SULSA
Scottish Universities Life Sciences Alliance

SULSA's Aims

SULSA aims to enhance Scotland's vibrant life sciences research community by improving opportunities for collaboration, funding and translational research

Globally Competitive

Making Scottish life sciences research more globally competitive by pooling resources from leading universities

Strategic Collaboration

Strategic collaboration provides enhanced quality, success, partnerships and value for money

Breaking Silos

SULSA breaks down the silos and builds critical mass increasing university capacity, outputs and impacts

Global Credibility

Pooling enhances research, training and global credibility, further raising the level of Scotland's world-class universities

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Strategic Aims

- Enable collaborative partnerships and build more competitive consortia
- Position Scotland as a single research site when it makes good sense to do so
- Support early career researchers to develop their independent research career
- Build on existing life sciences facilities in Scottish Universities
- Develop collaborative arrangements with industries

University of Aberdeen
University of Dundee
The University of Edinburgh
University of Glasgow
Heriot-Watt University
Robert Gordon University Aberdeen
University of St Andrews
University of Strathclyde Glasgow

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What can SULSA do for Scotland's researchers?

- Build competitive consortia
- Improve their networks
- Seed-funding for EU projects
- ECR exchanges (International)
- Access facilities
- Support new facilities (e.g. NPSC, Scottish CryoEM facility)
- Sponsor Scottish Networks or thematic events

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Research Themes

Development and Regulation

This theme focuses on understanding how cells and organisms develop, and how this is regulated on a cellular level

Understanding and Treating Disease

This theme focuses on chronic, autoimmune and infectious diseases, finding ways to better treat and prevent them

Ecosystems

This theme focuses on how different biological communities interact with one another, and their environment

Technology and Analysis

This theme focuses on enabling technologies that are key to driving innovative research forward

Current SULSA Activities (1)

- Government and funding body responses
- Panel Life Sciences Scotland Policy conference
- Funding landscape seminars and report
- Skills investment plan for chemical and life sciences
- PG/Postdoc Industrial placement scheme (Interface)
- Horizon scanning
- Mentoring report
- Drug development in Scotland report

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Current SULSA Activities (2)

- AMR remit (ScotGov group Controlling Antimicrobial Resistance In Scotland Group; CARS)
- ECR skills development events
- Facilities support (CryoEM, NMR bid)
- Edinburgh Dementia Centre
- ELF / IMI bid support (short proposal submitted)
- Seed funding
- Support for Scottish research networks (Microbiology, NextGenBug, Metabolomics, Imaging, DNA replication)

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Industrial strategy challenge fund

Healthcare and medicines

To develop first-of-a-kind technologies for the manufacture of medicines. The aim is to speed up patient access to new drugs and treatments.

Robotics and artificial intelligence

To improve the productivity of industry and public services, innovations using artificial intelligence (AI) and robotics systems will be developed, that can be deployed in extreme environments. This includes industries such as offshore energy, nuclear energy, space and deep mining. Proposals for research hubs are currently in progress.

Clean and flexible energy

To design, development and manufacture of batteries for the electrification of vehicles to support the business opportunities presented by the low carbon economy and tackle air pollution. A call for a research institute is currently open.

Driverless vehicles

The fund will invest in collaborative research and development projects to develop the next generation of A.I. and control systems need to ensure the UK is at the forefront of the driverless cars revolution.

Manufacturing and materials of the future

The fund will develop new, affordable, light-weight composite materials for aerospace, automotive and other advanced manufacturing sectors.

Satellites and space technology

A satellite test facility will be established. This will support new launch technologies, manufacturing and testing capabilities to construct future satellites and deliver payloads into orbit.

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From data to early diagnosis and precision medicine

- There are fatal diseases that take years to develop before they present symptoms.
- Developing effective treatments - such as for pancreatic cancer, which develops on average 14 years before symptoms present - becomes progressively harder.
- The challenge is to combine the wealth of data created by UK researchers with real-world evidence from our health service.
- That will allow industry to create new products and services that will diagnose diseases earlier and help clinicians choose the best treatment for individual patients.
- This will save lives and set the UK at the forefront of a growing global market in diagnostics.

Healthy ageing

- By 2040, one in 8 people in the UK will be aged over 75 – an increase from one in 12 today.
- Staying active, productive and independent is important to our increasing numbers of older people.
- The challenge is to innovate, so older people’s aspirations are met and that better, more effective care can support an independent lifestyle as they age.
- In working together, the government and industry can address the challenges of ageing while capturing a growing global market.

