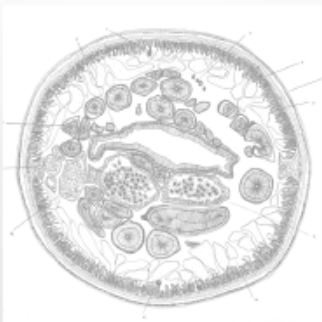
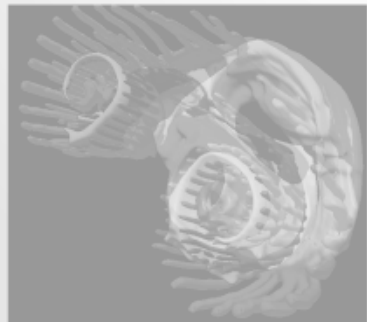
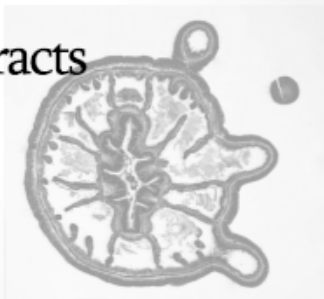
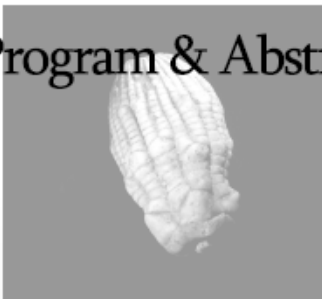


ICIM IV

International Congress
on Invertebrate Morphology

Program & Abstracts



УДК 592
ББК 28.691
Ч-52

Коллектив авторов. Отв. ред. Е.Н. Темерева.

Ч-52 4-й Международный конгресс по морфологии беспозвоночных (4th International Congress on Invertebrate Morphology). – М. : Издательство "Перо", 2017. – 398 с.

ISBN 978-5-906988-32-4

Книга представляет собой сборник тезисов докладов 4-го международного конгресса по морфологии беспозвоночных, проходившего 18-23 Августа 2017 года в Московском государственном университете им. М.В. Ломоносова (Москва, Россия). Материалы докладов распределены по 14 симпозиумам, отражающим наиболее актуальные направления современной зоологической науки. Всего в рамках конгресса заслушано 170 устных и 160 стендовых докладов от участников из 25 стран мира. Более трети всех докладов сделаны молодыми учеными – студентами и аспирантами ведущих российских и зарубежных вузов. Пленарные и приглашенные лекции прочитаны ведущими специалистами по сравнительной анатомии, эмбриологии, палеонтологии, геномики и эволюции беспозвоночных.

УДК 592
ББК 28.691

ISBN 978-5-906988-32-4



© Коллектив авторов, 2017 г.

Издательство «Перо»
109052, Москва, Нижегородская ул., д. 29-33, стр. 15, ком. 536
Тел.: (495) 973-72-28, 665-34-36
Подписано в печать 09.08.2017. Формат 60×90/16.
Печать офсетная. Усл. печ. л. 49,75. Тираж 350 экз. Заказ 528.

BEHAVIOR AND FATE OF MAIN CELL TYPES DURING *HALISARCA DUJARDINII* CELL REAGGREGATION

Andrey I. Lavrov^{1,2}, Fedor V. Bolshakov¹, Igor A. Kosevich¹

¹Lomonosov Moscow State University, Russian Federation

²Koltzov Institute of Developmental Biology, Russian Federation

lavrovai.bio@yandex.ru; fedbolsh@mail.ru; ikosevich@gmail.com

B2 Oral

Sponges – the most ancient group of metazoans. They have unique features of organization which not found in other animals. Impressive plasticity of sponge body is one of such features. The most outstanding manifestation of this plasticity is sponge cell reaggregation. Different multicellular aggregates form during reaggregation ending in the reconstruction of intact sponge. So, it is a unique model system to study the cells potencies and behavior in sponges.

We studied cell reaggregation in demosponge *Halisarca dujardinii*, which cells are able to reconstruct intact sponge organization during this process. Using histological, ultrastructural and immunohistochemical methods we described the fate and some aspects of the behavior of main cell types during different stages of cell reaggregation.

At the beginning of reaggregation, the mass cell differentiation takes place – the most of the cells lose their characteristic features and become indistinguishable from maternal amoebocytes, forming the heterogeneous pool of amoebocytes. Only choanocytes and cells with inclusions can also be found in primary aggregates. Formation of primmorphs (aggregates with exopinacoderm) is accompanied by surface amoebocytes and choanocytes differentiation to the exopinacocytes. Finally, during the reconstruction of intact sponge organization new endopinacocytes, choanocytes and lophocytes differentiate both from the heterogeneous pool of amoebocytes and dedifferentiated choanocytes. Cells with inclusions do not change their initial differentiation during the whole process of reaggregation. The intensity of cell proliferation in intact sponge tissues and during reaggregation was studied using EdU staining.

Financial support by Russian Foundation for Basic Research no 16-04-00084 and the Russian Science Foundation no 17-14-01089 is gratefully acknowledged.