### Research theme
Population Health

### Supervisor
Dr Kevin McGuigan

**Web page**
https://research1.rcsi.ie/pi/kmcguigan

### Co-supervisor
Professor Ronán Conroy, Dept. of Epidemiology & Public Medicine

**Web page**
https://research1.rcsi.ie/pi/rconroy

### Title of PhD project
Evaluation of factors influencing success of randomised controlled field trials of household water treatments in developing countries

### Brief project description
**Summary**
Over the past 5 years the RCSI solar disinfection group has conducted a number of large scale randomised controlled field trials (RCTs) of solar water disinfection (SODIS) in several developing world locations such as Cambodia\(^1\), South Africa\(^2\), Zimbabwe and Uganda\(^3\). Similar RCTs have been attempted by other research groups elsewhere in India\(^4\) and Bolivia\(^5\). The success of these RCTs has varied considerably from location to location. The aim of this PhD project is to:

1. Return to selected locations (Cambodia, S Africa, Zimbabwe, Bolivia) to quantify how sustainable these interventions have been since the original intervention study finished. Is SODIS still in use?
2. Interview participants (householders, field staff, etc.) and determine what factors influenced (i) the success/failure of the study and (ii) the decision to continue/stop using this water treatment.
3. Use the outcomes from the survey to inform study design of future RCTs in the developing world.

Ethical approval will be required for the field survey but will be similar in form to those already approved in the Uganda Study. No animal handling/training is required and there are no commercializable technologies resulting from this project.

### References

### Skills & techniques
- Study design
- Epidemiology/Medical Statistics
- Public Health
- Project monitoring & evaluation
- Logistics of development aid
- Communication/presentation skills
- Project writing