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Transforming food production: from farm to fork

- The world will need 60 per cent more food by 2050 to allow us to feed 9 billion people, and demand for water is expected to rise by 20 per cent in the agriculture sector alone.
- For this to be possible, the way we produce our food needs to be significantly more efficient and sustainable.
- Using precision technologies we can make that a reality: transform food production while reducing emissions, pollution, waste and soil erosion.
- Putting the UK at the forefront of this global revolution in farming will also deliver benefits to farmers, the environment and consumers, as well as creating growth, jobs and exports.

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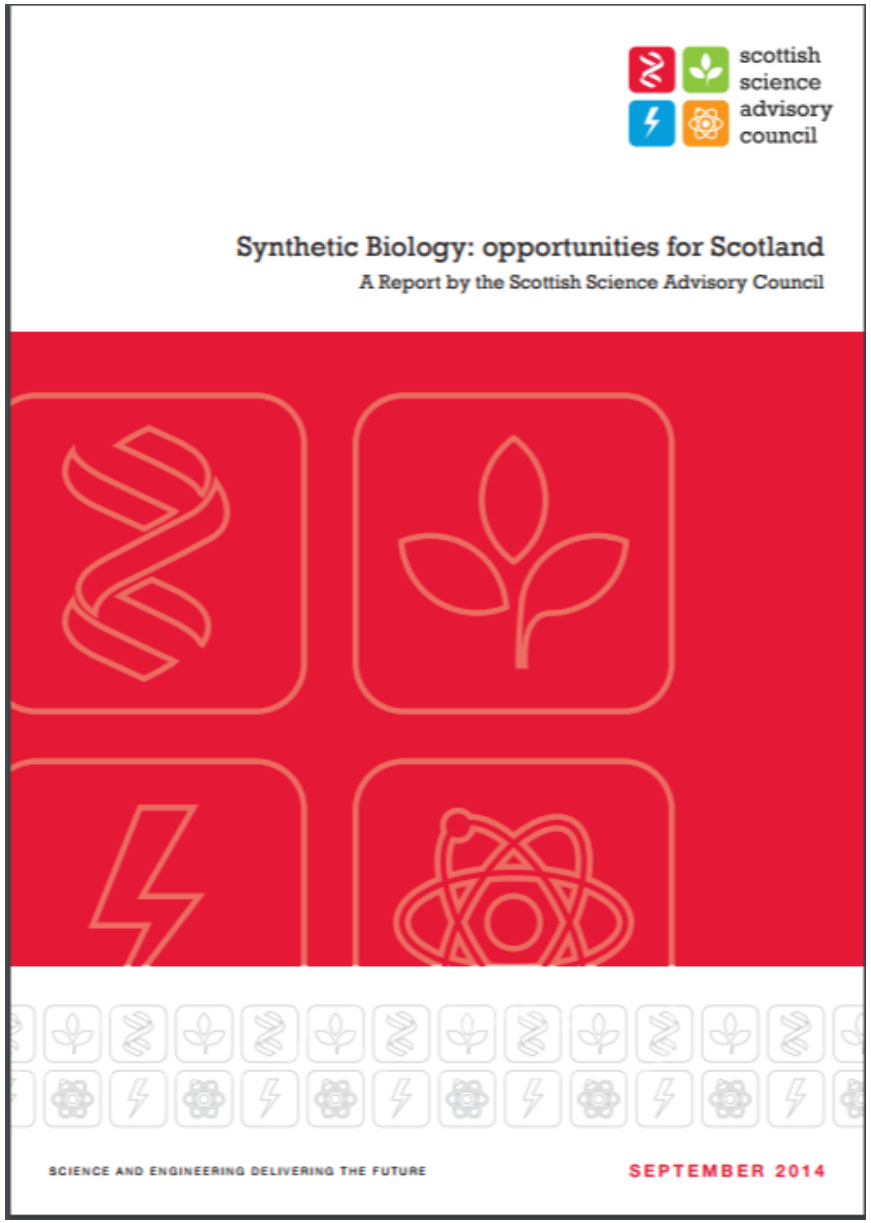
ingenza

Celtic Renewables

CelluComp
sustainable materials

GlycoMar



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ingenza

- Founded 2002
- Edinburgh spinout
- 44 staff
- Synthetic biology
- Strain development
- Biofuel, food, new chemical syntheses

Celtic Renewables

- Founded 2012
- Napier spinout
- 8 staff
- Biobutanol from whisky residue

GlycoMar

- Founded 2005
- Oban based
- 3 staff
- Anti-inflammatory polysaccharides from sea organisms

