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class : 12th

Unit : 2 (Genetics and Evolution)

Chapter : Mendelian Inheritance

Topic : Mendelian Genetics

Lecture No. - 24

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Mendelian Genetics :

- Gregor Johann Mendel (1822 - 1884) known as Father of Genetics was an Austrian monk.
- In 1856, he published the result of hybridization experiments titled 'Experiments on Plant Hybrids' in a journal "The Proceeding of the Brunn society of natural history" and postulated the principles of inheritance which are popularly known as Mendel's law.
- But his work was largely ignored by scientists at that time.
- In 1900, the work of Mendel was independently rediscovered by three biologists - Hugo de Vries of Holland, Carl Correns of Germany and Eric Tschermak of Austria.
- Mendel did a statistical study.
- He discovered that individual traits are inherited as discrete factors which retain

their physical identity in a hybrid.

- Later these factors came to be known as genes.
- This term 'gene' was coined by Johannsen in 1909.
- A gene is defined as unit of heredity that may influence the outcome of an organism's traits.

Mendel's Experiment:

Mendel chose the garden pea, Pisum sativum, for his experiments, since it had the following advantage:

- (i) Well defined discrete characters
- (ii) Bixexual flowers
- (iii) Predominantly self fertilization
- (iv) Easy hybridization
- (v) Easy to cultivate and relatively short life cycle.

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