

Kafr El-Sheikh University Faculty of Aquatic and Fisheries Sciences Winter semester of the academic year 2019/2020



Suggested research topics

Winter semester of the academic year 2019/2020

ريولوجيا وجزيئات الخلية Course name in Arabic:

Course name in English: Molecular and Cell Biology

Professor Dr.: Zizy I. Elbialy

Level: Two

Department: Fish Processing and Biotechnology



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No.	Research title	Research items
1	How can we study the cell and cell structure	1- Types of cells 2- Methods of studying cell structure 3- Applications
2	Nucleus and nuclear pores	1- Structure of nucleus 2- Function of nuclear pores 3- Function of the nucleus
3	Mitochondria	1- Structure of mitochondria 2- Function of mitochondria 3- Fate of old mitochondria
4	Bacterial plasmids and bacterial gene transfer	1- Structure and function of plasmids 2- Role of plasmids in gene transfer 3- Role of plasmid in drug resistance
5	Lysozymes	1- Structure of lysozyme 2- Function of lysozyme 3- Mechanism of action
6	Cytoskeleton in eukaryotes	1- Types of cytoskeleton 2- Function of cytoskeleton 3- Mechanism of intra-cellular transport of molecules
7	Plasma membrane and material transfer	1- structure of plasma membrane 2- Function of plasma membrane 3- Role in material transport
8	Acidity of the stomach lumen	1- Causes of acidity of the stomach 2- How stomach lining protect itself from acidity 3- Importance of stomach acidity
9	Chemical synapse	1- Definition 2- Mode of action 3- Role of nerve cell membrane in impulse transmission (axon)
10	Cell adhesion molecules (CAMs)	1- Definition 2- Source 3- Importance in animal tissue

Course Instructor:

Name: Dr. Zizy I. Elbialy

Signature: Dr. Zizy I. Elbialy