



Name: Dr Declan Gavin

| Degree | Awarding Institution | Topic/title |
|--------|----------------------|---|
| BSc | Maynooth University | Chemistry and Mathematics |
| PhD | Maynooth University | Design, synthesis and evaluation of organocatalysts in 1,4-conjugate additions to nitroolefins and alkylidene malonates |

Current research:

Overall Project title: T1; Advanced performance of biocatalysts

| Position | Company/institution | Key responsibilities |
|--------------------------------|-------------------------|--|
| Senior postdoctoral researcher | University College Cork | Discovery and exploitation of enzymes as catalysts in organic synthesis, undergraduate/postgraduate mentoring, |

Project 1: Application of hydrolases in the resolution of remote stereocentres

- Use of commercially available hydrolases for remote stereocentre resolution; heavily industry-focussed (target molecules)

Project 2: Discovery and application of novel biocatalysts from deep-sea sources

- Biocatalyst discovery and application with a focus on hydrolases; also investigating other biocatalyst families
- Multidisciplinary approach with extensive interaction with metagenomics and bioinformatics experts at UCC (P2).

Research expertise keywords:

Organic synthesis, asymmetric synthesis, biocatalysis, molecular biology, directed evolution/protein engineering, high-throughput screening.

Existing industry interaction to date - any secondments, placements, project work, etc.

As part of a targeted project, have regular communication with industry partners.

Additional information/hobbies/interests/expertise:

Gaelic football, music.

