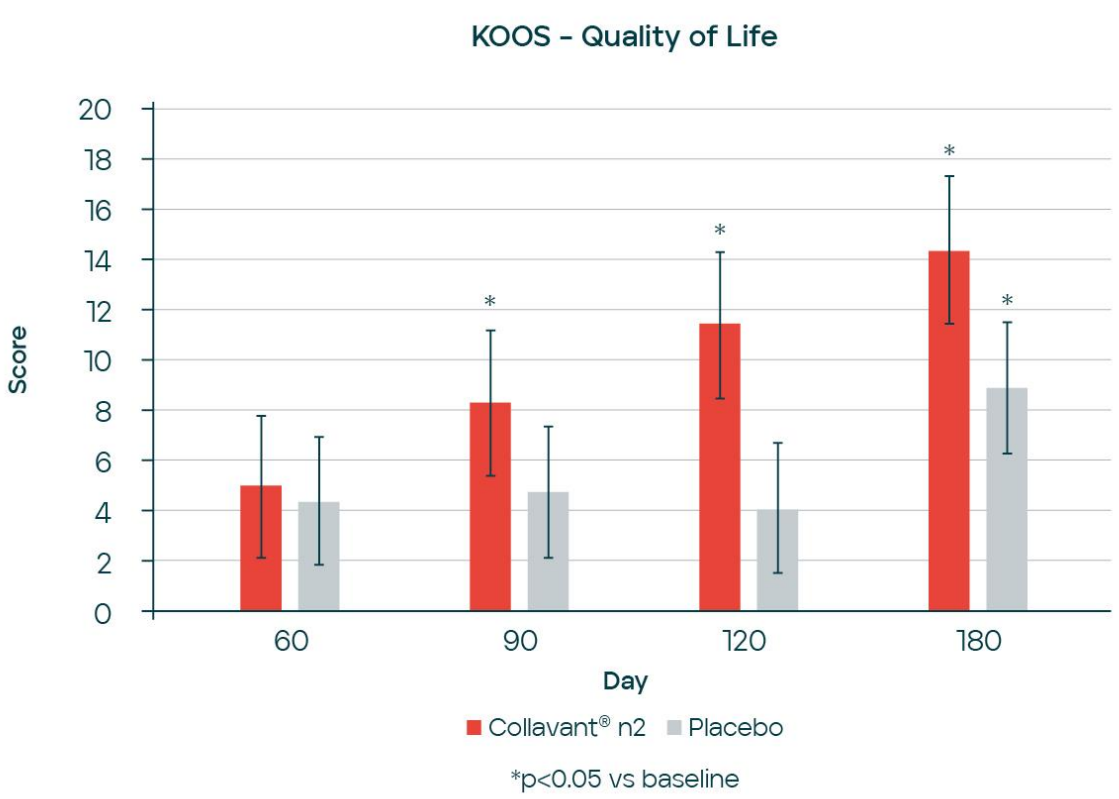
ACTIVE: Healthy subjects study

Functional evaluation: KOOS quality of life



Results are expressed as difference vs baseline

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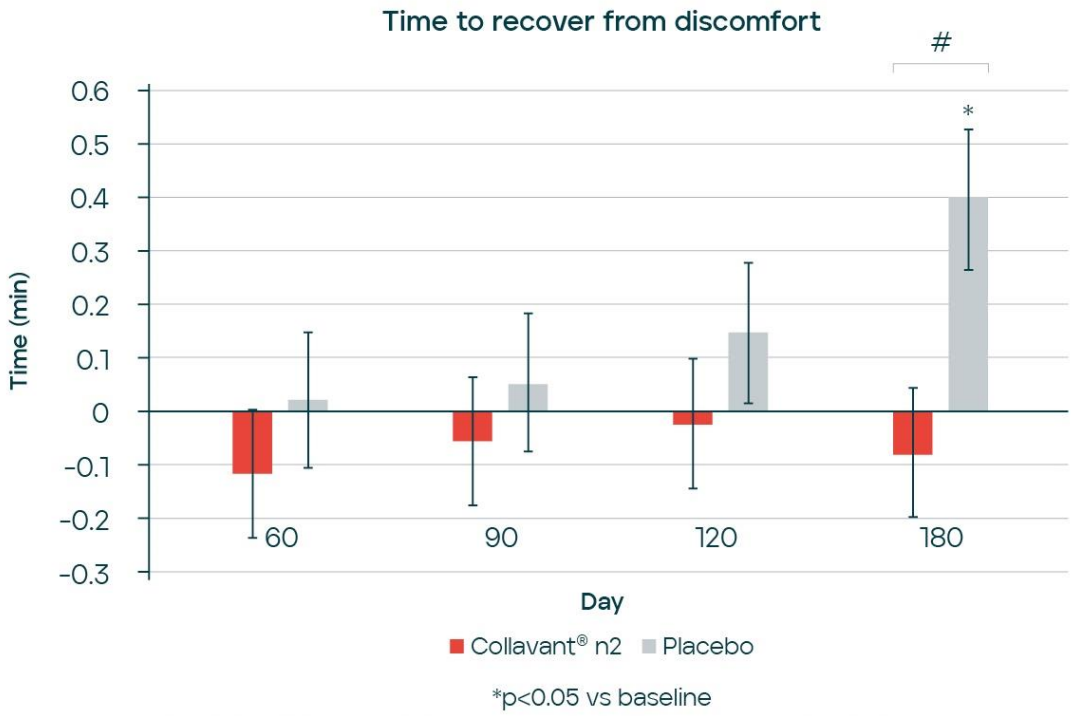
