

# Pharmaceutical Industry in 21<sup>st</sup> Century; Challenges and Threats.

## Role of Research Institutions

# Global Pharmaceutical Companies

## Problems being faced and how being addressed

# Global Pharma Industries

- Decline in In-house R&D
- Patent Expiration of Block busters
- Competition in Generics
- High Cost to develop and utilise scientific knowledge to derive new drugs
- Mergers and Acquisition: Created Substantial management challenges and Organizational complexities
- Purchase and supply management
- Outsourcing and Off-shoring
- Contract Manufacturing and R&D

**Problem, Threats and Challenges  
for Global Pharmaceutical  
Companies spell opportunities for  
our Industry.**

# Pakistan Pharmaceutical Industry

Current growth rate	19-20%
Market Size	around 2 billion US Dollar
Global rank	Volume wise – in Top ten Value wise – 50
Employ	1/2 Million people directly or indirectly

Great potential for Export.

Meet more than 80% local demand  
of pharmaceutical products.

# Challenges for growth and Development

- Research and Development
- Threats from Cheap imports
- Need Change in Industry Focus from import substitution to Export oriented
- Local Active Pharmaceutical Ingredient 90% demand being imported
- Bio-availability and bio-equivalence

# Needs to be done:

- Synergise the strength of Pakistan Pharmaceutical Industry and Publicly funded R&D institution
- Create an enabling infrastructure and linkage to facilitate Pharma Industry to improve process technique
- Stimulate skill development of Human Resource in Pharmaceutical R&D
- Enhance nation's self-reliance in drugs and pharmaceuticals, especially in areas of national health requirements
- Provide technical support to pharma companies for export

Setting up a centre for  
Pharmaceutical development and a  
WHO accredited Laboratory will  
provide great support to the  
Industry to meet the challenges



- Product R&D
- Development of New Dosage Forms
- Standardization of formulation, Process, Testing methods etc.
- Calibration and Validation
- Improvement in API manufacturing process
- Bio-availability and Bio-equivalence studies
- Clinical Trial on commercial scale etc.