

GERM GRANULES IN ANIMAL OOGENESIS**M. A. Dobrynin^{a, *} and N. E. Eukashvily^a**^a*Institute of Cytology RAS, St. Petersburg, 194064 Russia*^{*}*e-mail: dobrmak1555@mail.ru*

In eukaryotic cells, many macromolecules are organized as membraneless biomolecular condensates. In their formation, the leading role is played by the processes of phase transitions of the “liquid-liquid” and “liquid-solid” type. Such condensates also include unique RNP granules characteristic of germ line cells which are termed germ granules. The review summarizes recent data on the composition of germ granules and their suggested functions. According to these data, germ granules are involved in the determination of germline cells in some animals. Germ granules also take part in the processes of transposons inactivation and sequestration of mRNA and proteins to temporarily decrease their activity.

Keywords: oogenesis, embryogenesis, germ granules, nuage, membraneless biomolecular condensates