ACTIVE: Healthy subjects study

Exercise protocol: Cycling in the air



Results are expressed as difference ratio vs baseline

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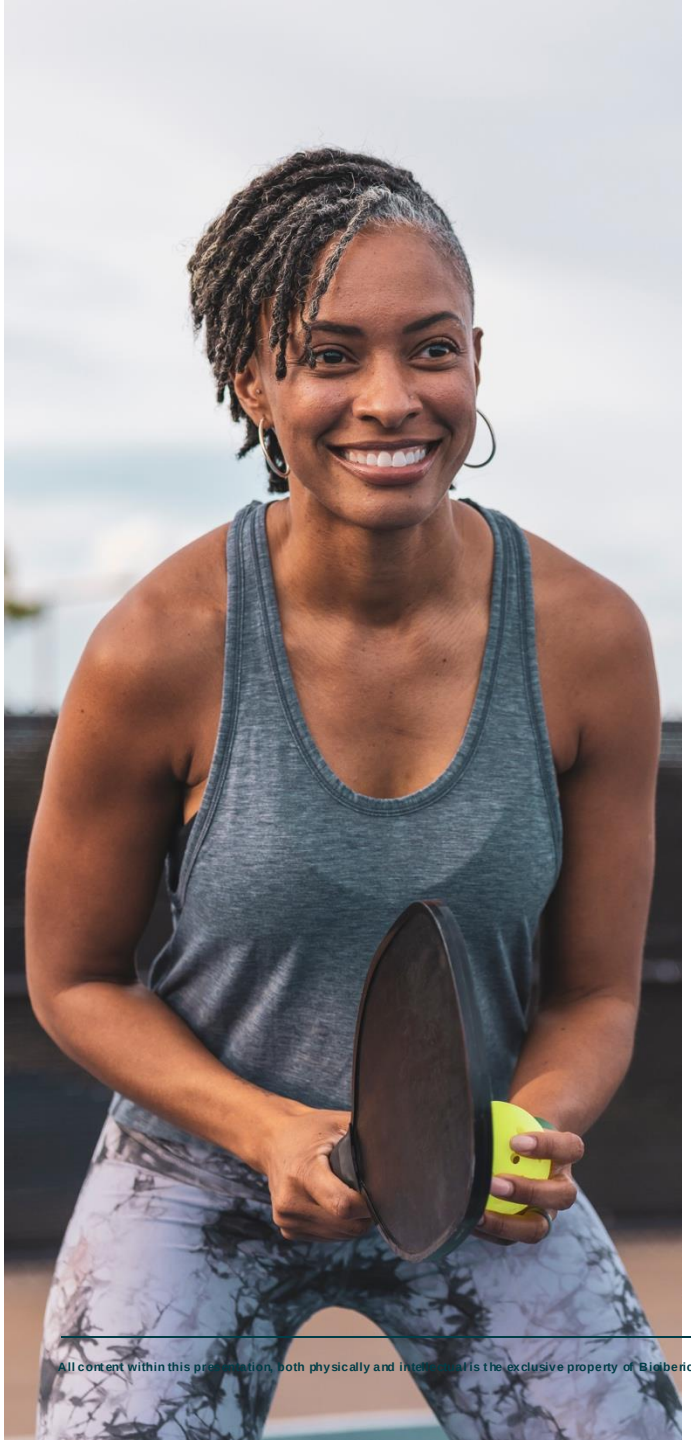

