## Science & Innovation Lab

## Council of Scientific and Industrial Research

CSIR is one of India's largest and most prominent research organizations, with over 40 institutes across the country, dedicated to advancing knowledge and innovation in various fields. Its mission is to contribute to India's economic, industrial, and social development through cutting-edge research and development (R&D).

## **Key Areas of Focus**

- Health & Pharmaceuticals: CSIR is crucial in developing affordable medicines and vaccines for diseases like tuberculosis and malaria. Notable breakthroughs include the non-steroidal family planning pill, Saheli, and the herbal asthma pill, Asmon.
- Energy & Environment: Focused on renewable energy (solar, wind, bioenergy) and sustainable environmental practices, CSIR works to enhance energy efficiency and combat climate change.
- Aerospace & Defense: In collaboration with the Indian defense sector, CSIR contributes to air defense systems, radar technology, and aerospace materials.
- Agriculture & Food Technology: CSIR's agricultural research aims to increase crop yields, improve soil health, and develop sustainable farming practices, while also advancing food processing technologies.
- Water Resources & Climate Change:
   CSIR addresses critical issues like water conservation, climate change adaptation, and disaster management through innovative solutions.

## **Major Achievements**

- Developed India's first synthetic drug in 1950.
- Invented Swaraj, India's first indigenous tractor, in 1967.
- Pioneered the first transgenic Drosophila model for cancer drug screening.
- Developed SARAS, India's first indigenous 14-seater aircraft.

**Technology Transfer & Innovation:** CSIR collaborates with industries to translate research into commercial products. It supports the startup ecosystem, driving innovation and entrepreneurship.

**Education & Training:** CSIR offers academic programs, fellowships, and research opportunities to promote science education and inspire future innovators.

**Shanti Swarup Bhatnagar Prize:** Since 1958, CSIR has awarded the prestigious Shanti Swarup Bhatnagar Prize to Scientists recognizing their outstanding contributions in S&T.

**National & Global Impact:** CSIR's work has significantly impacted India's economic growth, especially in healthcare, energy, and manufacturing. It collaborates globally, contributing to scientific advancements worldwide.

CSIR continues to lead in scientific and industrial innovation, shaping India's future in science and technology. It offers high school students exciting opportunities in research and innovation, fostering growth in science and technology.

website: www.csir.res.in