
Transmitters in the control of sea urchin embryo cytoskeleton

A Data Management Plan created using DMPonline

Creator: Yuri Shmukler

Affiliation: Other

Funder: ASSEMBLEPlus

Template: DCC Template

Grant number: TCSUEC 8460-IV

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.

Last modified: 16-03-2020

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Data Collection

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-clamp 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.

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

Files of electrophysiological records and the confocal images

Ethics and Legal Compliance

The work does not contain any ethical problems

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

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

Question not answered.

Selection and Preservation

Question not answered.

Question not answered.

Data Sharing

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

No

Responsibilities and Resources

Dr Yuri Shmukler and Dr Denis Nikishin

Resources after the conditions of ASSEMBLEPlus