Women study

Clinical trial protocol

- **Study design**: Single-blinded randomized controlled clinical trial
- **Patients**: 39 women with knee OA patients
- **Duration:** 6 weeks follow up
- **Treatment protocol:**
  - **Supplemented group:** 40 mg/d **Collavant® n2**
  - **Exercise group:** rehabilitation protocol
  - **Control group:** no intervention
- **Outcomes:**
  - WOMAC (pain, stiffness and physical function)
  - Angular range of motion (ROM)
  - Functionality: 6-minutes walk test (6MWT), Timed Up and Go test (TUG)

Santana et al. Wien Klin Wochenschr. ***2023*** *135(11-12):291-300*

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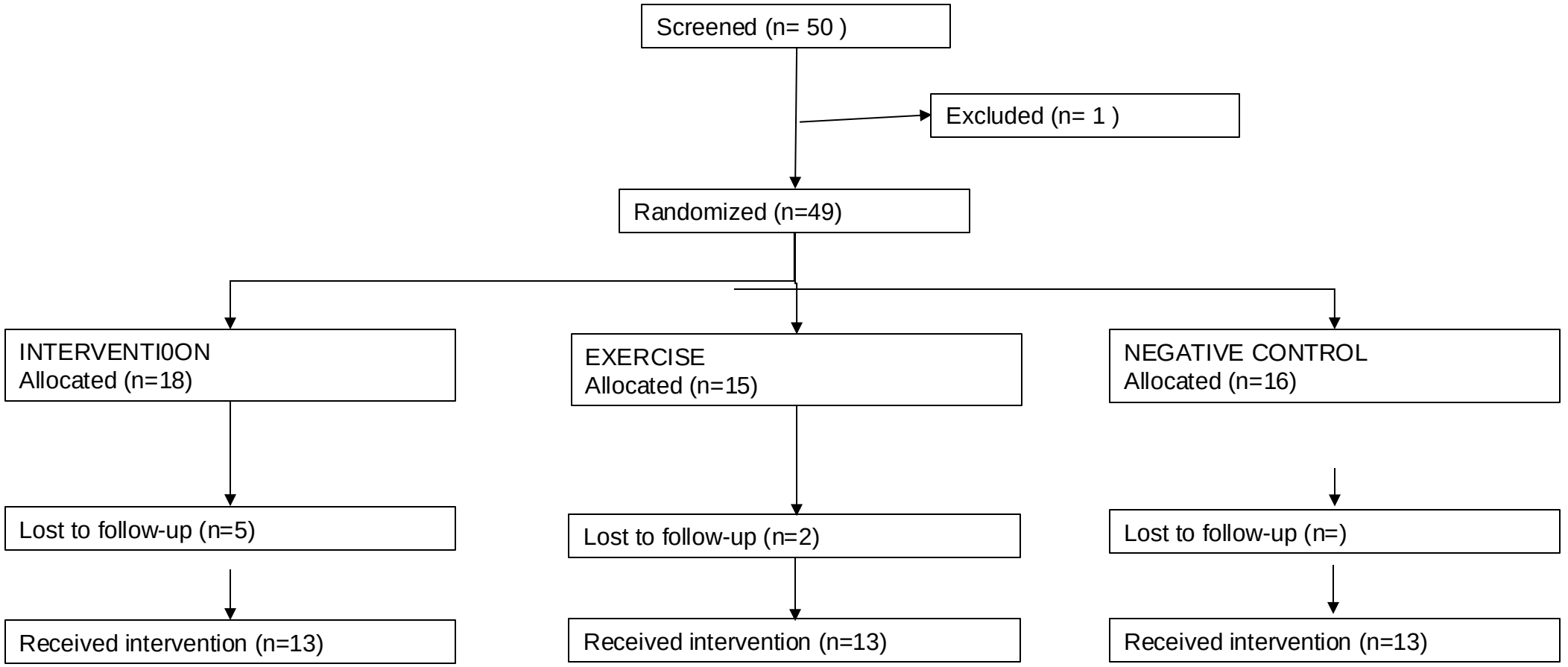
Women study

