

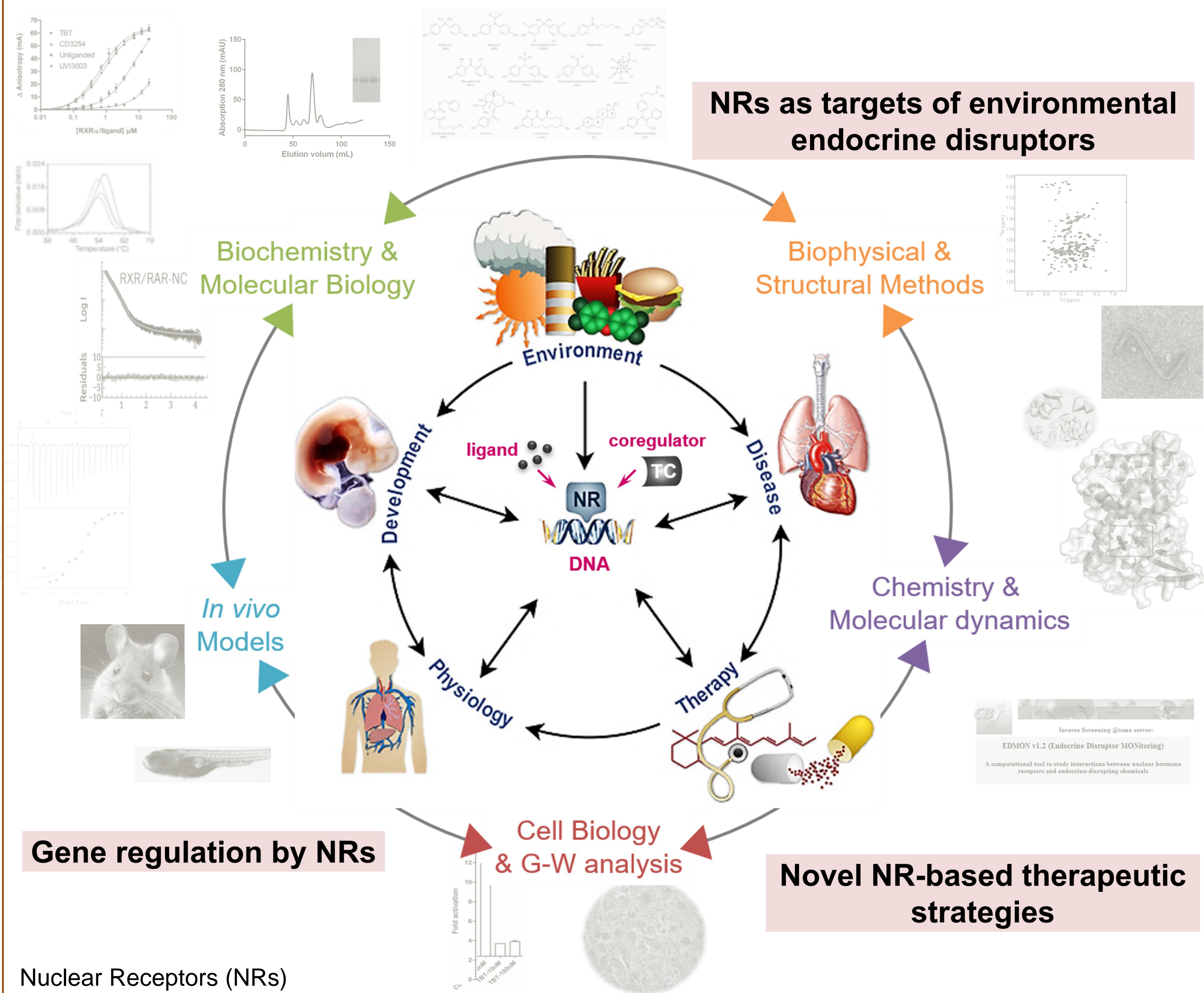
# Development of an inhibitor against the nuclear receptor DAF-12 from nematodes by structural and interaction studies



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## Overview of the research in the team



