

# Significant reno-cardio-metabolic protection by the food additive FLEXOVITAL in a murine model combining unilateral nephrectomy and Western diet

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## INTRODUCTION

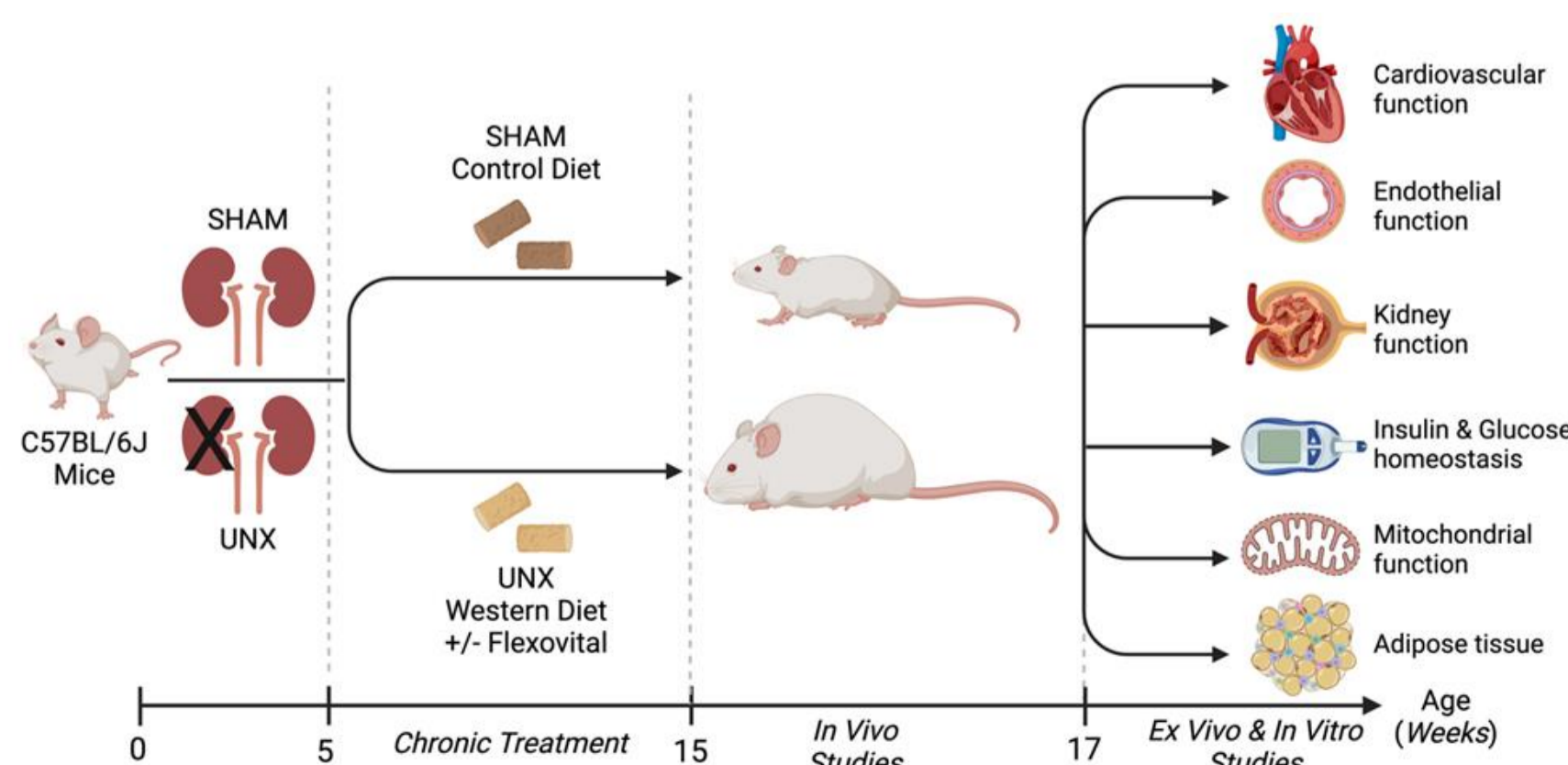
Cardiovascular complications are major threats in renal failure. We developed a mouse model in which a rapid development of cardiovascular injuries occurred (vascular dysfunction, hypertension, increased cardiac troponin leakage and fat depositions, disturbed glucose metabolism, reduced mitochondrial functions and systemic inflammation). This model can be used for studies of mechanisms of action and preventive treatment approaches.

