

PETFOOD FORUM EUROPE

Strategies to Improve European Pet Food Production



#petfoodforum

Public

Enzymes Advancing Sustainability, Digestibility, and Health in Companion Animal Nutrition

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International Flavors & Fragrances

May 11, 2026, Nuremberg, Germany

Co-located with  **Interzoo 2026**

Public

Pet food today must deliver sustainability, health, and affordability—simultaneously.

Health & Functionality

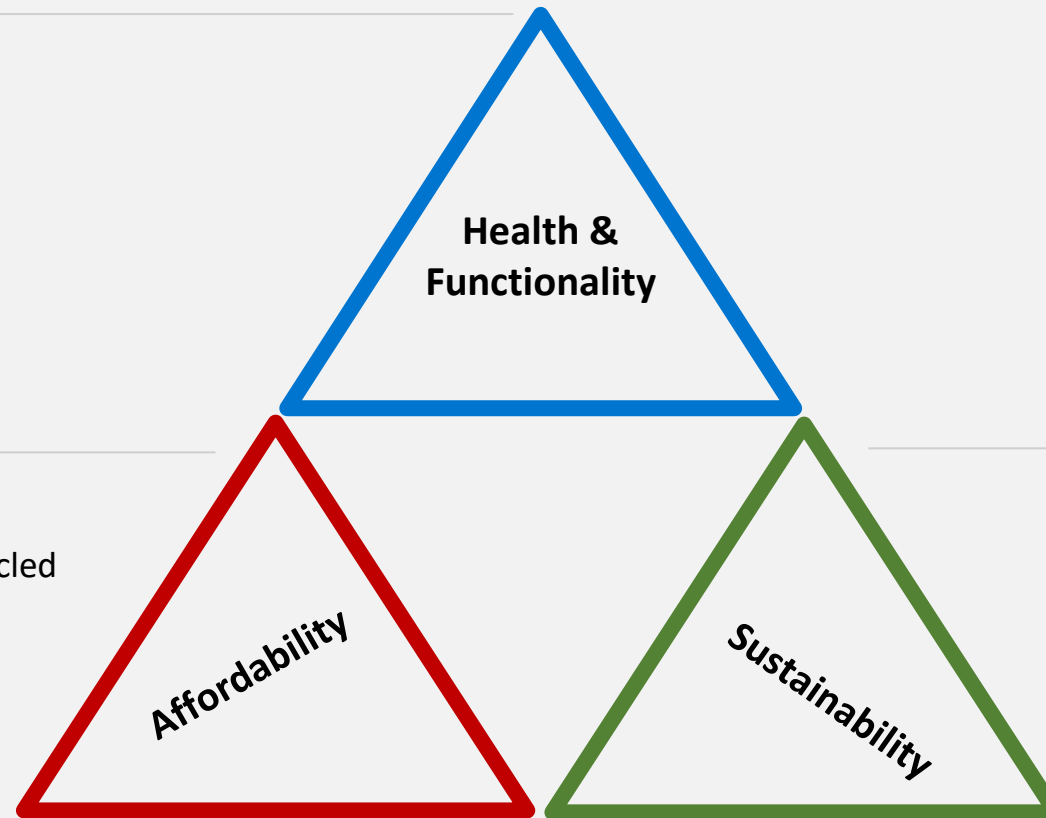
- Functional, claims
- Tailored nutrition
- Digestibility, Healthy ageing

Affordability

- Ingredient cost pressure
- accessible, value driven upcycled ingredients

Sustainability

- Ethical sourcing
- Environmental impact
- Alternative ingredients
- Ingredient transparency



Lower cost does not have to mean lower nutritional quality.

CONVENTIONAL

Lower cost → lower quality

Alternative ingredients = compromise

Health requires added actives



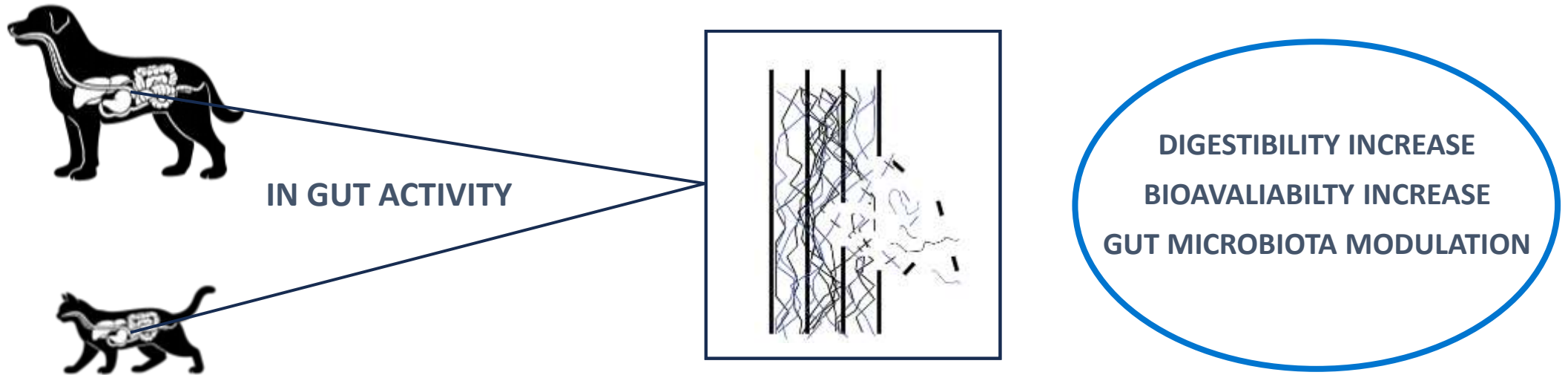
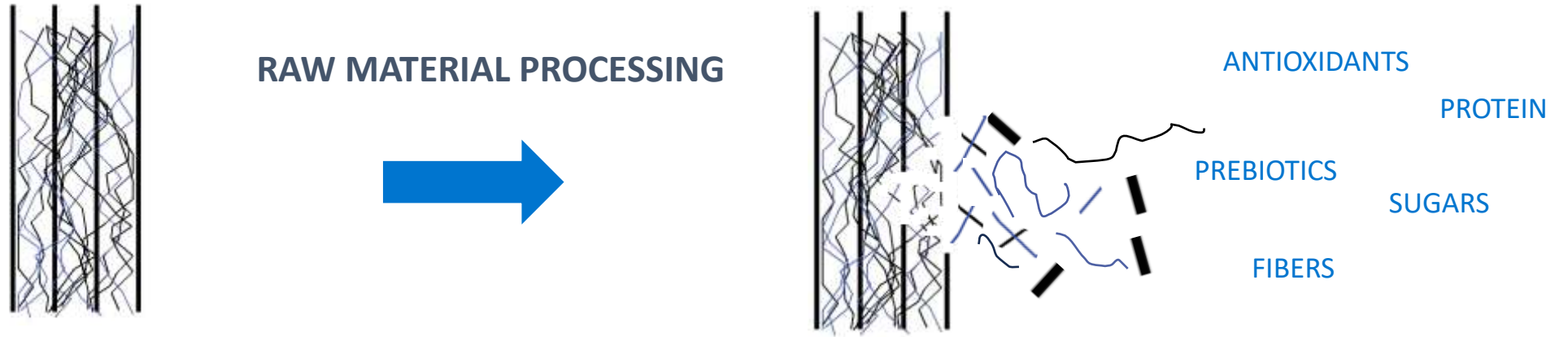
REFRAMED

