

**OXFORD CAMBRIDGE AND RSA EXAMINATIONS
AS GCE**

F211/01

BIOLOGY

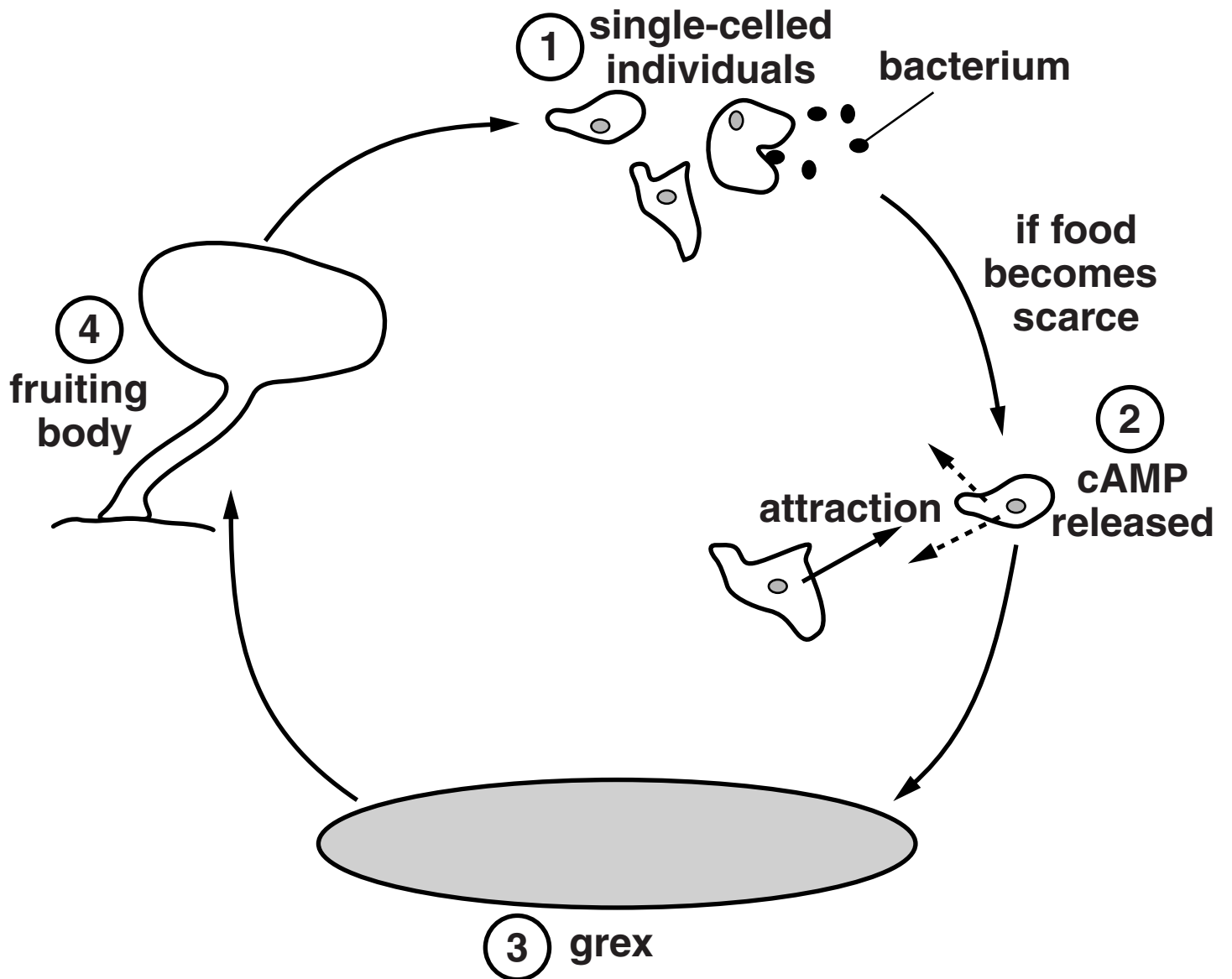
Cells, Exchange and Transport

INSERT for Question 5

WEDNESDAY 21 MAY 2014: Morning

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FIG. 5.1



- ① When plenty of food is available this slime mould exists as single-celled individuals which feed and reproduce asexually. The slime mould cells feed on bacteria. The slime mould cells are attracted to folic acid which has been released by the bacteria.**
- ② When food becomes scarce the slime mould cells release a chemical (cAMP) which attracts other slime mould cells.**
- ③ The slime mould cells then group and stick together to form a multicellular mass called a grex. The grex moves in a coordinated way in search of a more suitable environment. As the grex moves, the cells release the chemical DIF. DIF causes some cells to become stalk cells and others to become spore cells.**
- ④ When the grex reaches suitable conditions, it forms a fruiting body consisting of a stalk and spores. These spores are released and develop into new, individual, slime mould cells.**



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