

Dr Fiona Brennan

BSc Environmental Biology (UCD), PhD Microbiology (NUI Galway)

RESEARCH INTERESTS

Fate and transport of microbial enteropathogens and AMR in the environment

Microbiology of soil, manures, water and plants

Bacterial, soil and plant interactions

Microbial adaptation to ecological niches

Virulence and low-temperature adaptation of environmentally persistent *E. coli*

Ecology of functional microbial communities in soil and engineered systems

Biogeochemical cycling in agricultural systems, and greenhouse gas mitigation

CAREER PROFILE

2016-current Research Officer Teagasc (Irish Agriculture and Food Development Authority) within Environment, Soils and Land-Use Department/ Leader of Soil Microbiome Sub-program.

2016-current Adjunct Lecturer Microbiology, NUI Galway

2015-2016 Lecturer, School of Natural Sciences/Research Group leader Soil and Environmental Microbiology/ Principal Investigator Plant and Agricultural Biosciences Centre, NUI Galway

2012-2015 Research Scientist James Hutton Institute (JHI), Scotland. Permanent research position in Environmental microbiology

2011-2012 Postdoctoral Researcher in the French National institute for Agricultural Research (INRA) in Soil and Environmental Microbiology (co-hosted by Teagasc)

2009-2011 Teagasc Postdoctoral Fellow in Soil and Environmental microbiology. Teagasc Environmental Research Centre, Johnstown Castle, Ireland

SELECT REFEREED PUBLICATIONS

1. Somorin, Y., Abram, F., Brennan, F., O'Byrne, C. (2016). The General Stress Response Is Conserved in Long-Term Soil-Persistent Strains of *Escherichia coli*. *Appl Environ Microbiol.* 82:4628-40.
2. Brennan, F.P., Moynihan, E., Griffiths, B.S., Hillier, S., Owen, J., Pendrowski, H., and Avery, L.M. (2014) Clay mineral type effect on bacterial enteropathogen survival in soil. *Science of the Total Environment* 468–469: 302-305.
3. Brennan, F.P., Grant, J., Botting, C., O' Flaherty, V., Richards, K., and Abram, F. (2013) Insights into the Low Temperature Adaptation and Nutritional Flexibility of a Soil Persistent *Escherichia coli*. *FEMS Microbial Ecology*: 84: 75-85.
4. Moynihan, E., Richards, K., Ritz, K., Tyrrel, S., and Brennan, F. (2013) The impact of soil type, biology and temperature on the environmental persistence of non-toxicogenic *E. coli* O157 *Biology and Environment*: 113B: 41-46.
5. Brennan, F.P., Kramers, G., Grant, J., O' Flaherty, V., Holden, N.M., and Richards, K. (2012) Evaluating *E. coli* transport risk in soil using dye and bromide tracers *Soil Science Society of America Journal* 76: 663-673.