

# **Institute for Complex Systems and Mathematical Biology (ICSMB) Aberdeen**

## **Non-equilibrium oriented research activity:**

**Transport phenomena in nonlinear lattices (anomalous conductivity, fluctuations, negative temperatures)**

**Collective phenomena in active matter (swarming, active nematics, self-propelled particles)**

**Emergence of collective behaviour in neural networks (information processing, network structure, synchronization, robustness)**

**Large-scale metabolic networks (functional properties, starch partitioning, circadian clock)**

**Synthesis of proteins (translation, transcription, ribosomes, molecular machines)**