



Results Q2-FY23

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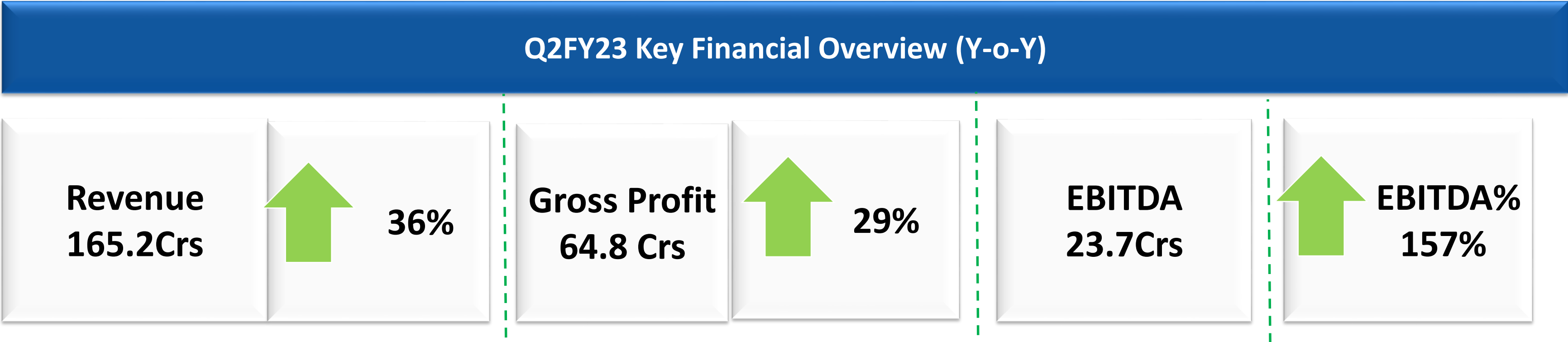
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Current Results