Lower cost ≠ lower quality

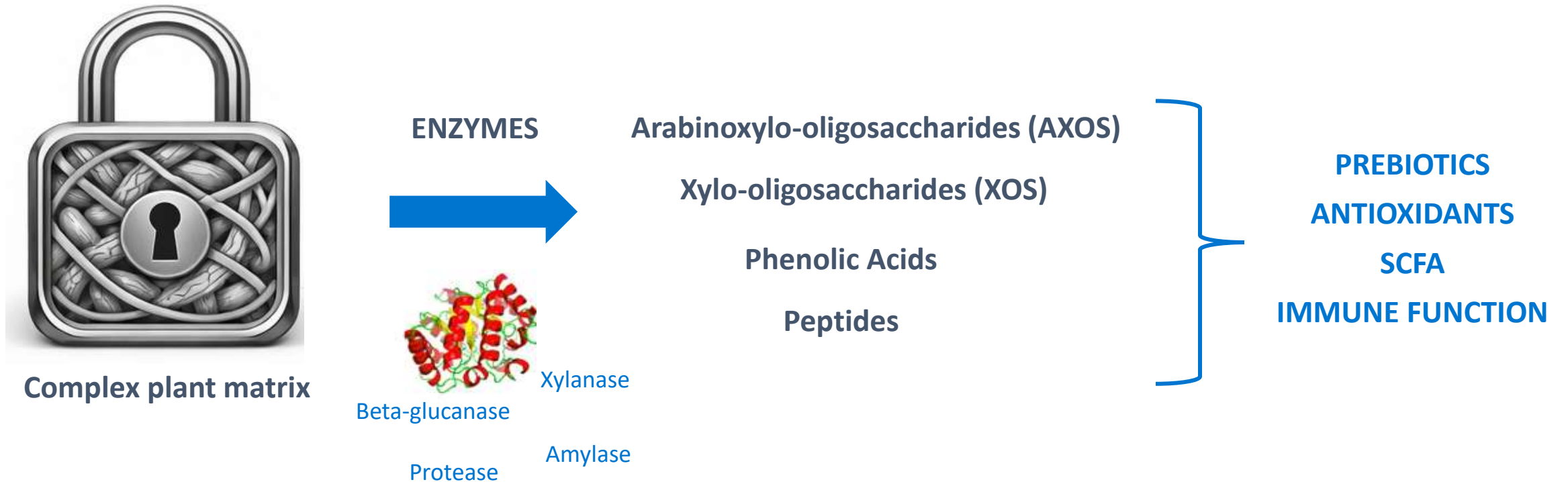
Value already exists in ingredients

Health can be unlocked, not added

The real limitation is not the ingredient — it is access to its nutrients.



Enzymes convert structural nutrients into bioavailable, health-relevant molecules



Pet owners are sending a clear message.

