Avril Coghlan, Ph.D.

Mikrobiologie

University College Cork

Born in 1977 in London
Studied Mathematics, Statistics and Genetics at Trinity College Dublin

SCHWERPUNKT

ARBEITSVORHABEN

Plastizität, Robustheit und Adaptation in Dauerstadien bei Nematoden

In this proposed Wiko fellowship I will study the dauer decision in C. elegans as an example of phenotypic plasticity. Specifically, in collaboration with Mark Viney and other members of the Adaptive Plasticity working group, I will develop a computational model of the dauer decision in C. elegans, to investigate three key questions:
1) Why do rates of dauer formation differ between different worm genotypes?
2) How does the network structure of the dauer pathway affect the phenotypic plasticity response?
3) Is the C. elegans dauer pathway fundamentally different in structure from pathways underlying programmed development?

Recommended Reading

Viney, M. E., M. P. Gardner, J. A. Jackson (2003). "Variation in Caenorhabditis dauer larva formation." Dev. Growth Differ. 45: 389-396.
Park, D., A. Estevez, D. L. Riddle (2010). "Antagonistic Smad transcription factors control the dauer/non-dauer switch in C. elegans. Development." 137: 477-485.

PUBLIKATIONEN AUS DER FELLOWBIBLIOTHEK

Coghlan, Avril (San Francisco, Calif.,2013)

Duplication and retention biases of essential and non-essential genes revealed by systematic knockdown analyses

https://kxp.k10plus.de/DB=9.663/PPNSET?PPN=1043717188