

Ecole Doctorale des Sciences Fondamentales

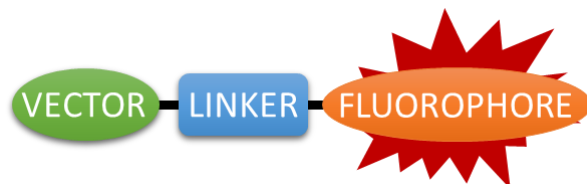
Title of the thesis: Design and synthesis of original fluorescent probes for use in microscopy on a model organism: *Caenorhabditis elegans*.

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Resume :

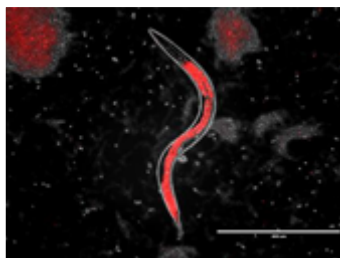
Following an active substance within an organism is a major stake. Indeed, this allows, among other things, to facilitate the discovery of new targets of interest. In order to do this, fluorescence microscopy is a particularly well-suited tool.

The aim of this project is to develop a fluorescent labeling technique to follow the fate of a molecule or a microorganism *in vivo*, in the intestine of the nematode *Caenorhabditis elegans*. For this purpose, a fluorescent probe will be synthesized and coupled to a molecule or a microorganism of interest via a potentially cleavable link.



Scheme of a compound of interest

After ingestion, we can follow the path of the vector of interest thanks to the transparency of the nematode, and study its fate and impact *in vivo*.



Example of an image obtained by microscopy on C. Elegans