



“IDENTICAL TWINS: SAME GENES, DIFFERENT STORIES”

What are Identical Twins?

Identical twins develop when one fertilized egg divides into two separate embryos at an early stage of development. Because both embryos originate from the same zygote, they have almost the same genetic makeup and are always of the same sex.

Why Are They Not Completely Identical?

Even though identical twins share the same DNA, they are not exactly the same in every aspect. Differences can occur due to environmental conditions, lifestyle, and random biological changes during growth. Moreover, variations in gene activity, known as epigenetic changes, can influence traits such as appearance, behavior, and risk of developing certain diseases.

Unique Features of Identical Twins

Identical twins usually look very much alike, but small differences still exist. For example, their fingerprints are not the same because they develop under slightly different conditions in the womb. They may also differ slightly in height, weight, or other physical features. In uncommon cases, they may show “mirror-image” traits, such as using opposite hands or having reversed physical characteristics.

Reference:

Strachan, T., & Read, A. (2018). *Human Molecular Genetics* (5th ed.). Garland Science.

By Asst. Prof. Ms. Regina V. Fernandes

“Start by doing what’s necessary, then do what’s possible, and suddenly you are doing impossible”.

-Francis of Assisi

PGDCGMLT BATCH 2025-2026 SEMESTER I RESULTS



Ms. Lincia Carvalho
Secured 82.6%



Ms. Merryl Pinto
Secured 80.4%

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STUDENT PARTICIPATION



Ms. Tishea Fernandes , PGDCG&MLT student , participated in Inter Collegiate championship (Goa University) and secured Gold under 69kg category, held at Jubilee Hall Goa University on 15th January 2026. She also secured 1st runners up (Team championship)

FACULTY PARTICIPATION

- Ms. Regina V Fernandes, Asst. Prof, PGDCGMLT participated in workshop on Revision of Teaching, Learning, and Evaluation (TLE) Handbook Organized by TLETC, Parvatibai Chowgule College on 27th January 2026.
- Ms. Regina V Fernandes, Asst. Prof, PGDCGMLT participated in OBE workshop organized by Parvatibai Chowgule College in association with Directorate of Higher Education on 05th February 2026.

DID YOU KNOW THESE ABOUT DNA?

- 1) Every human cell contains about 2 meters of DNA tightly packed into the nucleus.
- 2) Your DNA is 99.9% the same as DNA from any other human beings.. i.e. your friends are genetically as similar to you like your fourth cousins.
- 3) Genes make up only **~2%** of the human genome, yet control most biological functions.
- 4) Genetic mutations can be harmful, neutral, or beneficial, driving evolution.
- 5) Identical twins have the same DNA, yet differences arise due to gene expression and environment.
- 6) Each gene provides instructions to make specific proteins essential for body functions.
- 7) Not all DNA is active at once—genes are turned “on” or “off” as needed.
- 8) Mitochondrial DNA is inherited only from the mother.



https://cdn.rcsb.org/images/structures/1d28_model-1.jpeg

EXPERT LECTURES IN LABORATORY SAFETY ESSENTIALS

Session 1: ON “LABORATORY FIRST AID”

The session was conducted on 12th February 2026, by Dr. Poonam Prabhu Desai focusing on the importance of immediate response to laboratory emergencies. The session highlighted the management of needle stick injuries, including proper first aid measures and reporting procedures. Various laboratory accidents such as burns, cuts, and chemical exposure were also discussed, along with preventive strategies. The lecture emphasized the use of personal protective equipment and safe laboratory practices to minimize risks and ensure a safe working environment.

The session also created awareness about timely reporting of incidents and adherence to safety protocols. Overall, it enhanced the participants' preparedness to handle emergencies effectively in the



Session 2: ON “BIOMEDICAL WASTE DISPOSAL”

Dr. Poonam Prabhu Desai conducted a lecture on 12th February 2026 on Biomedical Waste Management, highlighting the importance of proper segregation and disposal of medical waste in healthcare and laboratory settings. The session covered different categories of biomedical waste and emphasized color-coded disposal methods as per guidelines.

She also explained the procedure for associating with authorized biomedical waste collection agencies responsible for the safe transport and disposal of segregated waste. The risks associated with improper waste handling, including infection and environmental hazards, were discussed, along with the need for strict adherence to safety protocols.

Overall, the lecture enhanced awareness among participants regarding responsible waste management and safe laboratory practices.



PGDCGMLT WORKSHOP- "PCR Techniques in Molecular Diagnosis "

On February 06th, 2026, the PGDCGMLT, in association with Sapphire Diagnostics Laboratory, Navelim Goa, organized a workshop on "PCR Techniques in Molecular Diagnosis." The workshop was led by Dr. Sunayana Shet.

As part of the practical exposure, sputum sample processing for the diagnosis of tuberculosis was demonstrated,



molecular diagnostics.

enabling students to understand the application of

PCR techniques in the detection of infectious diseases.

The workshop significantly enhanced the students' practical skills and strengthened their understanding of the role of PCR in modern



PGDCGMLT FIELD VISIT- " HISTOPATHOLOGY SECTION: VICTOR HOSPITAL."

PGDCG&MLT organized a field visit for the PGDCG&MLT students on February 26th, 2026. A total of nine students participated in the visit, accompanied by the faculty member Ms. Regina V. Fernandes. The purpose of the field visit was to provide students with exposure to the functioning of a Histopathology Department. During the visit, students observed tissue specimens and learned about various procedures such as tissue processing, embedding, and microtomy.



Editors: Asst. Prof. Ms. Regina V. Fernandes,
Course-Co-ordinator, PGDCGMLT

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Email your feedback and comments to: rvf003@chowgules.ac.in