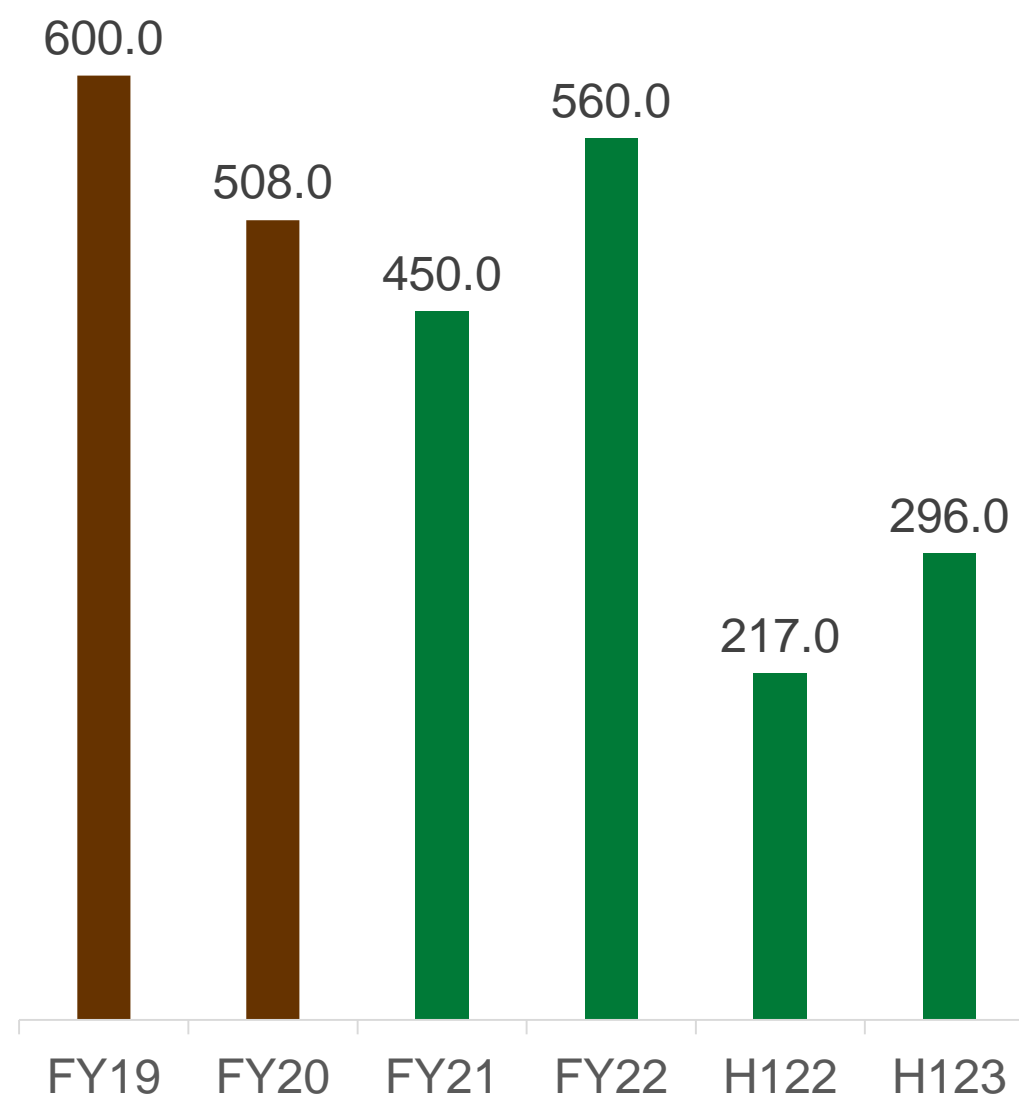
Progress So far



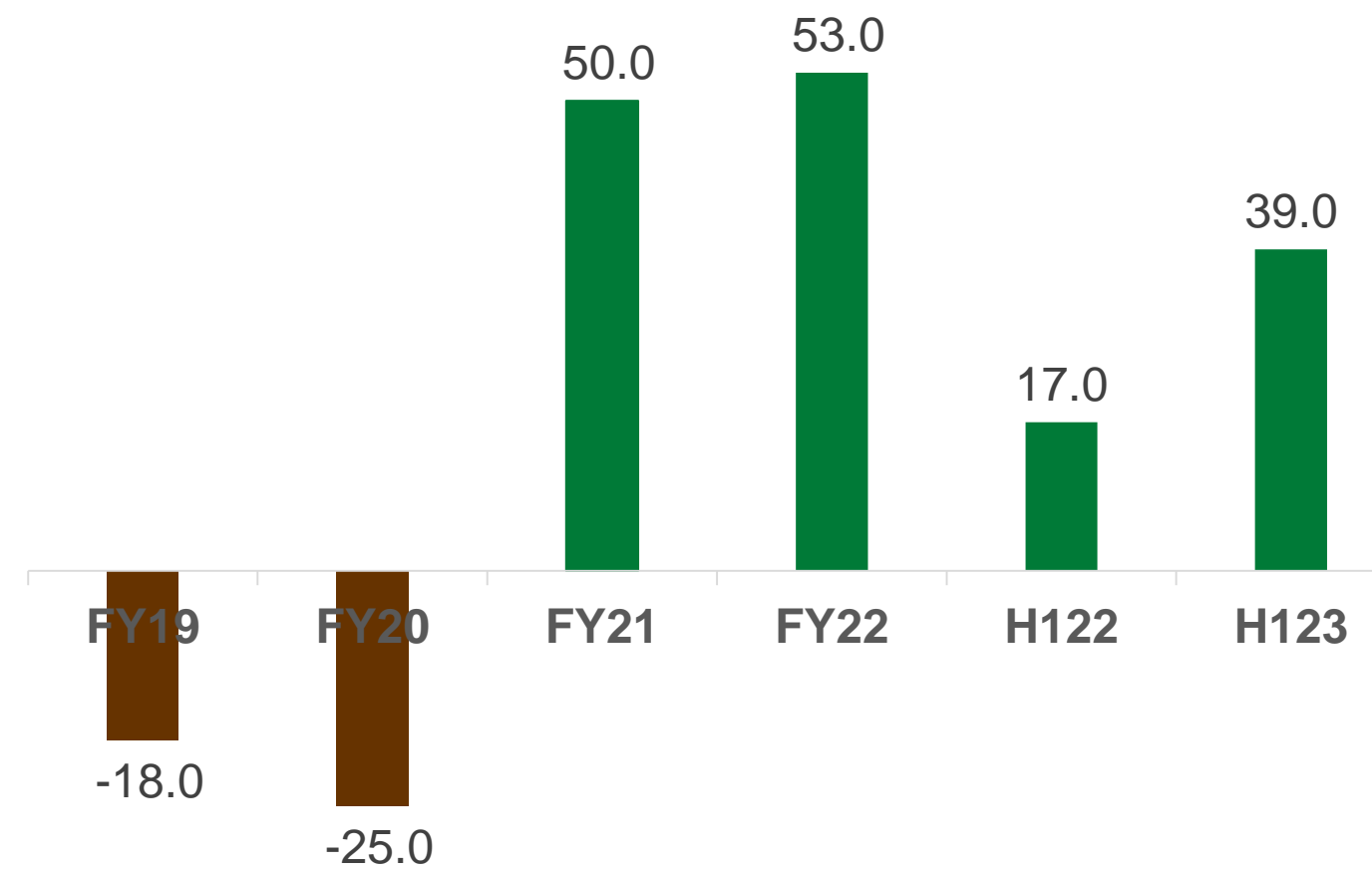
Progress of Turnaround

■ Before takeover
■ After takeover

Revenues



EBITDA



Company overview

1

PIONEER IN CEPHALOSPORIN ANTIBIOTICS

R&D Focused, Inventor of
Enmetazobactam (Ph.-3 Trials done in US
& EU)

Acquired by Dhanuka Group through CIRP
Process on 1st April 2020

2

ABOUT DHANUKA GROUP

~ 2500 Crore diversified group. Interests in
Crop Care and Pharma
Dhanuka Laboratories is the Pharma arm.
>20 years in Antibiotics space

3

INTEGRATED CEPHALOSPORIN API COMPANY SPREAD OVER 60 ACRES

Worldwide approvals from USFDA, EU,
ANVISA, PMDA

Widest Portfolio of > 25 products across
Oral and Sterile Cephalosporins

4

PROFESSIONAL & EXPERIENCED BOARD WITH STRONG MANAGEMENT TEAM

Over 200 years experience in the board.
Over 1000 strong team, with Managers
having 15 years experience at Orchid.

5

STRONG R&D CAPABILITIES

Capability to file Para IV applications with
USFDA with 8 FTF till date

More than 10 process patents and 13
product patents

6

GLOBAL PRESENCE WITH A WIDE CUSTOMER BASE

Present in more than 60 Countries

More than 200 Customers across US,
Europe and Emerging Markets

7

FOCUS ON ESG

Highest Standards of Air – Water Emission
Control – ZLD – 70% Recycle
Community development programs for
villages around the company