## AIM

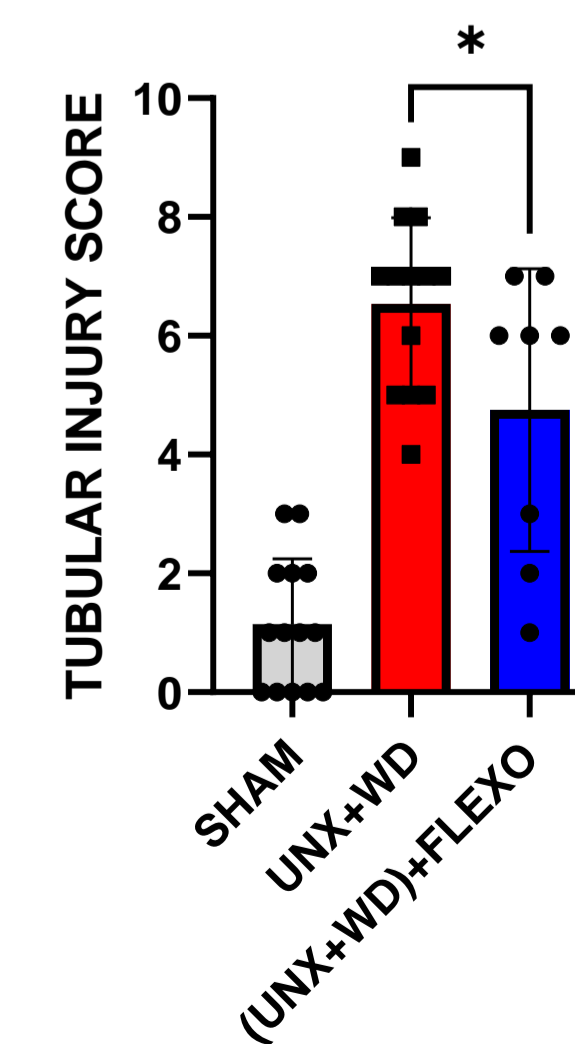
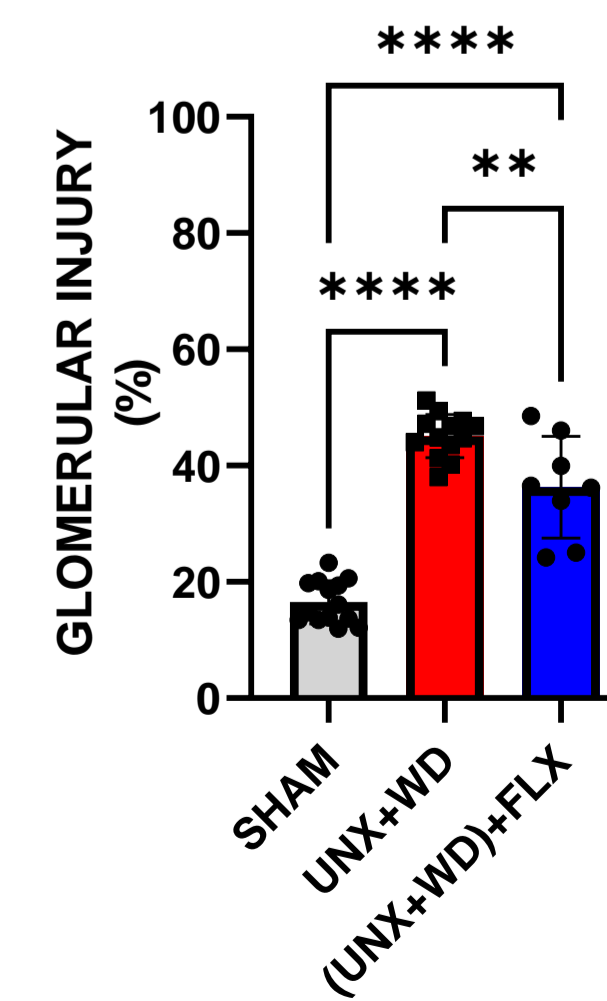
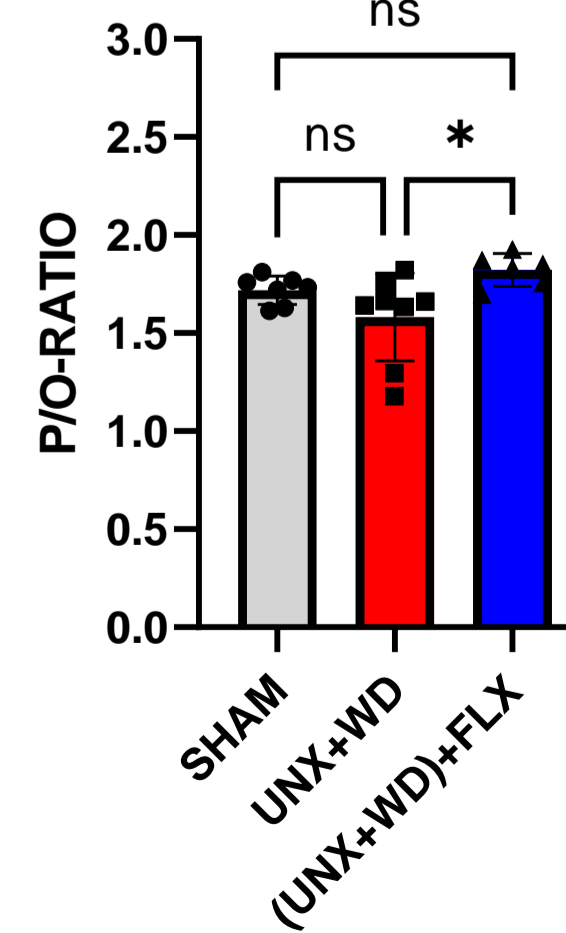
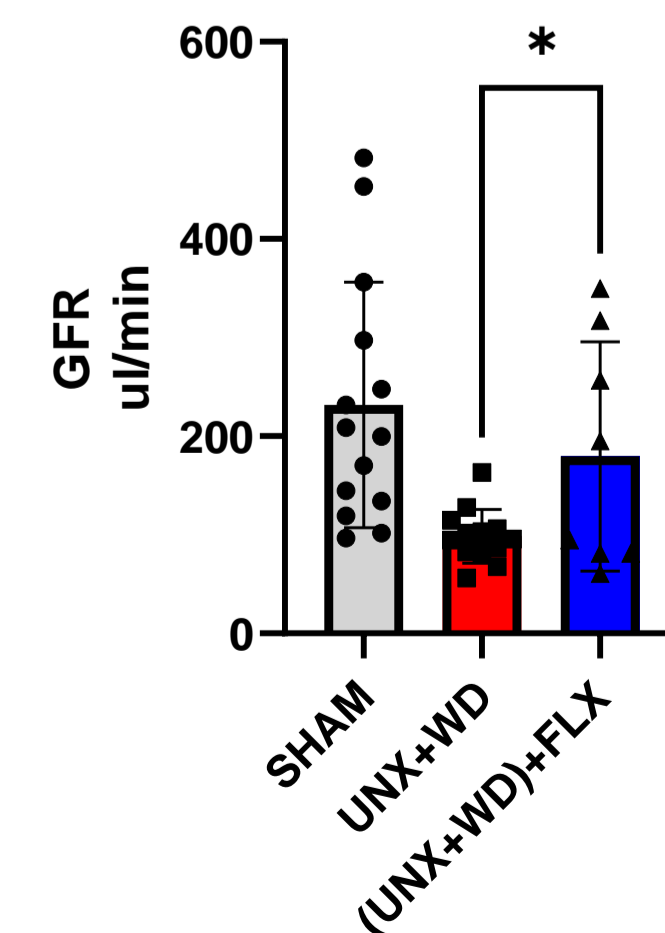
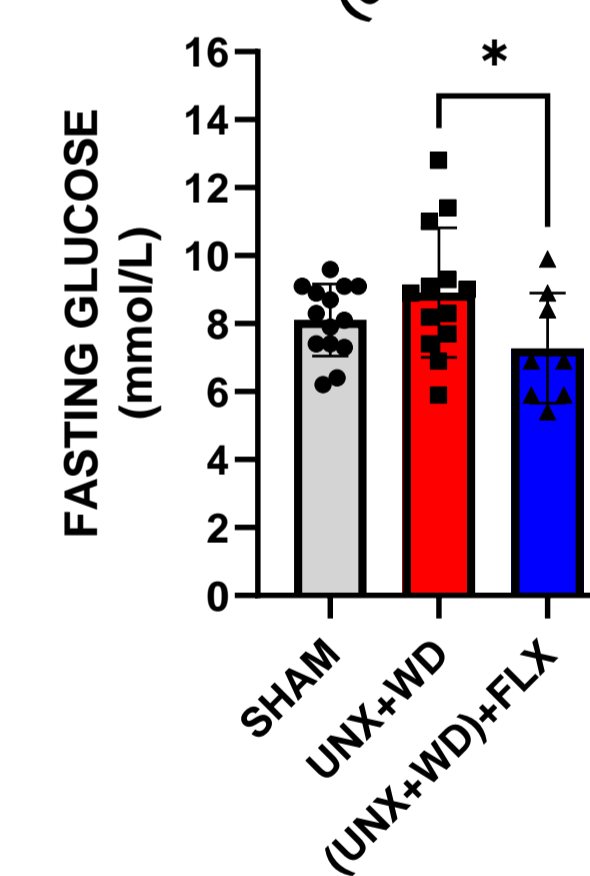
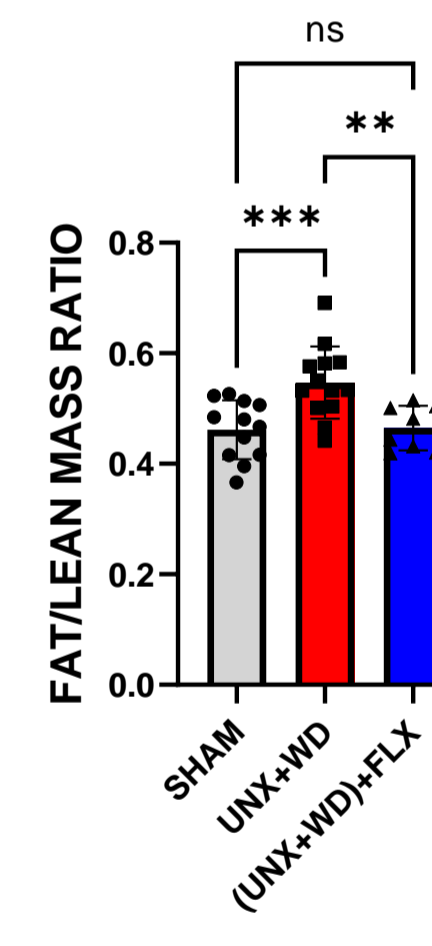