Flowchart



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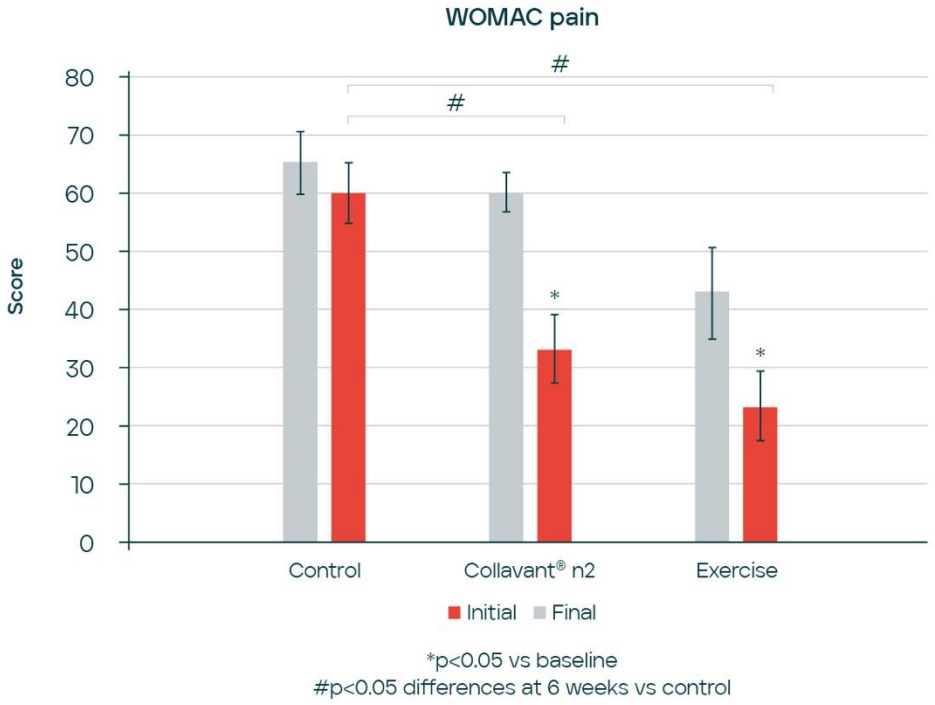
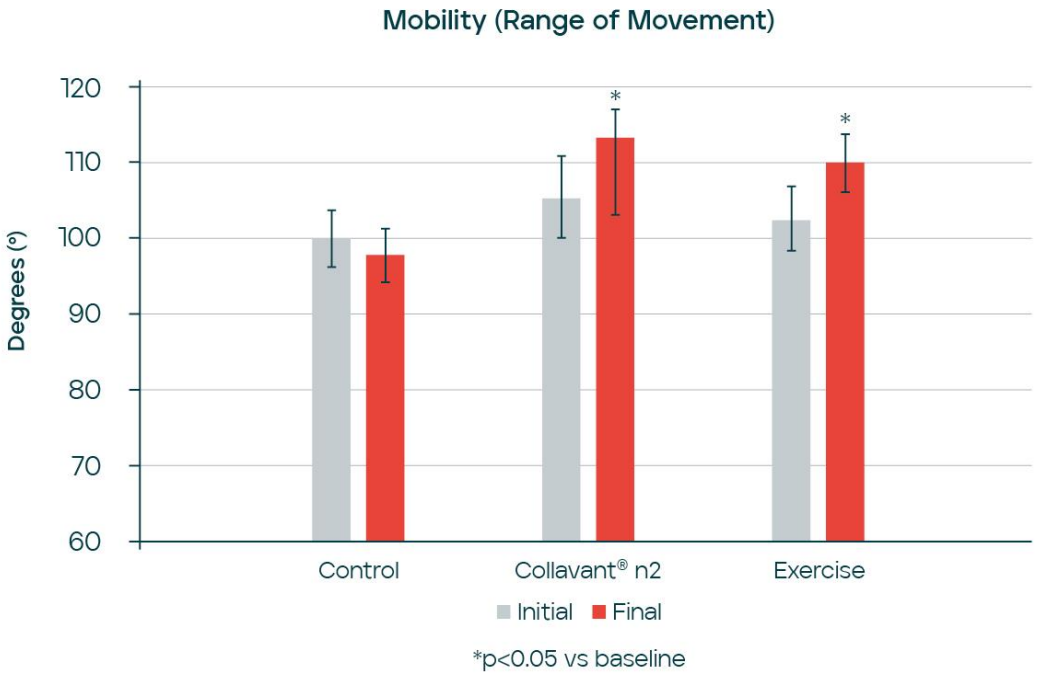
Women study