Background and Pedigree

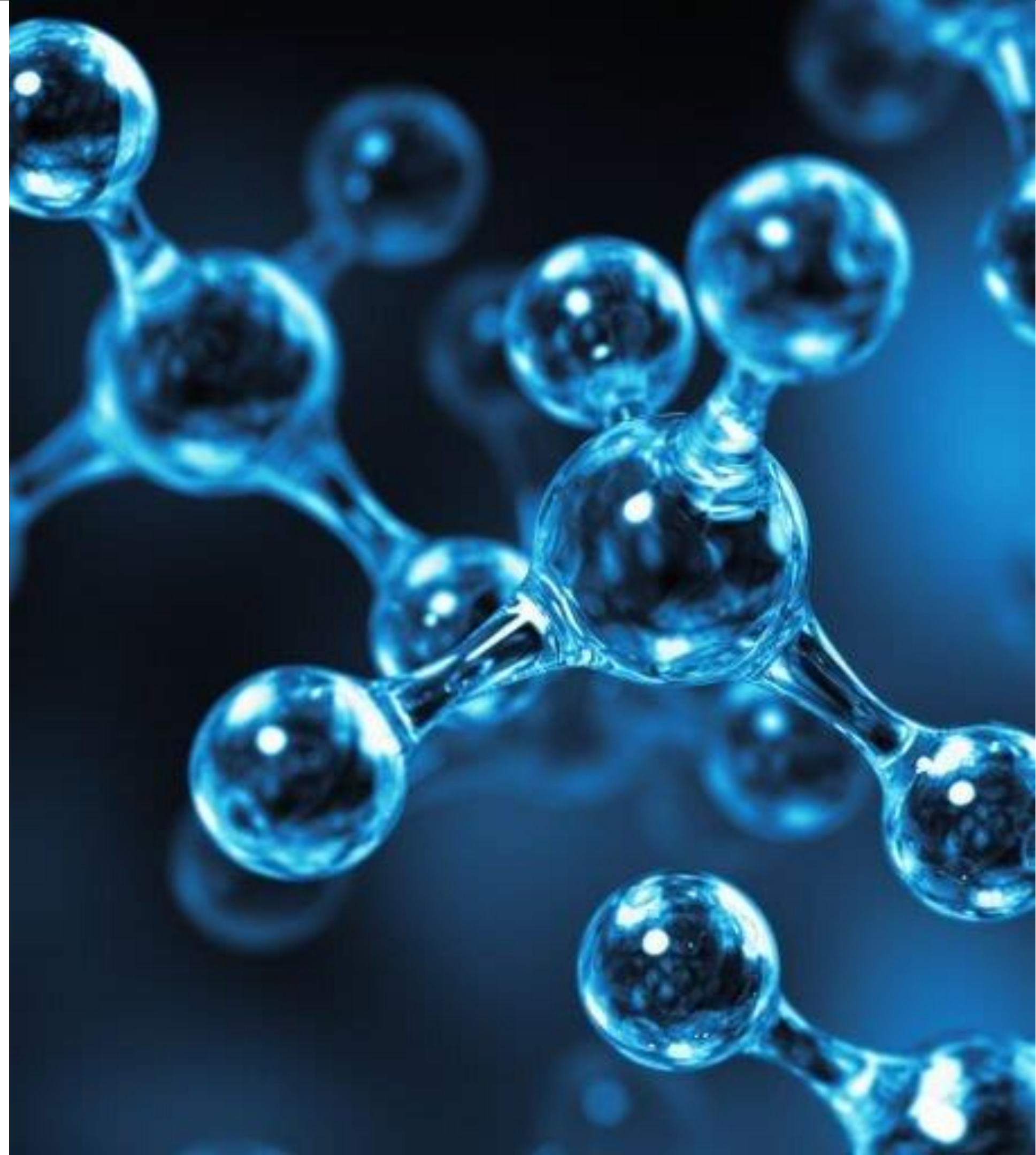
Dhanuka Agritech Ltd.

- Flagship of the Group founded in 1980.
- Listed on Stock Exchanges for 35 years with a Market Cap of USD 600mn
- Manufactures a wide range of farm input products
- The Company has pan India presence with a network of more than 6000 distributors reaching out to more than 10 million farmers
- The Company has technical tie ups with 4 American and 6 Japanese companies

Dhanuka Laboratories Ltd.

- Pharmaceutical arm started in 1998
- Leader in Cephalosporin Antibiotics in Emerging markets
- JV with Otsuka - Japan, for manufacturing advanced intermediates
- 2 API Manufacturing Facilities, both Cephalosporin and NPNC

Why Orchid



Strong R&D capabilities

Orchid pharma has been focused on R&D, will continue to invest in it



Orchid's expertise encompass the entire spectrum of Pharmaceutical R&D

1. Synthesis R&D
2. Analytical R&D
3. Intellectual Property Management

More than 900 patents filed internationally

8 FTF till date for Orchid

All these combined, give us the strength and ability to file First to File Para 4 applications for US and other regulatory markets.

