



# Popular Science Lecture

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## Indian Women Scientist' Association

Vashi, Navi Mumbai

Supported by BRNS-DAE

In association with

Departments of Botany and Zoology

**St. Teresa's College (Autonomous), Ernakulam**

Park Avenue, Marine Drive, Ernakulam, Kochi-682011.

Lecture on:

### *From Genes to Gene Editing: Developments in Biosciences*

By

**Dr. Susan Eapen**

Former Senior Scientist,

Bhabha Atomic Research Centre, Mumbai



Date: 19/09/2023

Time: 2:30 PM

Venue : AV Room, Science Block

ALL ARE CORDIALLY INVITED TO ATTEND

# Abstract

Based on his experiments on garden pea in the middle of 19th century, Gregor Mendel found that traits were inherited as discrete units called factors and he laid the foundations of genetics. The word 'Gene' was coined later by Wilhelm Johanssen. A major landmark was attained in 1953 when James Watson and Francis Crick devised the double helix model of DNA – the hereditary material. Various milestones like development of restriction enzymes, recombinant DNA techniques, cloning of genes, genetic engineering of organisms, stem cell therapy, genome sequencing, 3-D printing of organoids/ organs, lab-grown meat etc will be dealt with in the talk. Precise editing of genome using a variety of techniques, specially using CRISPR-CAS 9, will be presented. Applications of genome editing for treatment of diseases and ethical issues of genome editing will also be discussed.