Joint function



Mobility (Range Of Movement)



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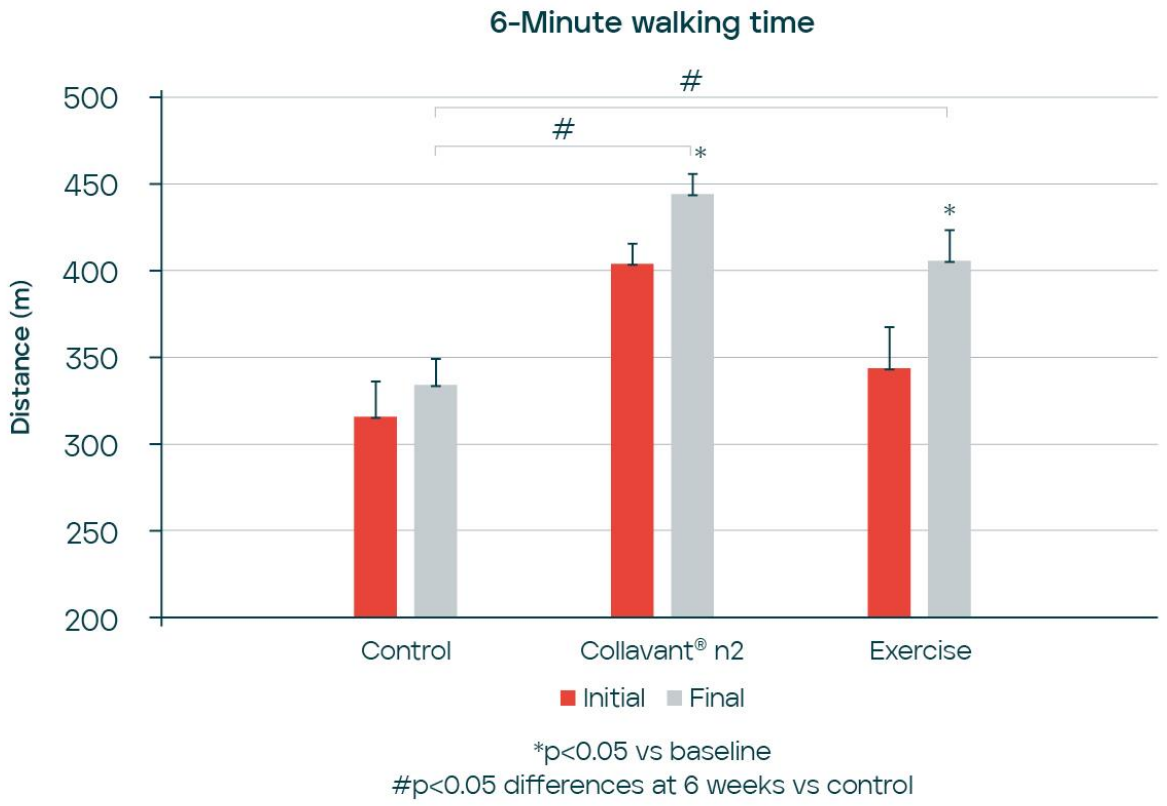
Women study

