





Development Strategy for the production of Novel Drugs

Chandrashekar Ranga
Joint Drugs Controller (India)
CDSCO, Govt. of India

Novel Drugs



- What are Novel Drugs?
- What is the need of having a strategy for development of novel drugs?
- Unknown mechanism of action.
- Lack of appropriate animal models.
- Long clinical development timelines.
- Safety issues observed in clinical Development.
- Lack of appropriate regulatory pathways and guidance documents.
- High cost of development.
- Lack of government support.
- Inadequate collaboration between Industry, academia & govt.

Strategies to tackle challenges



➤ Alternative Solutions to animal testing

Organ on chip,

Computational and mathematical models etc.

- ➤ In silico drug design
- > AI Tools
- Identification of molecular targets
- > Well defined regulatory pathway for drug development
- Novel clinical development methodologies

Adaptive clinical trial design,

Umbrella trials, basket trials & platform trials etc.

Strategies to tackle challenges



- Multi disciplinary expert collaboration
- Robust models of industry, academia and government collaboration
- Novel excipient/adjuvant development
- Novel drug delivery systems
- Repurposing of drugs
- Development of CRAMS Services

CONCLUSION



- Drug development is becoming increasingly challenging.
- Robust Industry, academia & govt collaboration.
- Multi disciplinary expert involvement from the conceptual stage.
- Well defined regulatory pathway.
- Novel clinical development pathways.
- Totality of evidence.
- Fast track or expedient review.









Thanks









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