

Characterising gene expression patterns is a crucial part of understanding the molecular determinants of development and the role of genes in disease. However, this exciting area suffers from fragmentation of efforts across Europe, from difficulty of sourcing and maintaining suitable collections of material, and in developing expertise in both biological and informatics areas.

Due to the special nature of the human developmental tissue, it is essential that ethical aspects of the research are carefully considered.

DGEMap team aims to evaluate the most effective ways of overcoming challenges faced by the community of scientists involved in the analysis of gene expression in early human development.

DGEMap is arranged into four complementary and multidisciplinary activities

The feasibility study

Aiming at analyzing the users and user needs and defining the structures and processes for the delivery of an efficient service to the scientific community

The lab-based technology study

Aiming at assessing the best available technology for in situ gene expression analysis and the conditions for scaling up cutting-edge technology

The computer-based technology study

Aiming at improving visualisation, mapping and analysis methods and building on Grid-based technology to provide an integrated gene expression database

The ethics study

Aiming at evaluating the current status of international regulations and legislations on the use of human developmental material and generating professional standards

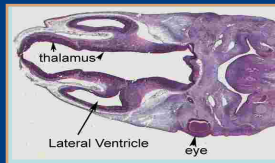
DGEMap will deliver a design for:

- the organisational and collaborative structures
- the ethical framework
- the lab-based technologies
- the informatics technologies,

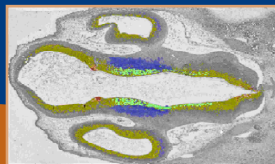
necessary for a new research infrastructure designed by and dedicated to the scientific community

How to study the brain

anatomy

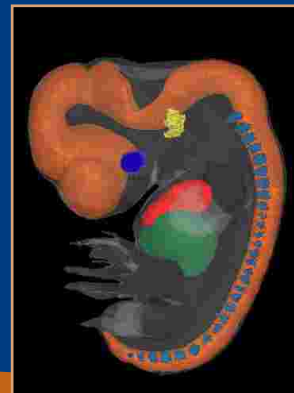


gene expression



3D Models

3-D models



Seeing the brain in new ways



DGEMap is the first ever EC Design Study for a pan-European research infrastructure dedicated to the analysis of gene expression patterns in early human development.

The University of Newcastle upon Tyne was granted the coordination of **DGEMap** by the European Commission under the Sixth Framework Programme.

The project started in April 2005 and will end in July 2008.

The core team of the project consists of 12 people from 7 nationalities. They are biologists, geneticists, computer scientists, software engineers and ethicists.

For further information and to register your interest in **DGEMap** and the proposed research infrastructure, contact the project manager at:

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