Functionality



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The science: Takeaway messages

- Oral supplementation with **Collavant® n2** at a dose of **40mg/day**, helps to support joint function

- The specific mechanism of action (immune-mediated) and the low dose, make **Collavant® n2** ideal to combine with other ingredients

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Explore new product concepts with Collavant® n2

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Collavant® n2 product concepts

Ingredient formula	Use	Delivery format
Collavant® n2 40 mg + Collagen Peptides 10 g		
Collavant® n2 40 mg + Boswellia Serrata 100 mg		
Collavant® n2 40 mg + Vit K2 45 µg + Vit D3 400 IU		
Collavant® n2 40 mg + Whey Protein 10 g		
Collavant® n2 40 mg + Mobilee® 80 mg		

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Collavant® n2 + Boswellia Study

Study composition

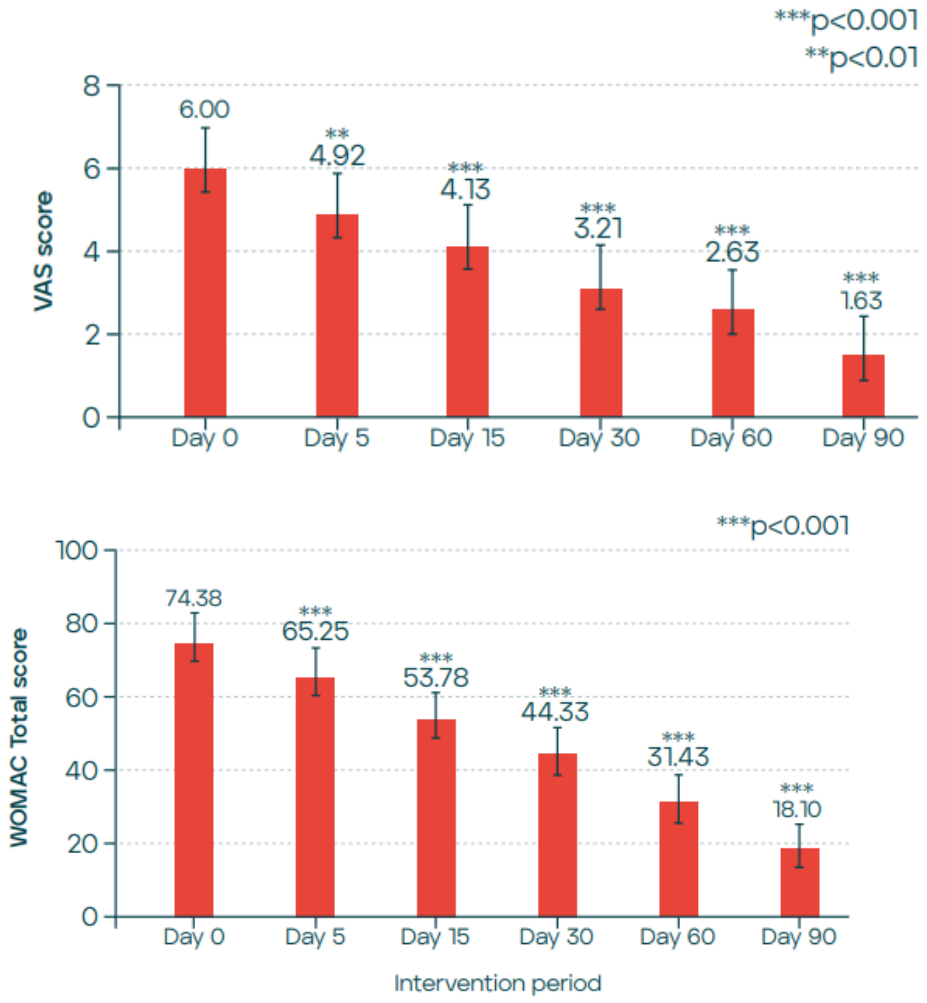
- Collavant® n2 - 40mg/d
- Alfapin® (Boswellia serrata extract) – 100mg/d