77%

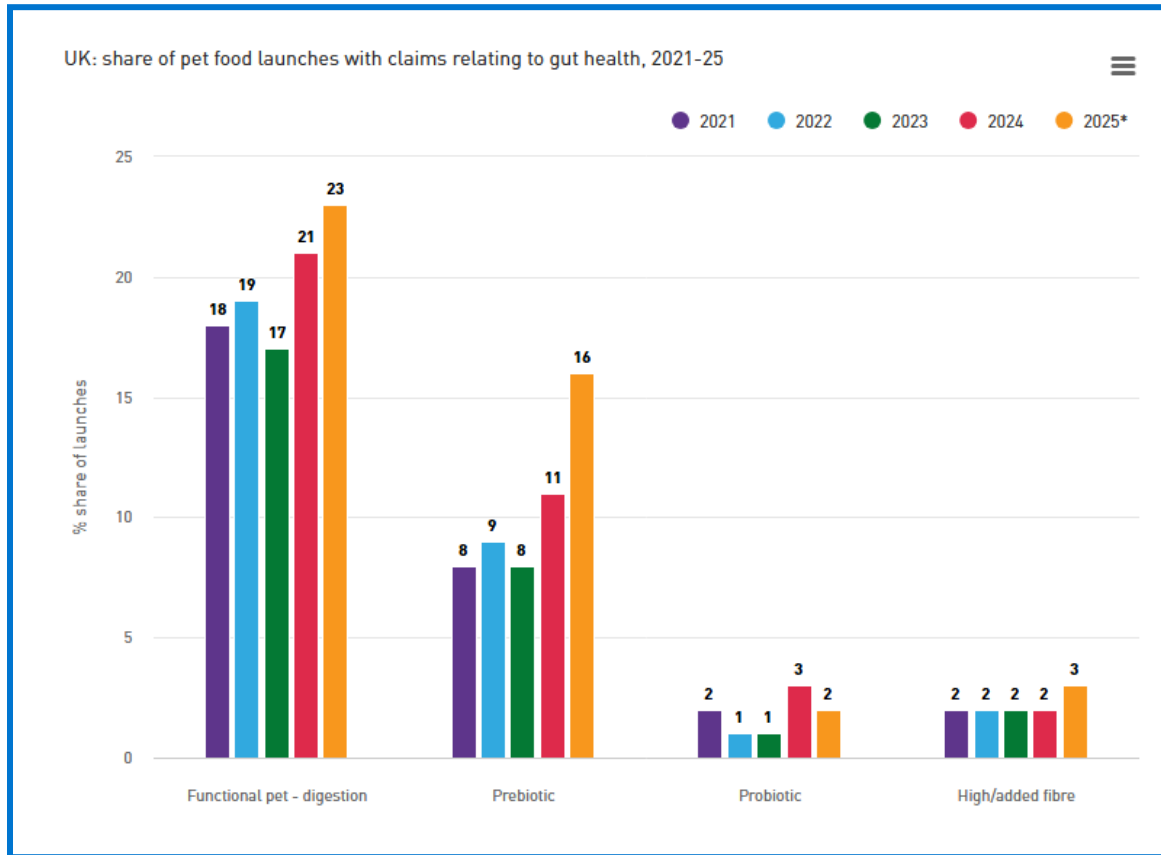
of cat and dog owners want to learn more about how nutrition can help their pets live longer.

55%

of pet owners agree that including a wide variety of plant ingredients in pet diets can improve pet health.

Base: 1,143 internet users aged 16+ who own a cat/dog; * 1,225 internet users aged 16+ who own a pet
Source: Mintel, May 2025

Market is responding.



- **Gut health / digestive support** is the dominant functional “anchor” in many markets.
- Younger consumers increasingly expect transparent, evidence-based **functional claims**.
- In France, 58% of 25–34s express interest in **digestion-supporting** claims.
- In China, **digestion** is also one of the biggest functional claims in new dog and cat food.
- **Multi-functional formulations** are becoming a clearer innovation pattern.
- In Latin America, **digestive-function claims** increased steadily to 29% of launches (Feb 2025–Jan 2026).
- **Healthy ageing** and **senior segmentation** are becoming more sophisticated.

Can Enzymes Fill the Gap?

Key Manufacturing Needs & Challenges

Cost relief without downgrading quality.

Clean-label solutions that still deliver function.

Lack of solutions that connect processing, nutrition, and claims.

Credible senior-pet health differentiation.

Key Pet Parent Needs

They expect transparent, evidence-based functional claims.

Ensure good digestion and gut comfort.

Support sustainability and responsible ingredient use.

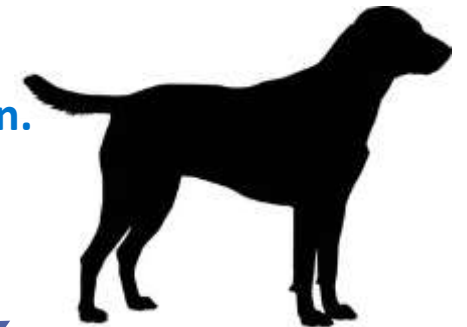
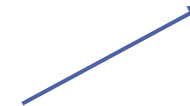
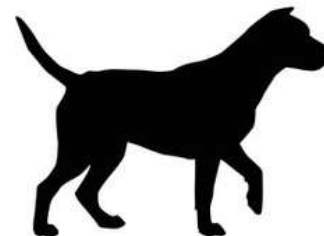
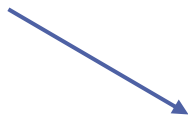
Support senior pets as they age.

Growing opportunity to frame longevity through preventative nutrition and functional benefits relevant to ageing.

- In the UK, 77% of cat/dog owners say they'd like to learn more about how diet can help their pet live longer.
- In Thailand, 42% of all pet owners say they try to feed their pets food that supports longevity.
- In China, life-stage feeding is gaining traction: 41% of pet owners change pet food according to age-related nutritional needs.



Longevity: an innovation platform naturally aligned with plant-based nutrition.

