

molecule. Knowledge of DNA sequences has become indispensable for basic biological research, and in numerous applied fields such as diagnostic, biotechnology, forensic biology. The wealth of the genomics information now available will greatly assist the doctors in early diagnosis of hereditary diseases like Parkinson disease, Huntington etc. Genome sequencing allows us to identify the specific causes of the disorder.

FAST BREEDER REACTOR– The term ‘fast breeder’ refers to the types of configurations which produce more fissionable fuel than they use i.e. more fuel is produced than is spent. In these types of reactors instead of Water, Liquid Sodium is used as moderator.

FORTIFIED FOOD–It came into news after various state government announced to supply it under mid day meal scheme in schools. Keeping in view of the undernourishment of the children and lack of proper nutrients in the food, it is planned that micronutrients will be artificially added to the normal food like poha, idli given to students. One important challenge is that there are certain fat soluble vitamins like Vitamin A, D and E which if given in excess, body has no mechanism to drain them.

GENE– A gene is a molecular unit of heredity of a living organism. It is a name given to some stretches of DNA and RNA that carry information about certain functions. Genes hold the information to build and maintain an organism's cells and pass genetic traits to offspring.

GENE PATENTING – It involves discovery and then patenting of the discovered genes. In Myriad Genetics case, US Federal court held that since genes exist naturally, they or their findings cannot be patented.

GENETIC TESTING – It involves the direct examination of the DNA molecule itself It is used for carrier screening (disease carrying genes), forensic testing to confirm identities, pre-natal diagnostic and so on.

GENE THERAPY – It involves altering DNA by encoding it and then planting it back. If it is planted in somatic cells, it is called somatic gene therapy and the alterations are not inherited. If it is planted in germ cells, it is called germ gene therapy and traits are inherited. Preventive gene therapy means altering the DNA before a disease manifests itself.

GIS – Geographic Information System– In the simplest terms, GIS is the merging of cartography, statistical analysis, and database technology. A geographic information system, geographical information science, or geospatial information studies is a system designed to capture, store, manipulate, analyze, manage, and present all types of geographically referenced data. GIS technology can be used for – earth surface-based scientific investigations; resource management; reference and projections of a geospatial nature, both artificial and natural; archaeology; environmental impact-assessment; infrastructure assessment and development; urban planning and regional planning; cartography, for a thematic and/or time-based purpose; criminology; geospatial intelligence In India the technology has been successfully used in improving the bus service efficiency in Ahmadabad, Bhopal, Indore. NDPL has used in addressing the power distribution challenges in Delhi.

GOLDILOCKS ZONE – it is the zone/orbit around a star which has habitable conditions with temperature neither too high nor too low, so that liquid water may be present at surface.