## The scientific context of the M1 project



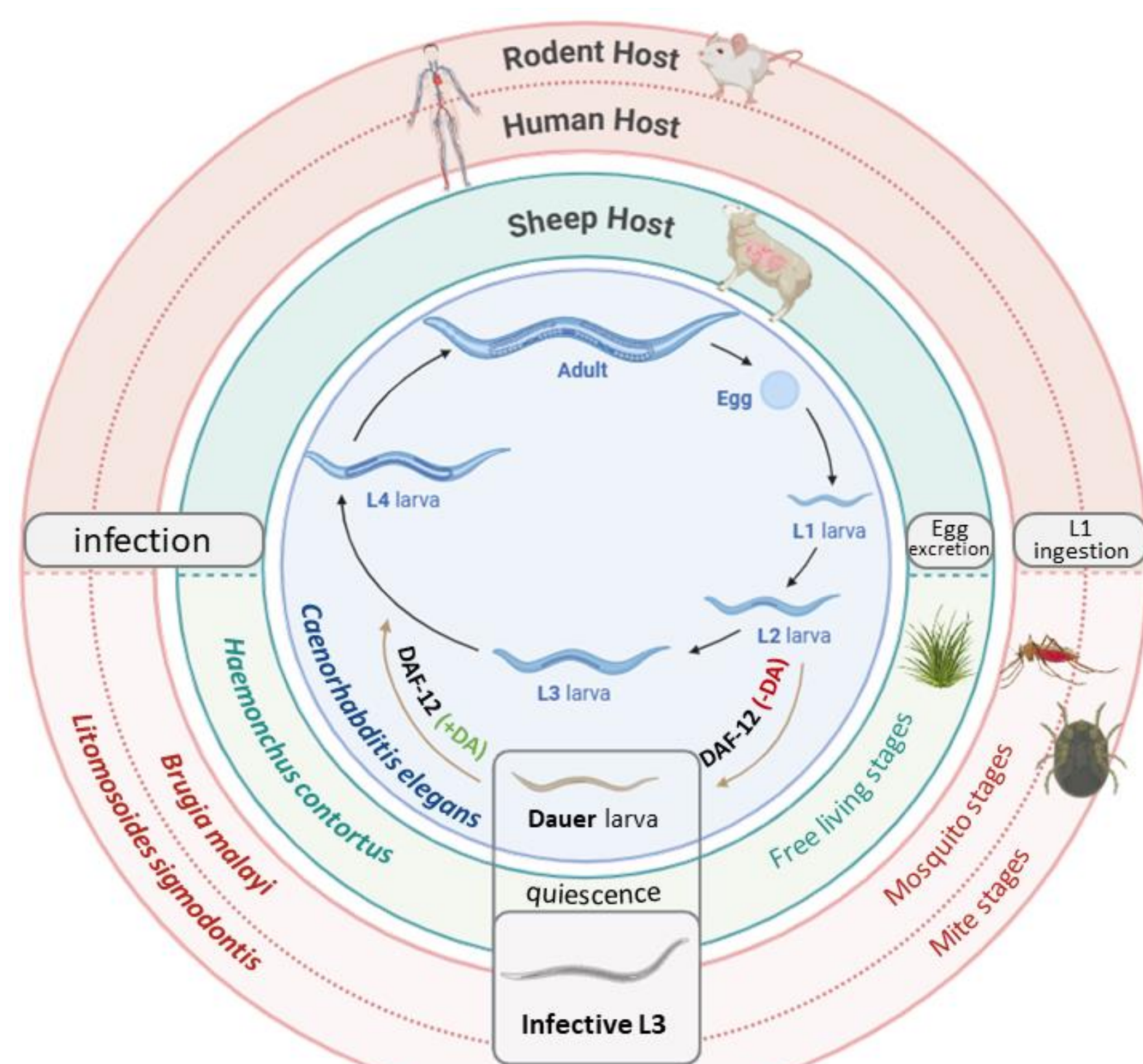
- Neglected Tropical Diseases
- Livestock and domesticated animals diseases
- Plant infection

- **RESISTANCE** due to extensive use of drugs
- **MODIFICATION OF PREVALENCE** due to climate change