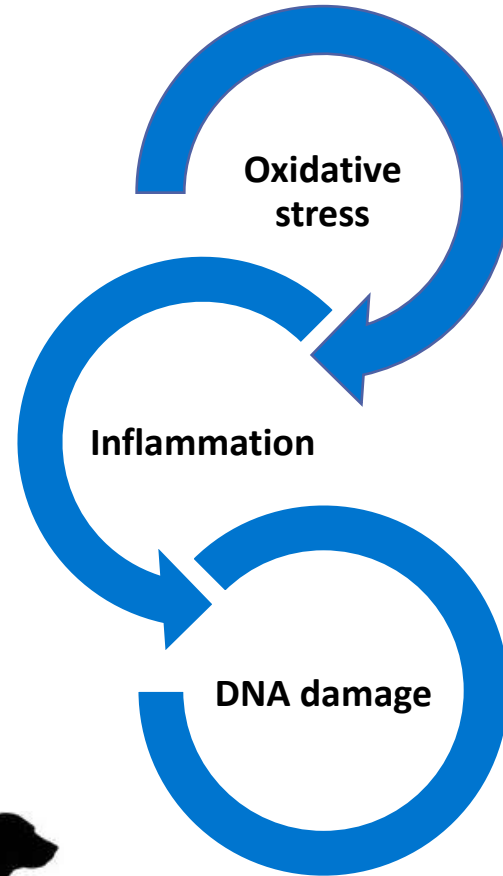
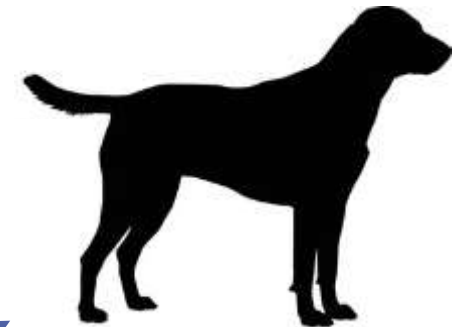
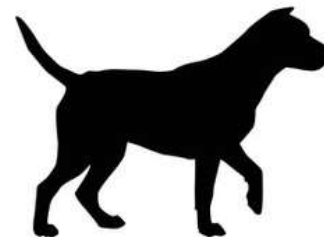
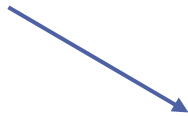


HOW CAN ENZYMES SUPPORT HEALTHY AGEING?



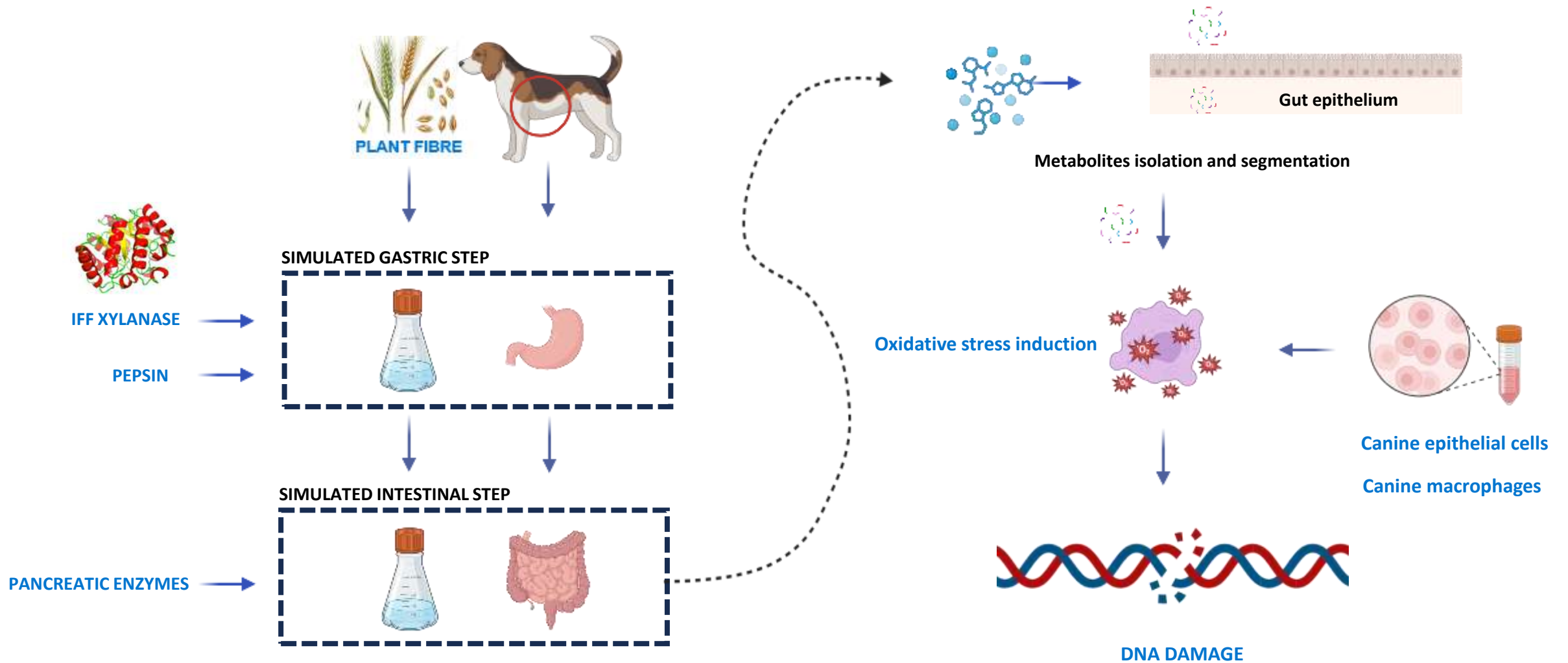
What is ageing?

Ageing processes should not be treated as diseases per se but as modifiable determinants of health span.



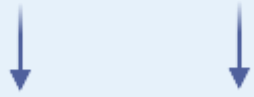
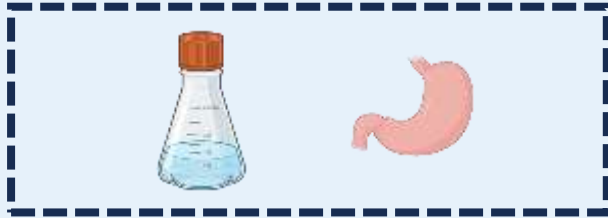
Continuous, preventative approach?

