



# **GLOBALCERT PHARMA STUDY**



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# PHARMA COMPANY AND ITS FUNCTIONING

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Pharmaceutical businesses spend a significant amount of money on research and development of pharmaceuticals and therapies for patients. Patients and healthcare providers (doctors, nurses, hospitals, nursing homes, clinics, and so on) rely on these corporations for disease treatment. These businesses research ailments, conduct research, and develop novel treatments and medicines to treat them. These corporations spend a lot of money on drug development and marketing. Pharmaceutical businesses need medical data and patient reports in order to research and develop new treatments. This is made easier now that medical records have gone digitized and are being stored using blockchain-based technologies after encryption.

Pharmaceutical companies also confront difficulties when it comes to the selling and acquisition of pharmaceuticals. It becomes difficult to trace the legitimacy or origin of medical medications when they pass via multiple merchants. Drugs can be tracked in real time throughout the supply chain thanks to blockchain-based apps. Other characteristics, such as the temperature of the medications during delivery, can be tracked using other technologies such as the Internet of Things.

## PRODUCTION OF DRUGS

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### **Drugs developed in the pharma industry:**

1. Antipyretics: reducing fever (pyrexia/pyresis)
2. Analgesics: reducing pain (painkillers)
3. Antimalarial drugs: treating malaria
4. Antibiotics: inhibiting germ growth
5. Antiseptics: prevention of germ growth near burns, cuts and wounds
6. Mood stabilizers: lithium and valpromide
7. Hormone replacements: Premarin
8. Oral contraceptives: Enovid, "biphasic" pill, and "triphasic" pill
9. Stimulants: methylphenidate, amphetamine
10. Tranquilizers: meprobamate, chlorpromazine, reserpine, chlordiazepoxide, diazepam, and alprazolam
11. Statins: lovastatin, pravastatin, and simvastatin

# DRUG DEVELOPMENT LIFE CYCLE

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**STEP-1:** Discovery and Development

**STEP-2:** Preclinical Research

**STEP-3:** Clinical Research

**STEP-4:** FDA Review

**STEP-5:** FDA Post-Market Safety Monitoring

## DRUG APPROVAL PROCESS

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**1** Discovery And Development

**2** Preclinical Research

**3** Clinical Research

**4** FDA Review

**5** Reliable Pharmaceutical Development

**Approval bodies in India: FDA**

## FACTORS AFFECTING THIS INDUSTRY

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1. Patient Empowerment
2. Increase in Biosimilars
3. Precision Medication
4. 3-D Printed Drugs
5. Digital Healthcare
6. Regulatory Frameworks
7. Pricing Pressure
8. Growing Healthcare Spend
9. Aging Population
10. Growing Obesity Rates
11. Health Trend
12. Growing Biotechnology Industry
13. Direct Advertising
14. Counterfeit Drugs

# LATEST TRENDS

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1. Artificial Intelligence
2. Big Data & Analytics
3. Flexible Production
4. Precision Medicine
5. Additive Manufacturing
6. Blockchain
7. Extended Reality
8. Real World Data
9. Digital Therapeutics
10. Curative Therapies