

STRATEGIC INITIATIVES



Precision Oncology Ireland (POI)

unites universities, charities, industry, and healthcare to advance personalised cancer treatment. Led by SBI, it applies systems approaches, integrating multi-omics, imaging, and clinical data via computational modelling, to understand cancer complexity, improve diagnostics, reduce unnecessary treatments, and accelerate development of targeted, patient-specific therapies.



MAGIC-I is a five-year nationwide study embedding genomic sequencing in childhood cancer care, aligned with Ireland's National Strategy for Accelerating Genetic and Genomic Medicine. Co-led by SBI and Children's Health Ireland, it uses whole genome sequencing, RNAseq, advanced analytics, and Digital Twins to enhance diagnosis, personalise therapies, and strengthen genomic infrastructure.



CONTACT

SYSTEMS BIOLOGY IRELAND

University College Dublin
Belfield, Dublin 4
Ireland

+ 353 (0) 1 716 7331
SBIADMIN@UCD.IE
WWW.UCD.IE/SBI



Using
SYSTEMS BIOLOGY
approaches to advance
**PERSONALISED
MEDICINE**

OUR APPROACH

Systems Biology Ireland (SBI) is a leading research centre distinguished by its in-house expertise in both experimental and computational biology.

SBI's team of systems biologists are uniquely trained to work across disciplines, integrating complex datasets and interpreting biological systems with a deep understanding of disease mechanisms. This multidisciplinary expertise allows SBI to excel in key areas such as cancer, cell signaling, and personalised medicine, driving forward innovative therapeutic strategies. SBI's focus on applying cutting-edge methods to real-world disease challenges positions it as a vital contributor to biomedical research, with strong collaborations spanning academic, clinical, and industry sectors on a global scale.

Founded in 2009 as part of the **Research Ireland** CSET Programme, SBI is based at **University College Dublin**.



University College Dublin
Ireland's Global University



Taighde Éireann
Research Ireland



OUR EXPERTISE

- Integrated biological & computational network biology
- Multi-omics data integration & interpretation
- Digital Twin modeling
- Cancer & inflammation signalling
- Cross-disciplinary training
- STEM and personalised medicine outreach

OUR TRACK RECORD

SINCE 2009

630+

Publications

€90+

Million in Funding
across >223 awards

380+

Researchers & Staff
from >40 nations

20

Partnerships with
Industry

15

Education & Public
Engagement
Projects
(€2.4+ Million)