Xylanase as a Nutritional Solution for Healthy Pet Ageing



RESULTS

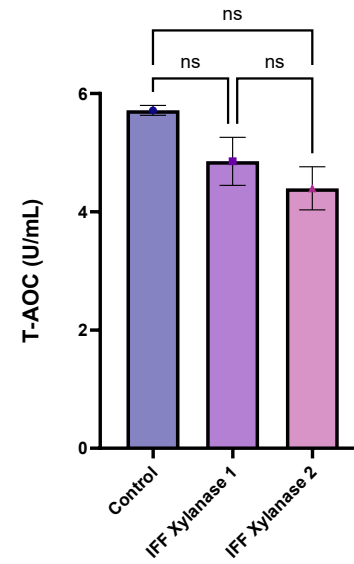
SIMULATED GASTRIC STEP



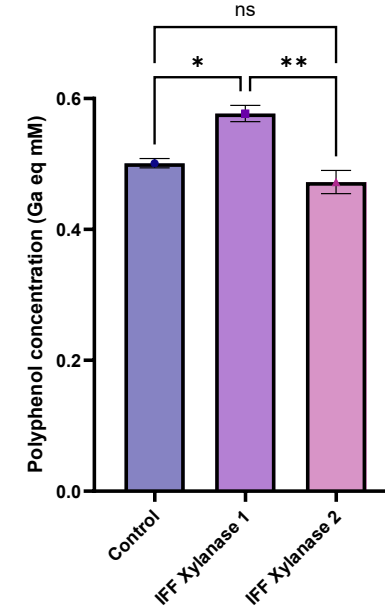
SIMULATED INTESTINAL STEP



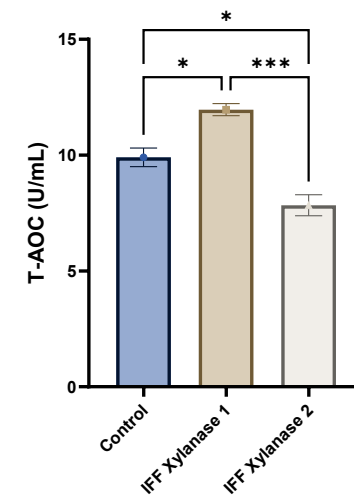
Total antioxidant activity - Gastric step



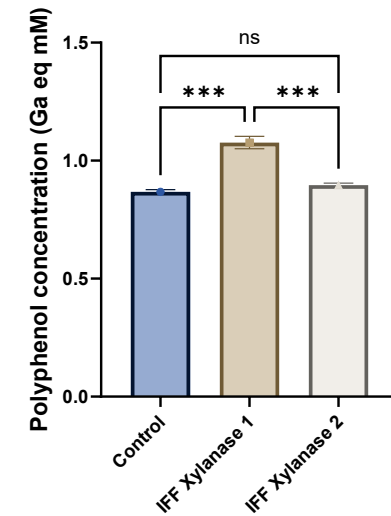
Polyphenols - gastric step



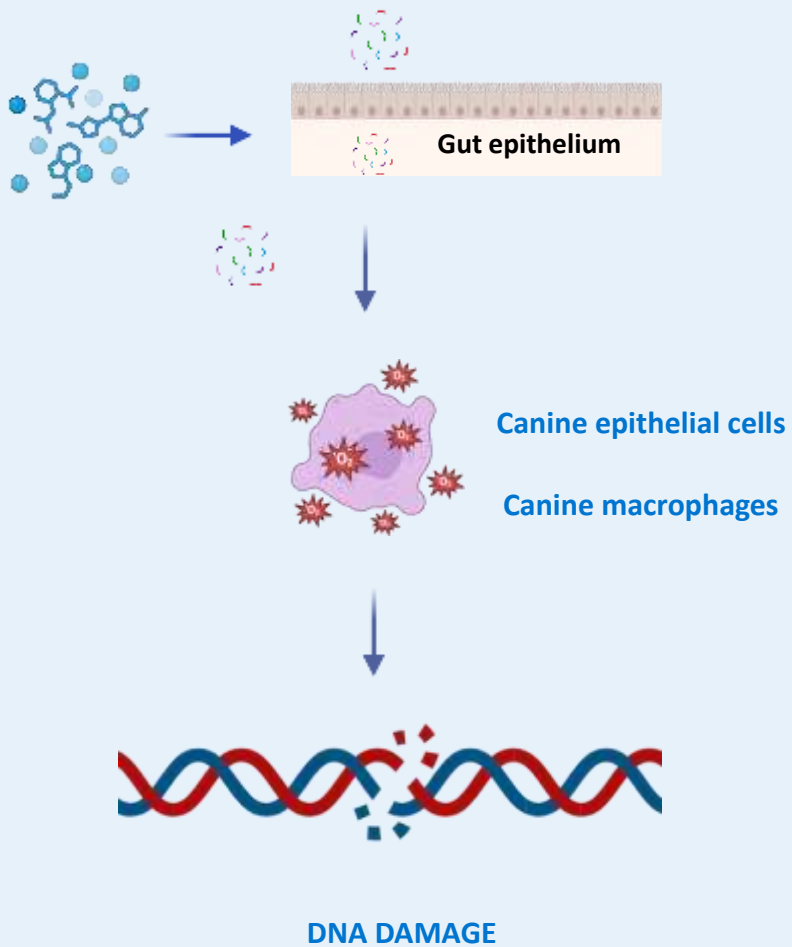
Total antioxidant activity - Intestinal step



