



DEPARTMENT OF ZOOLOGY

presents

ZOOLOGICA

2019-20

Volume-2

**RAMA DEVI WOMEN'S UNIVERSITY,
VIDYA VIHAR, BHUBANESWAR, ODISHA**

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DESK**
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FROM HOD'S DESK

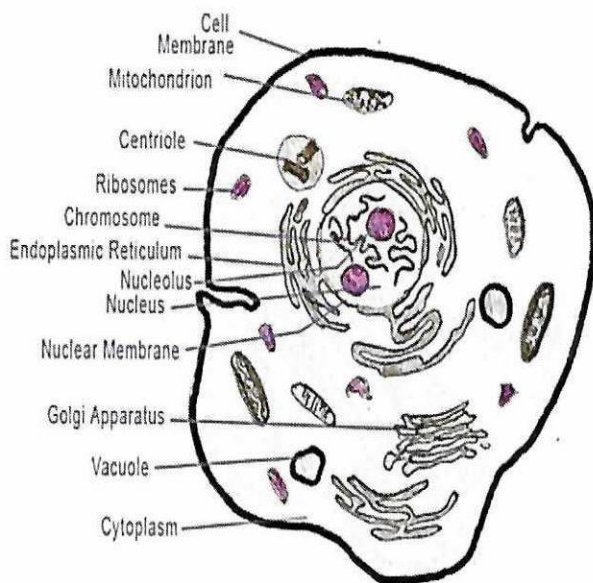
It is very gratifying to announce the release of the second volume of our departmental newsletter “ZOOLOGICA”. This newsletter encompasses the creative talents and achievements of students and the activities of Zoology department. I hope that this newsletter will boost the spirit of the faculty members, nonteaching staff and students of the department to strive hard for the betterment of our department. Kudos to all the staff members and students of zoology department for their contributions in bringing out this newsletter.

Sri Prakash Chandra Parichha
HOD, Zoology

CREATIVE CORNER

CELL BIOLOGY

Living organisms are made up of basic microscopic units called cells. Cells are prokaryotic and eukaryotic, wherein the latter is more complex and contains nuclear material. Plants and animals are made up of cells and though most of the cell organelles are the same, they do have their differences. This article provides information about the different cell organelles present in the animal cell, along with the diagram and functions. The labeled animal cell diagram will help understand the parts of the animal cell.



ANIMAL CELL DIAGRAM

Sketch by Abhishake Sharma

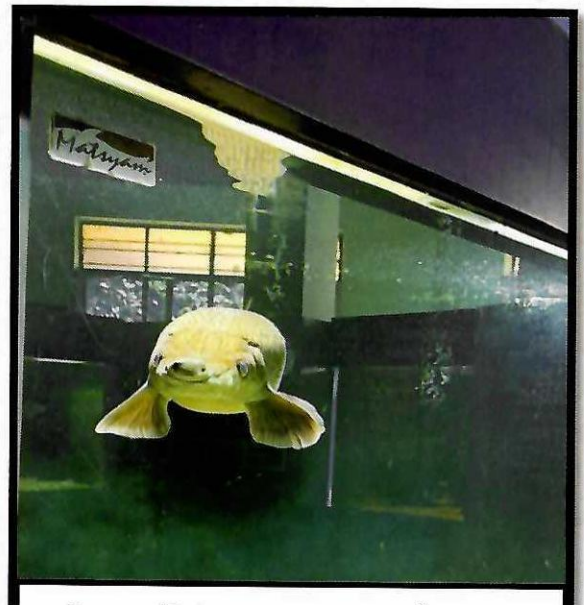
Cell Membrane

Cell membrane or plasma membrane is a membrane common to both plant and animal cells. As observed in the labeled animal cell diagram, the cell membrane forms the confining factor of the cell, that is it envelops the cell constituents together and gives the cell its shape, form and existence. Cell membrane is made up of lipids and proteins and forms a barrier between the extracellular liquid bathing all cells on the exterior and the cell organelles floating in the cell's cytoplasm. This membrane is semi-permeable, thus, it allows only selected substances to pass through it into the cell's interior.

