



CDB SEMINAR

Speaker: Jeff Christiansen

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Title: “EMAGE - The Edinburgh Mouse Atlas of Gene Expression: A Novel Bioinformatics Resource of Virtual 2D and 3D Gene Expression Patterns during Mouse Embryogenesis”

Date:	Wednesday, March 9
Time:	16:00 - 17:00
Place:	7th floor Conference Room of Building A, CDB

Summary:

EMAGE is a database of spatially mapped gene expression data in the developing mouse embryo that has been developed as part of the Edinburgh Mouse Atlas Project (EMAP).

All EMAGE data is mapped into a standard framework: the EMAP Digital Atlas of Mouse Development. This Atlas consists of a standardised nomenclature for the anatomical structures that are present at every Theiler stage of embryo development and at least one representative 3D digital embryo model for most post-implantation Theiler stages. As the embryo models are 3D objects, it is possible to take virtual sections through these in any plane to reveal internal anatomical detail.

EMAGE expression data is mapped into the EMAP Atlas framework both using text (to the anatomical nomenclature) and spatially (to corresponding regions within the embryo models). Whole mount data imaged by photographing specimens is mapped in 2D as a domain that is projected onto the 'surface' of an EMAP embryo model. Section and OPT data is mapped into the 3D space of the digital EMAP embryo models.

Searching EMAGE data that has been mapped into the standard framework models is performed by text based methods or by spatial based approaches whereby 2D or 3D query domains are defined by the user.

EMAGE is publicly accessible from <http://genex.hgu.mrc.ac.uk/>

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