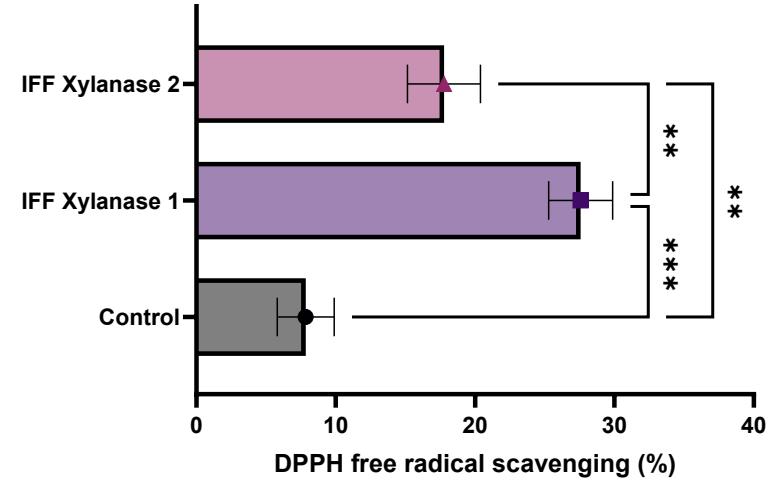
Polyphenols - Intestinal step



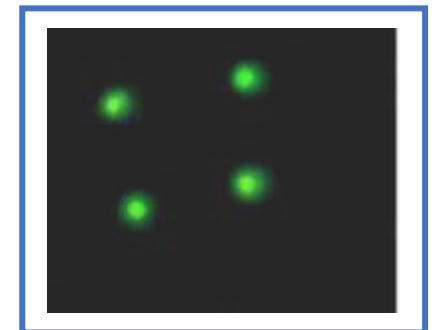
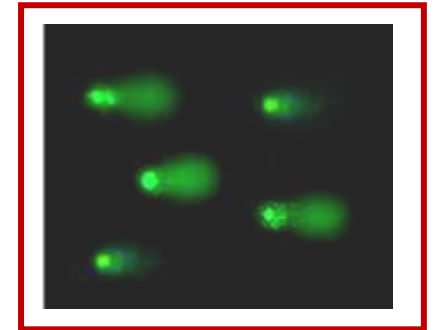
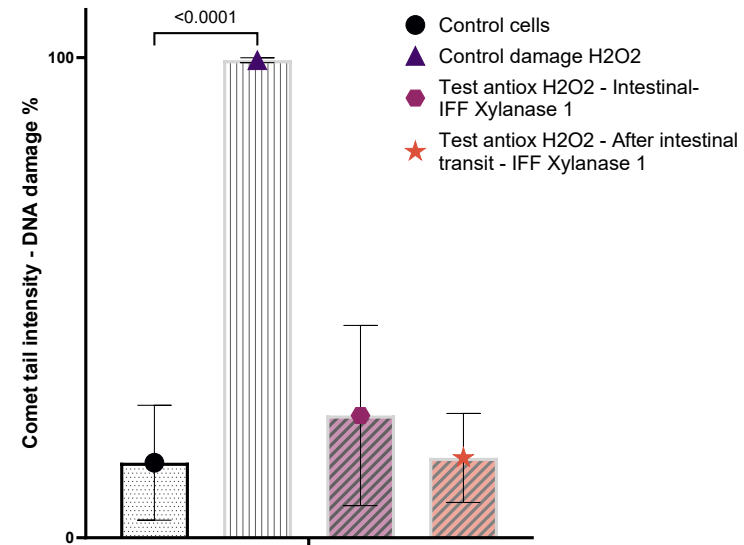
RESULTS