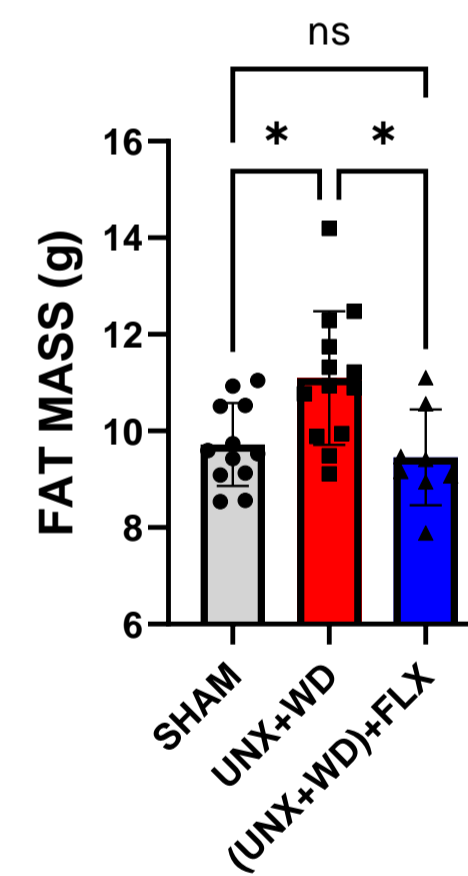
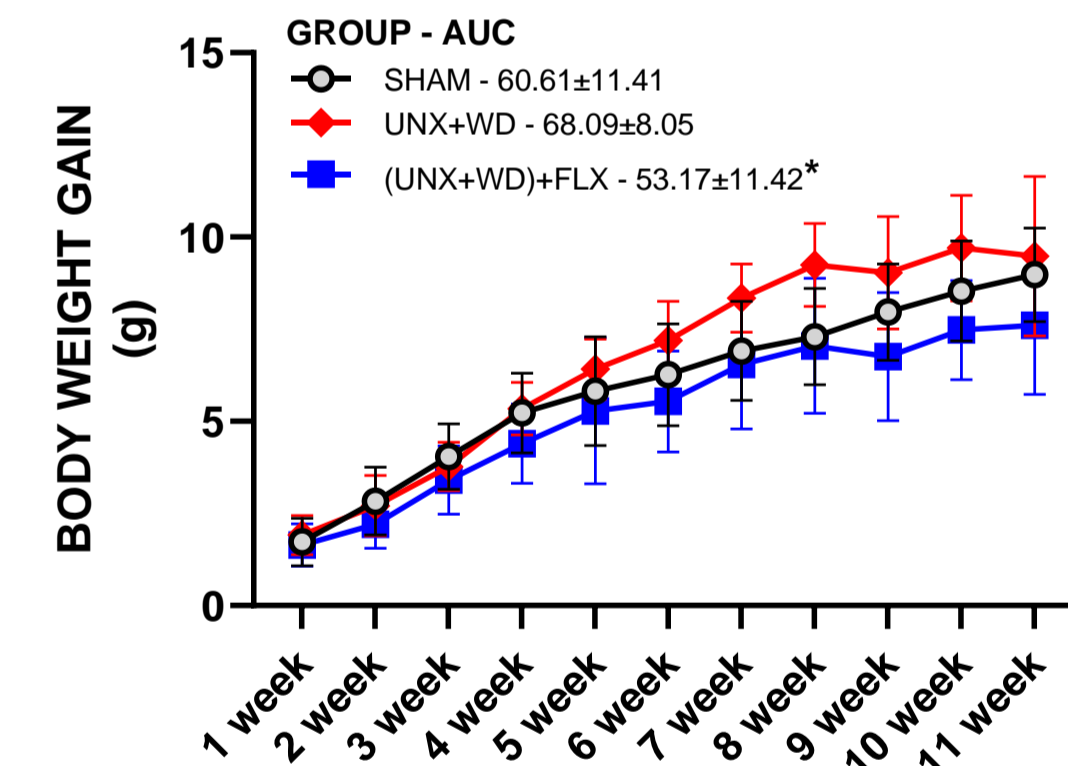
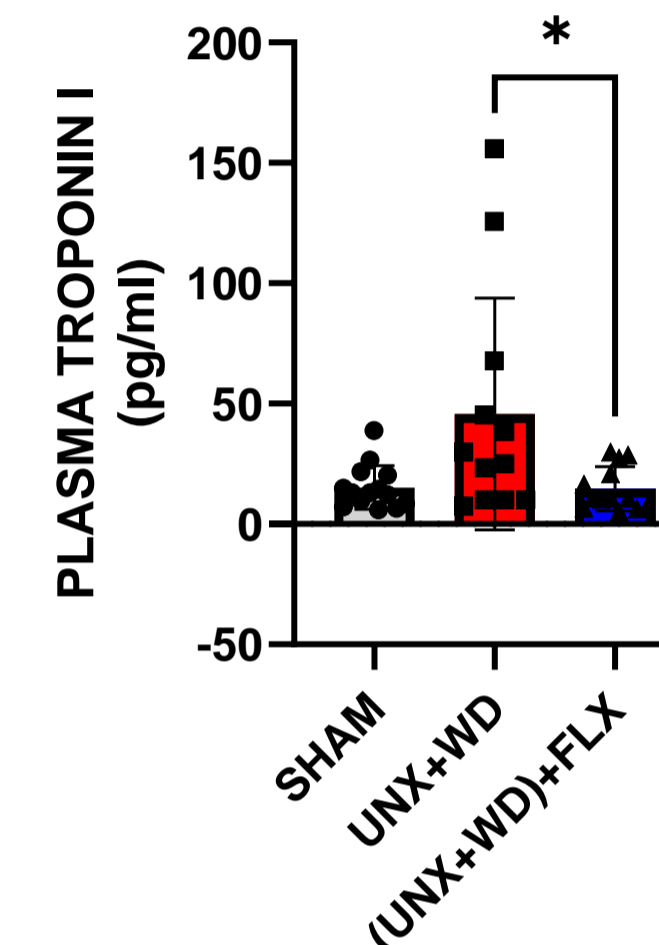
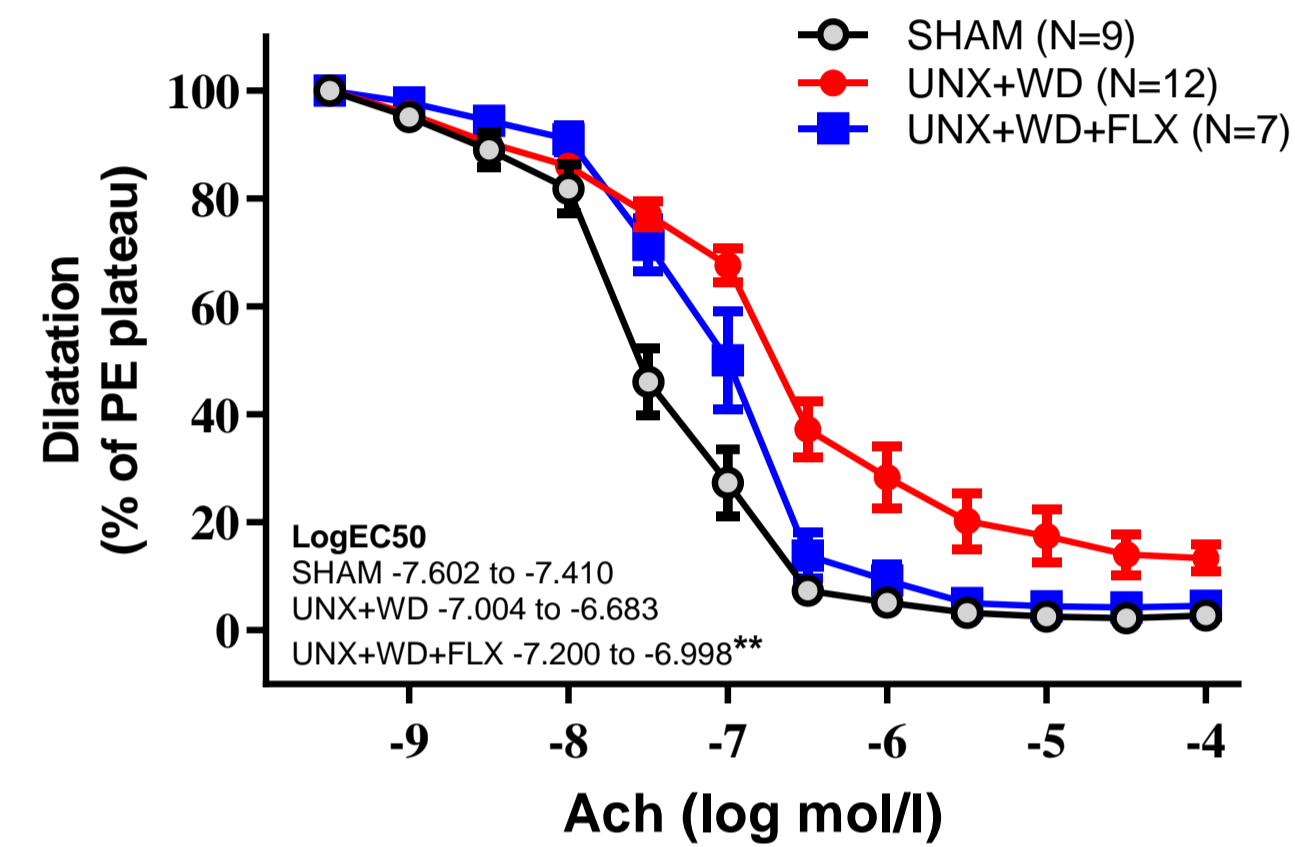
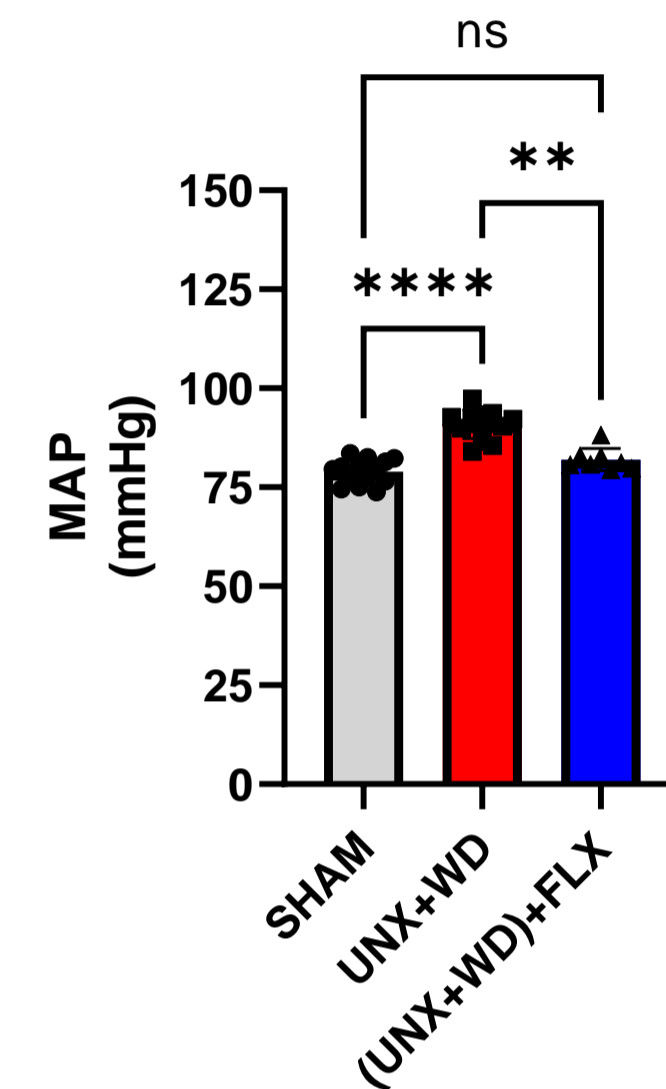
To investigate the therapeutic effects of a special food additive (FLEXOVITAL) in a newly developed mouse model of reno-cardio-metabolic disease, induced by moderate renal failure in combination with a special Western diet.

## METHOD

Male C57BL/6J mice (4 weeks old) were subject to unilateral nephrectomy (UNX), fed a Western diet rich in fat carbohydrates and salt (WD), and treated with FLEXOVITAL.



## RESULTS



## CONCLUSIONS

In the present multiorgan disease model, significant renal, cardiovascular and metabolic dysfunction/injuries emerge in mice with a moderate reduction of renal function when fed a Western junk diet rich in fat, carbohydrates, and salt. Significantly protective effects of dietary FLEXOVITAL treatment were noted for most of the assessed functional measurements.

## ACKNOWLEDGEMENTS

Swedish Research Council, Swedish Heart and Lung Foundation, NovoNordisk, Research Funds Karolinska Institutet, Research Funds Uppsala University, BioConcept AB.

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**DISCLOSURES.** Bengt Fellström

holds equity and warrant in Bioconcept

