2002: Synbio company TMD Renewables Ltd is founded as a company that can produce biofuels from waste. Funding from the Research Councils enables the company to develop its idea.

2003: Scientists at the University of Glasgow receive Research Council funding to study the structure and composition of microbial communities used in waste management which can be used in engineering design.

2003: A University of Glasgow researcher is awarded a Research Council Fellowship to develop mathematical models of microbial communities as a precursor to engineering and optimizing these communities for wastewater treatment or for use in microbial fuel cells.

2004: A £1.7m Joint Synthetic Biology Initiative to fund 14 Research Council-funded projects across 12 countries is announced by Research Councils. SynbiCITE, SynBio2Net, and SynGEM are funded. The activity of the new substance, which captures the energy of sunlight and uses it to drive useful chemistry, is announced.

2007: University of Glasgow researchers receive RCUK funding to develop a method to create synthetic prostaglandins in only a few hours using microorganisms. A millisecond pulse of light is used by Research Councils to engineer enzymes that can copy DNA and incorporate synthesized amino acids into its proteins.

2009: A study published in the journal ‘Nature’ reports that scientists can now add new genetic material to cells to make them function like engineered enzymes. Researchers at the University of Glasgow, funded by the Research Councils, are using rational protein design to convert a water-soluble protein structure into one that can move across a membrane to prevent proteins that could be used in desalination and water purification.

2010: Researchers at the University of Glasgow, with RCUK and NSF funding, are using synthetic biology to develop an artificial ‘leaf’ that uses energy from sunlight to produce liquid fuel, replacing the process of photosynthesis.

2011: RCUK-funded scientists redesign a cell's machinery for producing proteins so that it reads the genetic code in quadruplets. This system, which does not interfere with normal gene expression, allows the cell to produce new medicines and enzymes which could play an important role in medicine and perfumery.

2012: Scientists supported by the Research Councils expand the genetic code of yeast to create a new class of genetic material that will enable the study of synthetic biology and its application to new medical treatments.

2013: Scientists at the University of Glasgow, supported by RCUK, design small protein molecules that, when combined, form a hollow sphere. The sphere could be used as a protein delivery system for new cancer treatments, or delivered to cells to deliver diseased tissues in the body.

2013: Using bacteria engineered with novel gene pathways, UK scientists discover the molecule that inhibits HPV-1, the protein that enables the survival of cancer cells at low oxygen levels. The identification of the molecule could lead to new cancer treatments.

2013: RCUK-sponsored chemists from the University of Bristol develop a method to create synthetic prostaglandins in only a few hours—compared to 20 using conventional technologies. Prostaglandins regulate a range of activities including blood circulation, digestion and reproduction in the human body.

2013: As part of a larger ‘Synthetic Biology for Growth’ programme, the Research Councils wrote applications for up to six multidisciplinary Synthetic Biology Research Centres.