DPPH antioxidant capacity after intestinal transit



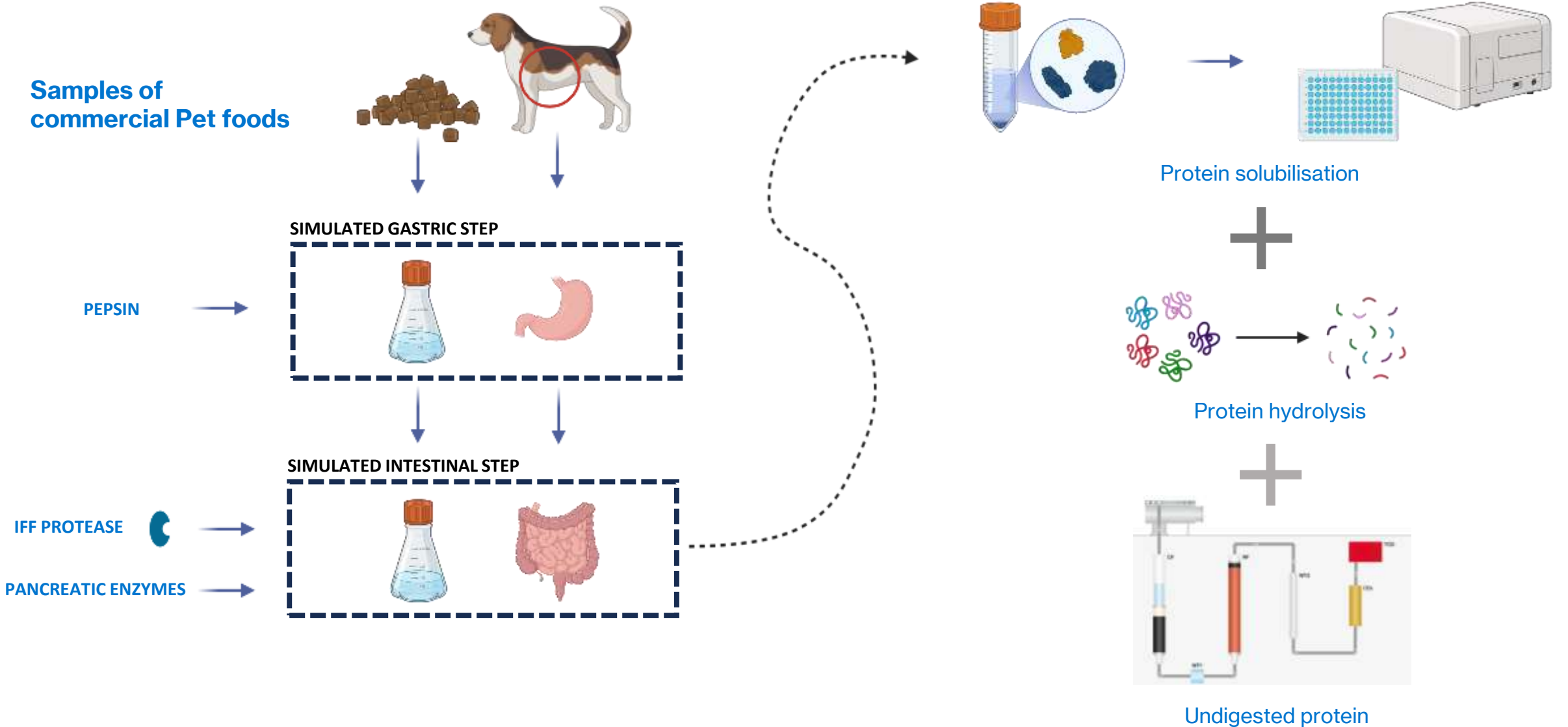
DNA Damage - Comet assay - Preliminary scoring



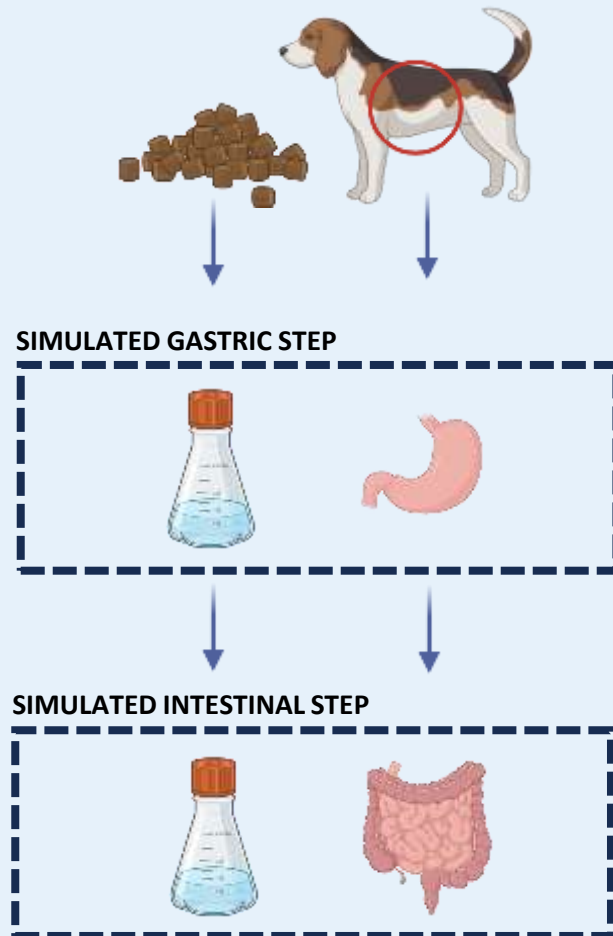
ENZYMES TO SUPPORT DIGESTIBILITY



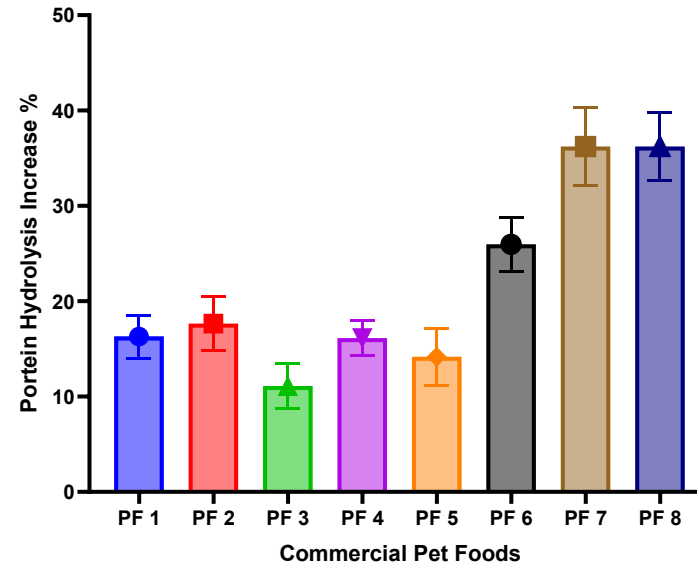
Gastric and Intestinal Protein Digestion



