**A universal platform for crystal polymorph discovery**

*Professor Jon Steed and Dr Sharon Cooper (both Durham University)*

Covid-19 has acutely highlighted the need for new drugs. Even after a drug has been successfully formulated, however, it runs the risk of its effectiveness being derailed by a late-appearing, more stable polymorph. This is because bulk solution and melt crystallization experiments are unable to guarantee that all drug polymorphs will be identified. Worse still, the most stable polymorph may not be found, resulting in a ticking time-bomb as demonstrated by the infamous Ritonavir case. This project aims to solve this problem in ways that are tailored towards the needs of the pharmaceutical industry by identifying a universal platform for crystal polymorph discovery based on soft matter systems developed collaboratively in the groups of Dr. Sharon Cooper and Prof. Jon Steed in Durham.