Design

Pilot, observational, single arm, multicentric open label real-world evidence study

Demographic characteristics

- **n = 40 patients**
- 23 female, 17 male
- mean age 58,9,±8,3 years
- Knee OA
- VAS score in movement (40-70mm)



Jain et al. Int. J. Res. Orthop. 7:1, 2021

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A dynamic duo for mobility

Collavant® n2

Native type II collagen

&

Mobilee®

Hyaluronic acid matrix ingredient

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What is Mobilee®?

- **Mob**ilee® is a **hyaluronic acid matrix ingredient** which has been demonstrated to support **both joint** and **now also muscle health**

- **Mob**ilee® is a naturally-occurring **matrix** of components which combines:
  - high concentration of **hyaluronic acid** (60-75%)
  - **polysaccharides** and **collagen**

- **Mob**ilee® is effective from a very **low dosage: only 80mg/day**

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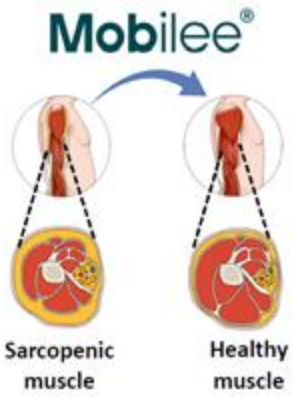
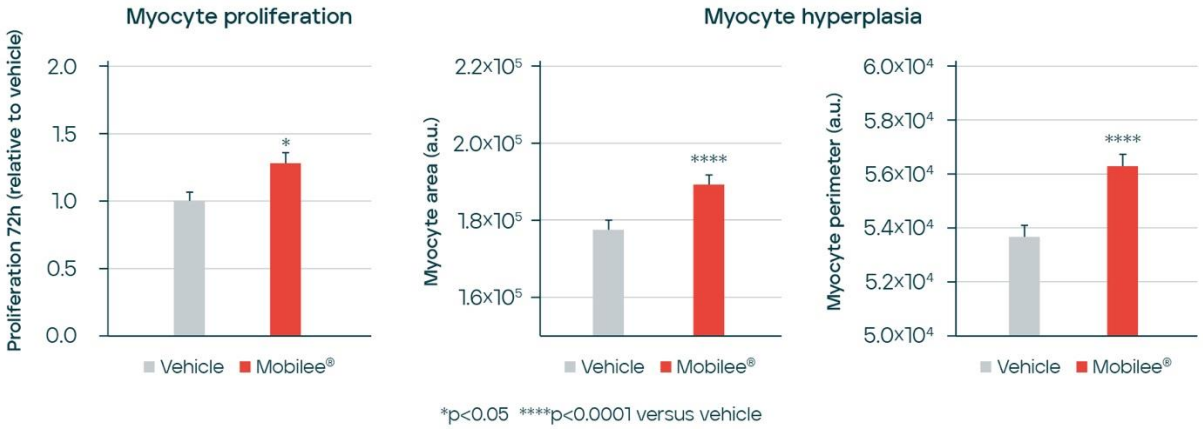
Effect of Mobilee® on muscle health

