Molecular Eugenics Services Section Home

History

The concept of eugenics dates back to the late 19th century, with Sir Francis Galton often credited as its founder. Galton proposed that selective breeding could lead to the enhancement of human traits and abilities. Early eugenics efforts included forced sterilization programs and restrictive immigration policies aimed at preventing the reproduction of individuals deemed undesirable. These approaches were widely criticized and have been condemned for their ethical implications.

Evolution

Advancements in genetic research and technology have transformed eugenics from a theoretical concept to a tangible possibility. The emergence of CRISPR-Cas9, a precise and efficient gene-editing tool, opened doors to targeted genetic modifications. While initially focused on curing genetic diseases, this technology also raised ethical questions about its potential misuse for enhancing traits.

Industrial Applications

1. Disease Prevention
Genetic modifications can help eradicate hereditary diseases like cystic fibrosis and sickle cell anemia.
2.

Livestock Improvement

Genetic editing can lead to healthier and more productive livestock.
4.

Drug Development

Genetically modified organisms can be employed to produce complex drugs like insulin.
6.

Biofuel Production

Algae can be engineered to produce biofuels efficiently.