ClubBioMed PhD

This README is a no-nonsense explanation of the core of a practice based PhD

Look at the convergence of research in bacterial communication and behaviour with digital and technical culture from the perspective of a participatory art practice.

Convergence examples

\* Lab-on-a-chip developments

\* BioEngineering, Biological computation and Bioinformatics

\* Biological behaviour as models for technological engineering

\* DIYbio: Makers meet microbes

Perspective of the art practice

\* I don’t make spectacles of visual material or interactive art that offers materials for manipulation.

\* I do make messy participatory situations where people and knowledge can get entangled and foster forms of agency, literacy and ultimately resilience.

\* I make [Critical Kits](http://kits.re-dock.org/) and materials that support and embody these situations

\* I see the sciences and the technical not as subjects for artistic spectacle, speculation or critique but a technical culture for artists to critically participate in.

\* I want to widen the participation in technical and scientific literacy

\* I’m an embedded participant in maker and technical culture based at makerspace and co-working space DoESLiverpool

\* I want to contribute to the development of combined arts and biological practice at Lancaster University

### What Do I Want To Find Out?

\* What are the opportunities for agency, literacy and resilience in this space?

\* What are the opportunities to entangle scientific literacy with more diverse knowledge practices, practitioners and widen participation?

\* What Critical Kits can be made to embody and materialise these opportunities?

\* How do kits further embodied interaction?

\* How can kits contribute to the relation between STS research and artistic practice?

\* What is the nature of challenge in terms of literacy and agency in kit responses to bio-engineering?

\* What approaches informed by these questions can be made in the DIYBio space?

\* What are the scaling opportunities for Critical Kit and DIYbio practices along the lines of [RCA's Future Makespaces in Redistributed Manufacturing research](http://futuremakespaces.rca.ac.uk/) and MCQN ltd [IoT Maker scaling research](https://indie.mcqn.com/)

How Am I Going To Do It?

\* It's practice based, building on work developing kits and messy encounters with STEM, IoT, Maker and Network Culture with [FACT](http://fact.co.uk/), [Re-Dock](http://re-dock.org/), [Critical Kits](http://kits.re-dock.org/) and [Domestic Science](http://domesticscience.org.uk)

\* Make kits that embody and support artistic encounters in a range of social spaces and contexts from laboratory to local library, charity shop to indoor market, conference to country show, living room to allotment, makerspace to National trust property.

\* I will interact with a research group of biomedical researchers working on aspects of communication & chemotaxis/movement in biological systems using the microbial and insect species already being studied at Lancaster. This informal group \*ClubBioMed\* co-founded with Dr Rod Dillon embeds maker culture and participative art practices with technology within the Biomedical & Life Sciences at Lancaster University

\* Connect these groups with the wider arts, maker and tech community of the NorthWest

\* [DoESLiverpool](http://doesliverpool.com/)  
 \* [Domestic Science](http://domesticscience.org.uk/)  
 \* Network of libraries in the North West: Merseyside, Barrow and Morecambe   
 \* F[ACTlab](https://www.fact.co.uk/)  
 \* [OSHUG](http://oshug.org/)  
 \* [UK Maker Belt Association](http://www.makerbelt.org.uk/)

\* Stimulate crosstalk with novel research groups and informal clubs to widen the participation in technical and scientific literacy within the North West of the UK.

\* Use this crosstalk to foster critical approaches to art and science collaborative practice.