**A global challenge in human and animal health and agriculture**

**Novel therapeutic strategies are needed**

## The goal and methodology of the M1 project

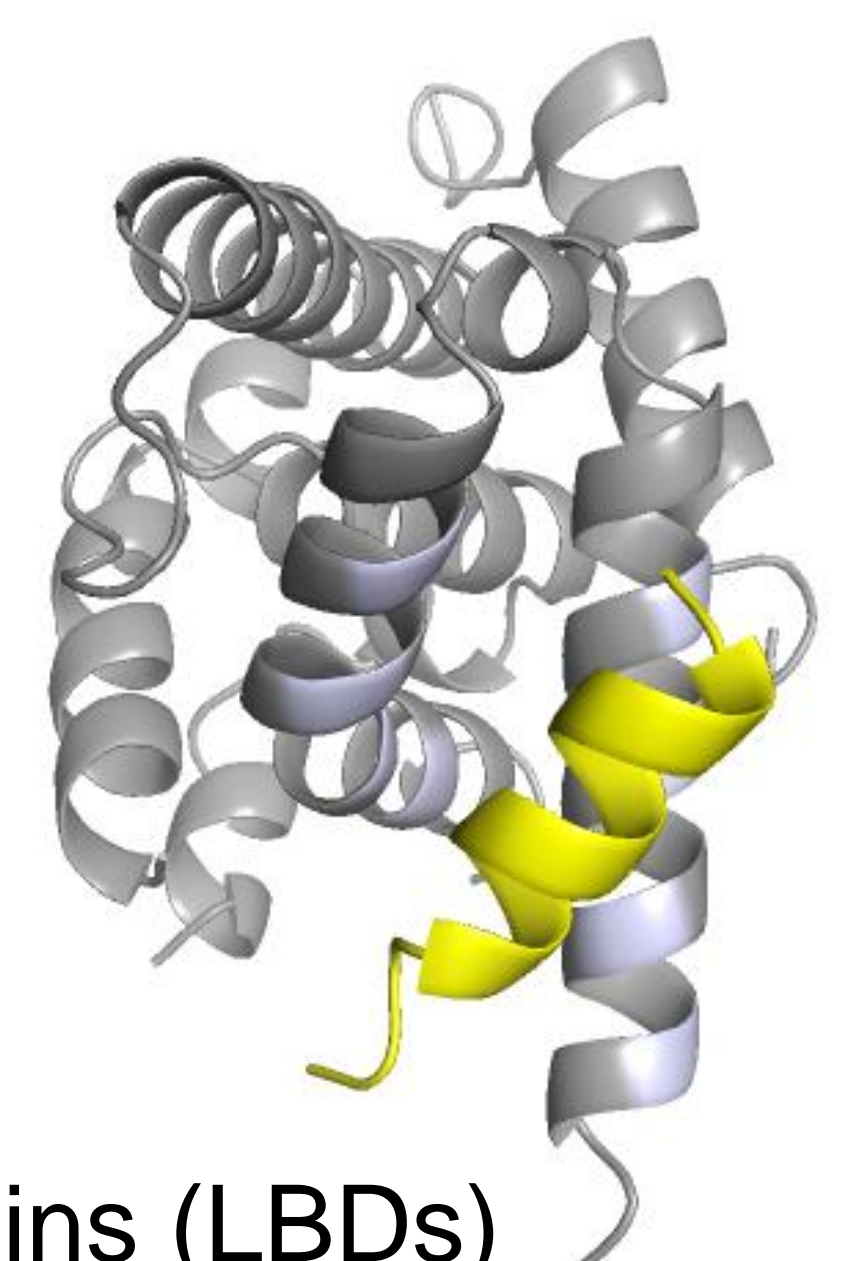


Inhibiting DAF-12 to block the infective L3 larval stage

Targeting NRs regulating infectious processes in parasitic nematodes

No drugs specifically target this critical stage making NRs a promising therapeutic target distinct from current anthelmintics

**Developing an inhibitor molecule from our newly discovered lead compound**



- Production and purification of DAF-12 ligand binding domains (LBDs)
- Biochemical and biophysical interaction studies with project-developed molecules
- Crystallographic studies of the LBDs in complex with the molecules of interest

## Main collaborations and financial supports

**P. Balaguer** (Cell biology, *IRCM*, Montpellier)  
**M. Amblard** (Chemistry, *IBMM*, Montpellier)  
**A. Lespine** (Pharmacology, *INTHERES*, Toulouse)  
**C. Martin** (Parasitology, *MNHN*, Paris)



EXPOSOME  
2025-2027



ANR DePAR  
2022-2026

ANR Din-R  
2026-2030