Epigenetic regulation of cell fate during early mammalian development

Fact Sheet

Project Information

EpiCellLineage

Grant agreement ID: 883798

DOI
10.3030/883798

Funded under
EXCELLENT SCIENCE - European Research Council (ERC)

Total cost
€ 2 351 249,00

EU contribution
€ 2 351 249,00

Coordinated by
THE BABRAHAM INSTITUTE
United Kingdom

Project description

The role of epigenetics in development

Early on during development, three layers of embryonic cells differentiate to give rise to the vertebrate body. The implicated events are driven by changes in gene expression, but the role of the epigenome remains poorly understood. The EU-funded EpiCellLineage project is working under the hypothesis that lineage-specific genes are epigenetically primed at early developmental stages to ensure transcription. Researchers will investigate the underlying molecular mechanisms and impact of impaired epigenetic priming. The project's results will unveil how the epigenetic landscape impacts cell differentiation during development, shedding light on developmental disorders.
Keywords

- Epigenetics
- epigenome
- single cell multi-omics
- gastrulation
- cell fate
- enhancers
- promoters
- bivalency
- transcription
- DNA methylation
- epigenetic editing
- early mammalian development
- chromatin

Programme(s)

H2020-EU.1.1. - EXCELLENT SCIENCE - European Research Council (ERC)

Topic(s)

ERC-2019-ADG - ERC Advanced Grant

Call for proposal

ERC-2019-ADG

See other projects for this call

Funding Scheme

ERC-ADG - Advanced Grant

Coordinator
THE BABRAHAM INSTITUTE

Net EU contribution
€ 2 351 249,00

Address
Babraham hall
CB22 3AT Cambridge
United Kingdom

Region
East of England > East Anglia > Cambridgeshire CC

Links
Contact the organisation
Website
Participation in EU R&I programmes
HORIZON collaboration network

Other funding
€ 0,00

Beneficiaries (1)