RESULTS

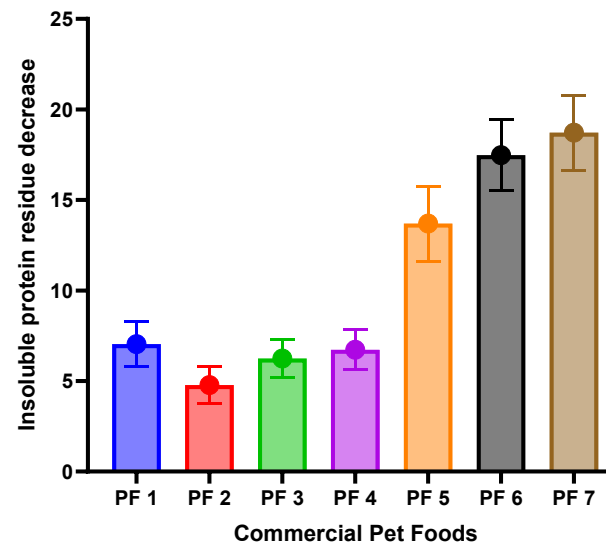


Increase in protein hydrolysis in presence of IFF protease



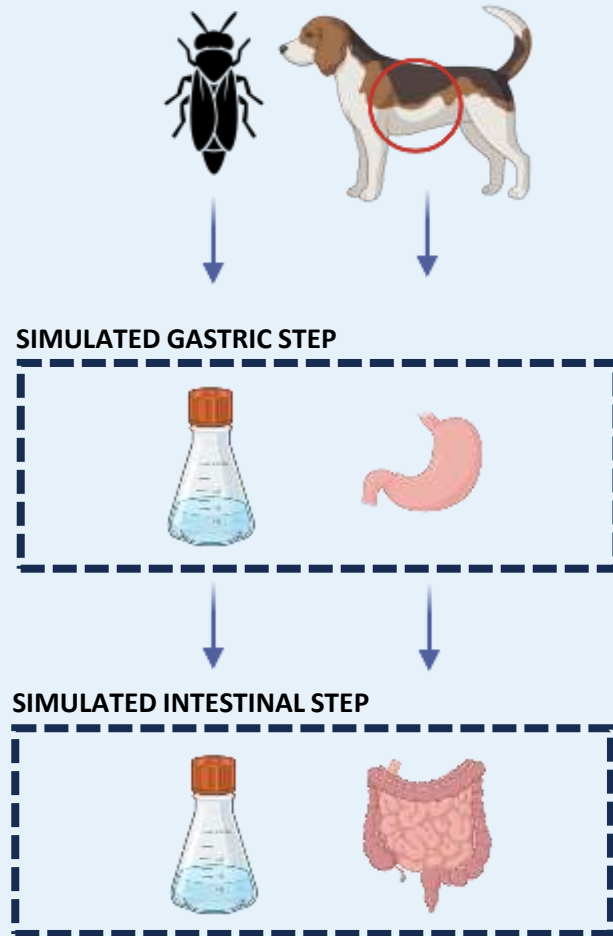
AVG *In vitro* increase 22.11%

Percentage reduction of insoluble protein (IFF protease)

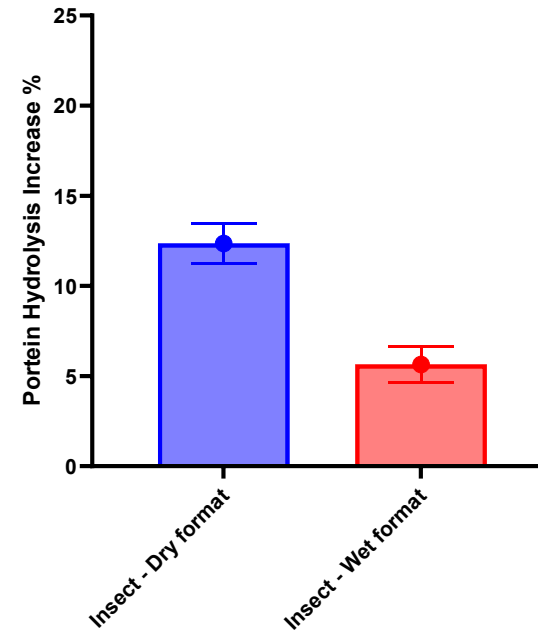


AVG *In vitro* reduction 10.67%

RESULTS (Insect protein)

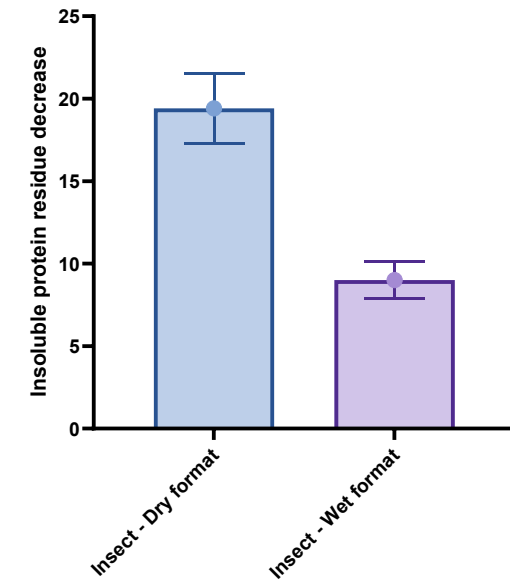


Increase in protein hydrolysis in presence of IFF protease



Black soldier larva protein.

Percentage reduction of insoluble protein (IFF protease)



Conclusions.

- Enzymes unlock nutrients already present in fibre-rich ingredients.
- Targeted enzymatic action releases trapped proteins and bioactives, improving nutrient access and utilisation.
- This enables higher functional value from alternative, sustainable raw materials.
- Improved nutrient availability supports digestibility, gut function, and healthy ageing outcomes.
- Enzymes are a scalable, cost-effective tool to future-proof pet food formulations.



Thank you.

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Where science
& creativity meet

Cross-Functional Core Team:

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