Plan Overview

A Data Management Plan created using DMPonline

Title: Transmitters in the control of sea urchin embryo cytoskeleton

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Template: DCC Template

Project abstract:

The objective of the project is to obtain data on the involvement of dopaminergic mechanism in the cleavage divisions of P.lividus, including the specific target of the transmitter, its role in the regulation of actin and tubulin cytoskeleton, and corresponding signal cascades.

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Transmitters in the control of sea urchin embryo cytoskeleton

Data Collection

What data will you collect or create?

1. Embryopharmacological data on the influence of D2-antagonists (haloperidol, spiperone etc) on the cleavage divisions: determination of cytostatic effect and photo registration using light microscopy.
2. Data from whole cell patch-clump experiments on the effects of dopaminergic ligands on membrane currents in cleaving embryos.
3. Confocal microscopy of the effects of D2-antagonists on the formation of mitotic spindle during 1st cleavage division.

How will the data be collected or created?

1. Visual and photo recordings of sea urchin embryos' cleavage divisions
2. Electrophysiological records of membrane currents using ClumpFit
3. Confocal images of cleaving sea urchin embryos

Documentation and Metadata

What documentation and metadata will accompany the data?

Files of electrophysiological records and the confocal images

Ethics and Legal Compliance

How will you manage any ethical issues?

The work does not contain any ethical problems

How will you manage copyright and Intellectual Property Rights (IPR) issues?

The owners of data are Drs Yuri Shmukler and Denis Nikishin. There are no restrictions for reuse the data by the third party.

Storage and Backup

How will the data be stored and backed up during the research?

The data will be stored at Marine Data Archive (MDA)

How will you manage access and security?

Question not answered.

Selection and Preservation

Which data are of long-term value and should be retained, shared, and/or preserved?

Question not answered.

What is the long-term preservation plan for the dataset?

Question not answered.

Data Sharing

How will you share the data?

The data will be shared with the host organization - Stazione Zoologica Anton Dohrn, Naples, Italy. For Open access, the data will be available either after publication or in two years after storage

Are any restrictions on data sharing required?

No

Responsibilities and Resources

Who will be responsible for data management?

Dr Yuri Shmukler and Dr Denis Nikishin

What resources will you require to deliver your plan?

Resources after the conditions of ASSEMBLEPlus