Cytoplasm

Cytoplasm or Cytosol is nothing but the jelly-like substance filling the cell. To be more precise, it is that fluid material present outside the nucleus and within the cell membrane, into which

Ila Mishra, UG 1st year



Sonali Jena, UG 2nd year

Small cell cancer of the lung (SCCL), often called oat cell cancer, is one of the most common and also one of the most deadly cancers, killing nearly all patients within 2 years. It also is something of a medical curiosity because the cancer cells secrete a variety of hormones including calcitonin, bombesin, arginine vasopressin, and ACTH. In culture, the cells secrete up to 18 different hormones.

Because of this hormone secretion, many patients get paraneoplastic syndromes, which are adverse side effects of hormone secretion. For example, some patients develop Cushing's syndrome from excess production of ACTH by the SCCL cells—they get high blood pressure, wasted muscles, florid faces, and hirsutism. Many of the symptoms of the cancers—such as depression, muscle weakness, and loss of appetite—may be caused by the hormones that the tumors produce.

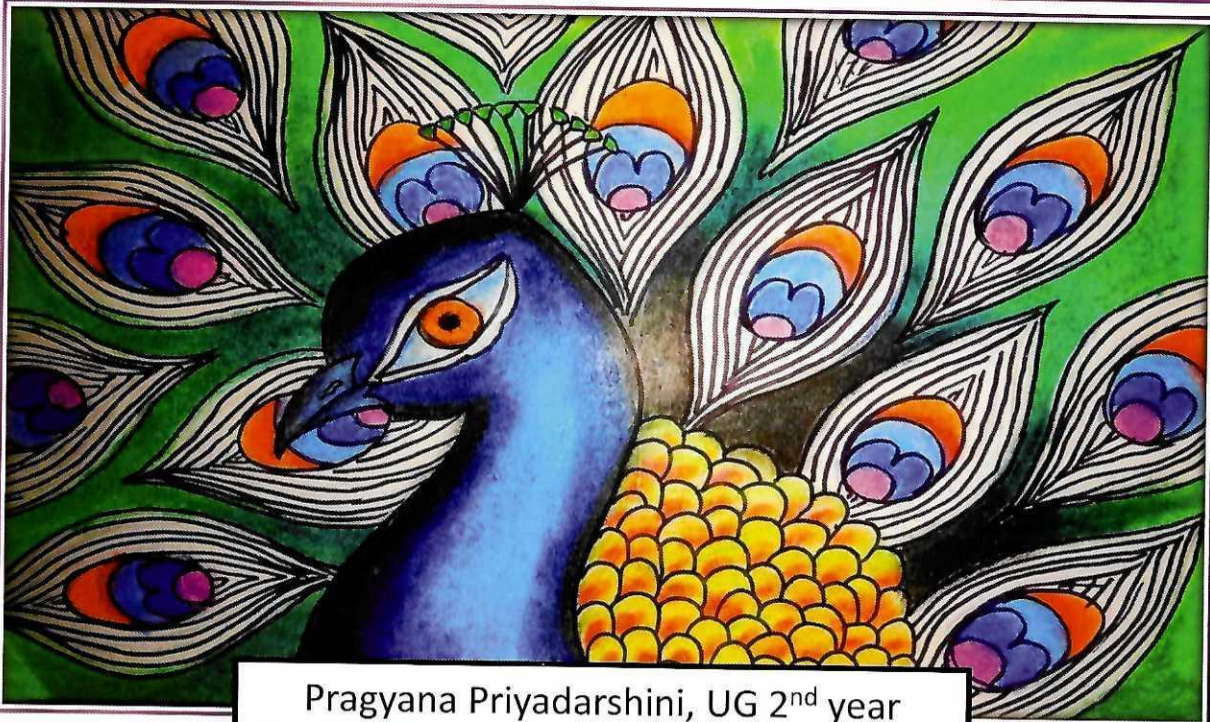
Anshita Panda, UG 2nd year



Manorama Nayak, UG 3rd year



Sonali Sahu, UG 3rd year



Pragyana Priyadarshini, UG 2nd year

MEMORABLE MOMENTS



Farewell-2019

Freshers-2019



First prize in Drama received by Pragnya Priyadarsini in annual literacy and cultural meet 2019-20



Final year Students delivering seminar talk



Seminar talk by Dr. Saroj Kumar Swain, Principal scientist, CIFA



Teachers' Day Celebration



Demonstration of foldable paper microscope by a faculty from Zoology Dept. College of Basic science



Sauranjeeta Majhi, Receiving Best graduate certificate, Convocation-2019



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