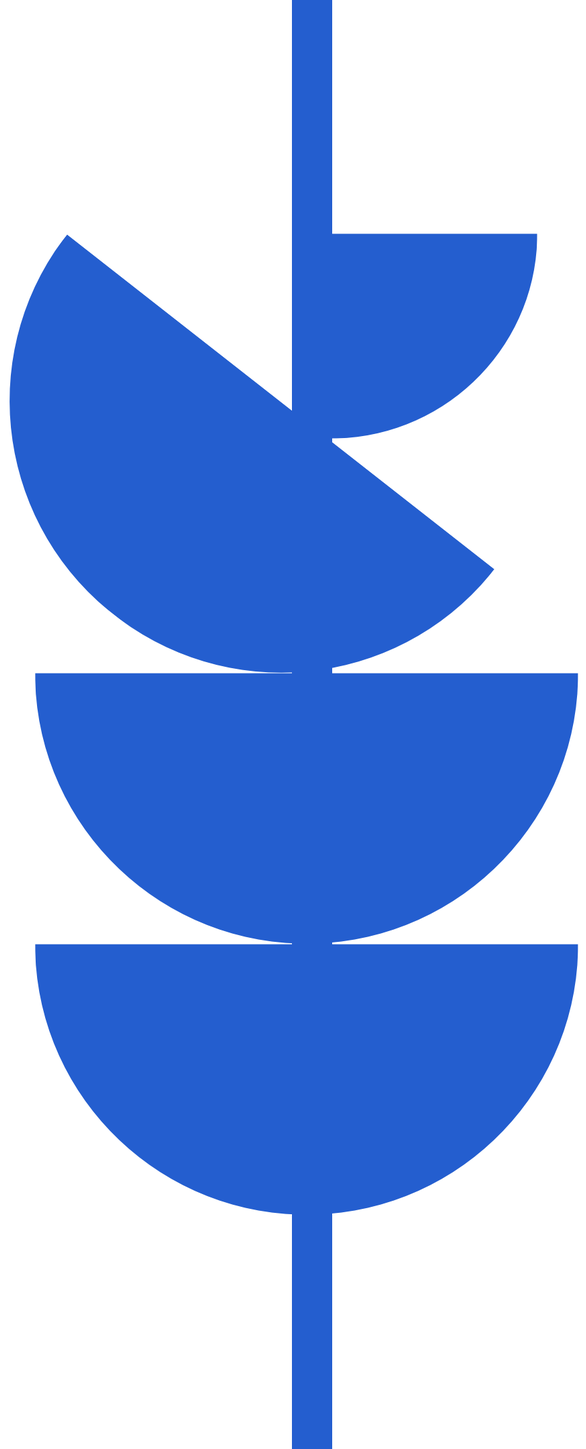
LectureNo. 5:Greens technologies Vmedical

researchAnddevelopments



Introduction Vgreen technologiesVmedic ine



Definition of green technologies: innovations that minimize harm to the environment.

The role of green technologies in reducing carbon footprint and conserving resources.

Examples of use in medicine.

Spheres applications green technologies Vmedicine

Laboratory tests and diagnostics.

Production of medicines.

Clinical trials and data processing.

Disposal of medical waste and materials.

Eco-friendlylaboratories



Energy-saving technologies: using solar and wind energy to power laboratories.

Efficient equipment: low-energy devices and sensor lighting.

Safe disposal of chemical waste: examples of treatment systems.

Sustainable production pharmaceutical drugs



Development of environmentally friendly chemical reagents and synthesis methods.

Use of biodegradable packaging and reduced use of plastic.

Examples of companies implementing sustainable practices (e.g. Novartis and Johnson & Johnson).

Green chemistry V production drugs



Minimization of hazardous waste and pollutants.

Use of environmentally friendly solvents and materials.

Examples of biodegradable chemicals and resource conservation.

Greens clinical research

Optimizing transportation and logistics to reduce emissions.

Virtual research: reducing resource costs through online data collection and telemedicine.

Examples of the application of green approaches in clinical trials.

Energy efficient medical equipment



Low power consumption and self-charging devices.

Examples: ultrasound machines, tomographs, X-ray equipment with energy-saving functions.

Use cases: Siemens has developed an MRI machine with reduced energy consumption.

Biomaterials Andstable medical products



Application of biodegradable polymers for implants and medical devices.

Sustainable materials that reduce plastic and chemical consumption.

Example: companies developing prosthetics made from environmentally friendly materials.

Recycling medical waste



Systems for safe recycling and reuse of instruments.

Biodisinfection and decontamination of materials before disposal.

Example: recycling programs for disposable masks and gloves in some clinics.

Digitalization dataAnddecrease paper trace

Transition to electronic documents to reduce paper waste.

Examples: use of cloud data storage systems and electronic medical records.

Successful projects,reducing usage papers.

Bioengineering Andgreen technologies



Creation of biodegradable materials for implants and bioprostheses.

Sustainable bioengineering processes that reduce resource consumption.

Example: research into creating tissues and organs from biodegradable materials.

Examples successful green researchAnddevelopments



Harvard Lab: Uses solar panels and energy-efficient appliances.

Philips: Manufacturing MRI machines with optimized energy consumption.

GE Healthcare: Devices using biodegradable materials and recyclable components.

Economic Andenvironmenta l benefits



Reducing energy and raw material costs.

Improving the company's environmental image.

Attracting investment through sustainable solutions.

Conclusion

Greens technologies—This future medicineAndfoundation For sustainable healthcare.

Decrease loads on nature, preservation resourcesAndimprovement health.