CelluComp
sustainable materials

- Founded 2007
- Fife based
- 6 staff
- Cellulose based materials

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the antibody company

- Biocity

Biologics (antibodies, enzymes etc.) are the predominant modern medicine

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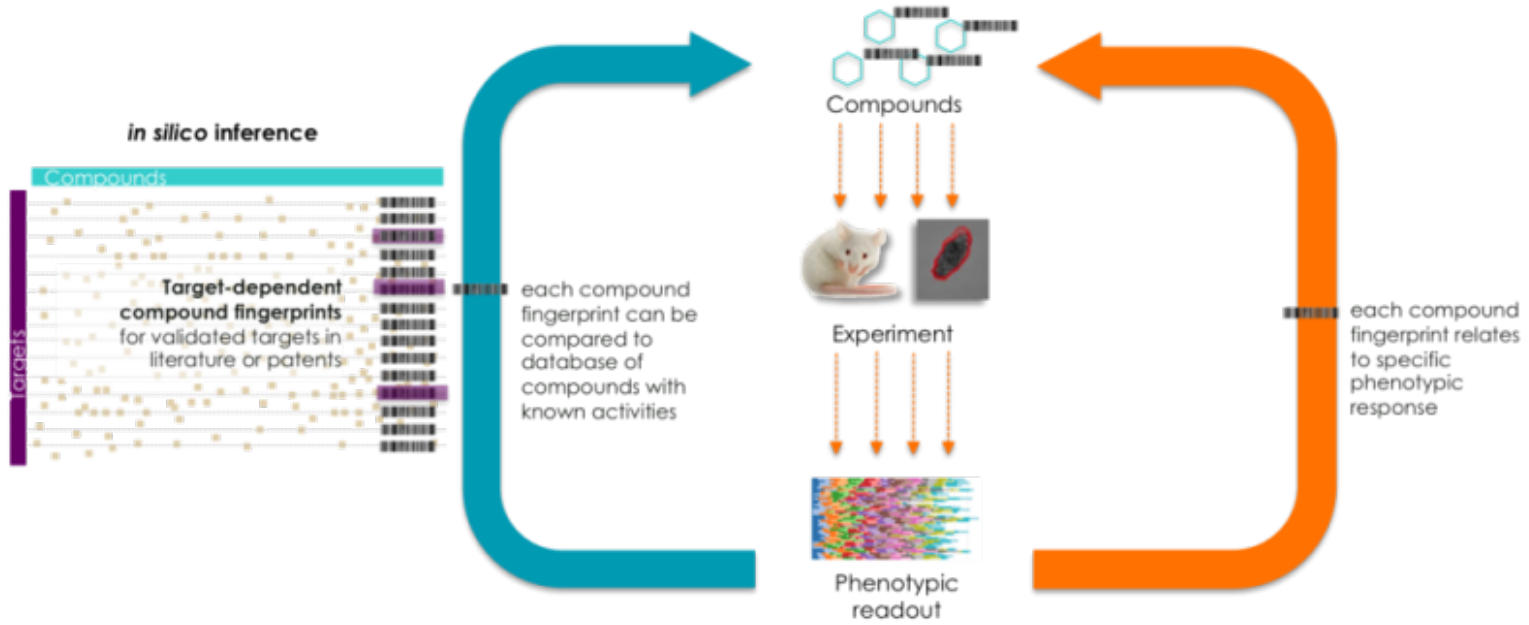
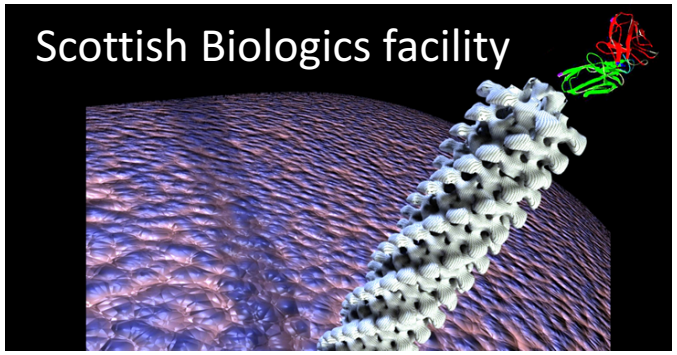
Exscientia
DRIVEN BY KNOWLEDGE

- Dundee
- >12 employees (rapid growth)
- AI in drug discovery



SynthSys
Centre for Synthetic and Systems Biology

Glasgow Polyomics
www.polyomics.gla.ac.uk



Drug Discovery Unit

NATIONAL PHENOTYPIC SCREENING CENTRE

Edinburgh imaging alliance

UK Dementia Research Institute

Scottish Macromolecular Imaging Centre

European Lead Factory

Innovation Centres

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