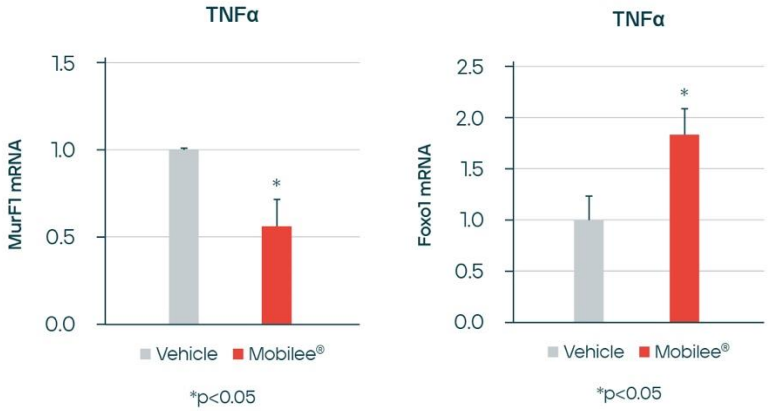


Myocyte proliferation and hyperplasia



*p<0.05 ****p<0.0001 versus vehicle

Muscle atrophy and differentiation in sarcopenia



Tobajas et al. Aging Clin Exp Res 35: 314, 2023

Mobilee® is effective for balancing **muscle cell turnover**, which may aid sarcopenia, and helps to maintain muscle function in sarcopenic conditions.

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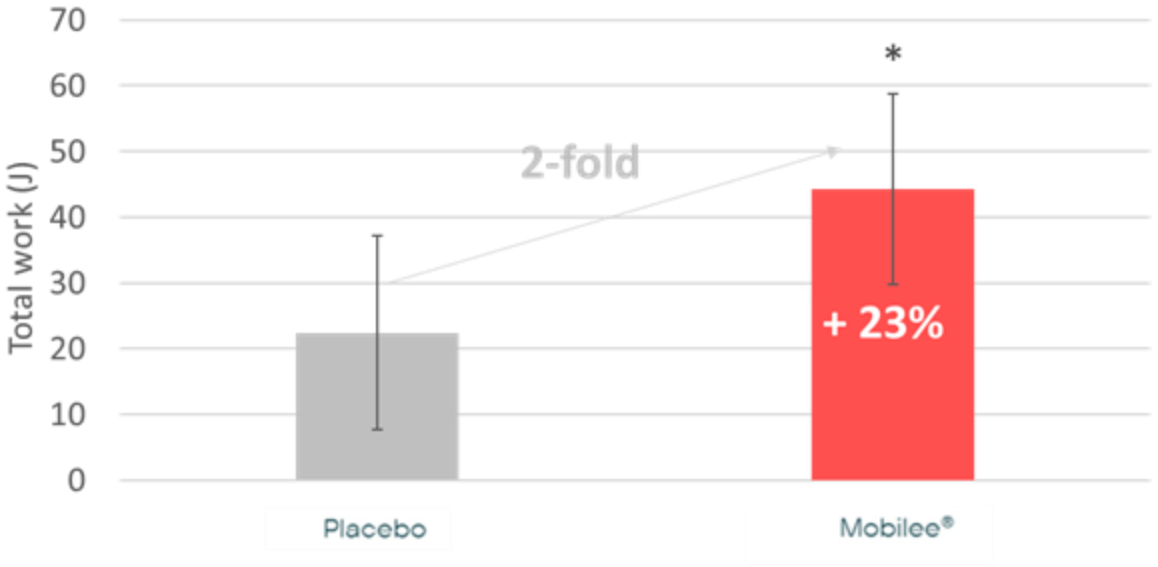
Supports muscle strength

Isokinetic assessment:
Total work of the knee in flexion at 180º/s



*p<0.05 differences between groups

Increase in total work (J) compared to baseline for knee flexion at 180º/s

Moriña et al. Food Funct. 9:3244-3253, 2018

Three months oral administration of a yoghurt product containing 80mg **Mobilee®** in healthy individuals with knee discomfort provided improvements in **muscle function**.

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So, why Collavant® n2?

- **New generation collagen**
- Specific for **joint health**
- Low daily dose**:** only **40 mg /day**
- **Science-backed:** efficacy demonstrated in 7 scientific studies
- **100%** sourced and manufactured in **Europe,** by **Bioiberica, S.A.U**.

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About Bioiberica

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- **Global life science** company
- **+45 years** of expertise in **biologically-derived APIs & health ingredients**
- **#1 European** producer of **heparin API**
- Scientifically-backed **branded ingredients, for mobility, digestive & skin health.**
- **Scientifically driven**: +80 scientific publications
- **Sustainable** & **Circular economy** company

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Thank You

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