Non – Infringing Process Development

Impurity Qualification

Impurity Characterization

Patent Invalidation Strategy

Widest range of Cephalosporins

Ready to launch

Under development

	Generation 1	Generation 2	Generation 3	Generation 4	Generation 5	Generation 6
Oral	<ul style="list-style-type: none"> → Cefadroxil → Cefalexin → Cefradine 	<ul style="list-style-type: none"> → Cefprozil → Cefuroxime 	<ul style="list-style-type: none"> → Cefdinir → Cefditoren → Cefixime → Cefpodoxime → Ceftibuten 			
Sterile	<ul style="list-style-type: none"> → Cefalonium → Cefalothin → Cefazolin 	<ul style="list-style-type: none"> → Cefoxitin → Ceforanide → Cefotiam 	<ul style="list-style-type: none"> → Cefotaxime → Ceftiofur → Ceftizoxime → Ceftriaxone → Cefoperazone → Ceftazidime → Cefovecin → Cefcapene 	<ul style="list-style-type: none"> → Cefepime → Cefpirome → Cefquinome → Cefiderocol 	<ul style="list-style-type: none"> → Ceftaroline → Ceftobiprole → Ceftolozane 	<ul style="list-style-type: none"> → Cefepime + Enmetazobactam → Ceftazidime + Avibactam

Leading - Integrated Cephalosporin API company



- ❑ Vertically integrated with credentials in research, development, manufacturing and marketing
- ❑ Integrated facilities from Intermediates to API spread across 60 acre, approved worldwide
- ❑ Presence across the antibiotic domains spread across oral and sterile categories of more than 30 products
- ❑ Multiple Blocks
 - ❑ Sterile – 3 Crystalline and 1 Lyophilized
 - ❑ Oral – 7 Blocks
 - ❑ Intermediates – 5 Blocks
- ❑ Footprint across 60 countries through direct presence, alliances and partnerships



Experienced Board & Management Team



Mr. Ram Gopal Agarwal

Chairman and Non-Executive Director
Founder Chairman of Dhanuka Group with over 5 decades of leadership experience
Chairman of FICCI Crop Protection Committee



Mr. Manish Dhanuka

Managing Director
Visionary Leader at the helm of affairs of Pharma Division.
An IIT'ian with 25+ years in Pharma Industry
Director at JV with Otsuka, Japan



Mr. Arun Dhanuka

Non-Executive Director
Director at DLL, DAL and Orchid with over 4 decades of experience
In-charge of commercial matters of the Pharma Division



Mr. Mridul Dhanuka

Whole-Time Director
Chemical Engineer & MBA; Associated with Dhanuka Group Ltd. since 2005.
Operations Head at Dhanuka Agritech, now moved to Orchid.



Dr. Dharam Vir

Independent Director
Ph.D. in synthetic chemistry with more than 3 decades of R&D experience at various Pharma majors



Mr. Mudit Tandon

Independent Director
Graduate of ISB and worked in Venture Capital field
Runs a large fashion accessory company



Ms. Tanu Singla

Independent Director
Qualified Company Secretary, L.L.B and She has expertise in Business Management, Finance, Accounts, Audit, real estate



CA Manoj Goyal

Independent Director
Practicing CA and an auditor of banks and other large businesses.
He was a Statutory Auditor of different Banks, Insurance Companies and public sector undertaking



CA Sunil Kumar Gupta

CFO
CA, with 36 years of experience in varied industries as financial controller



Dr. S Srinivasan

Head CTD & IPM
Ph.D. in Synthetic Organic Chemistry. 26+ years of experience in new product development for small molecule APIs, Process development & optimization.



Dr. RJ Sarangdhar

Site Head of Ceph API
3 decades of experience in process development, technology transfer and more than 10 patents to his credit



Mr. D Chellapandi

SGM-Engineering
35+ years of experience in operation, maintenance of engineering functions, energy conversion, solvent recovery and environment management

Future Strategy



Growth Drivers



01

Scale

02

7 ACA and Downstream Products

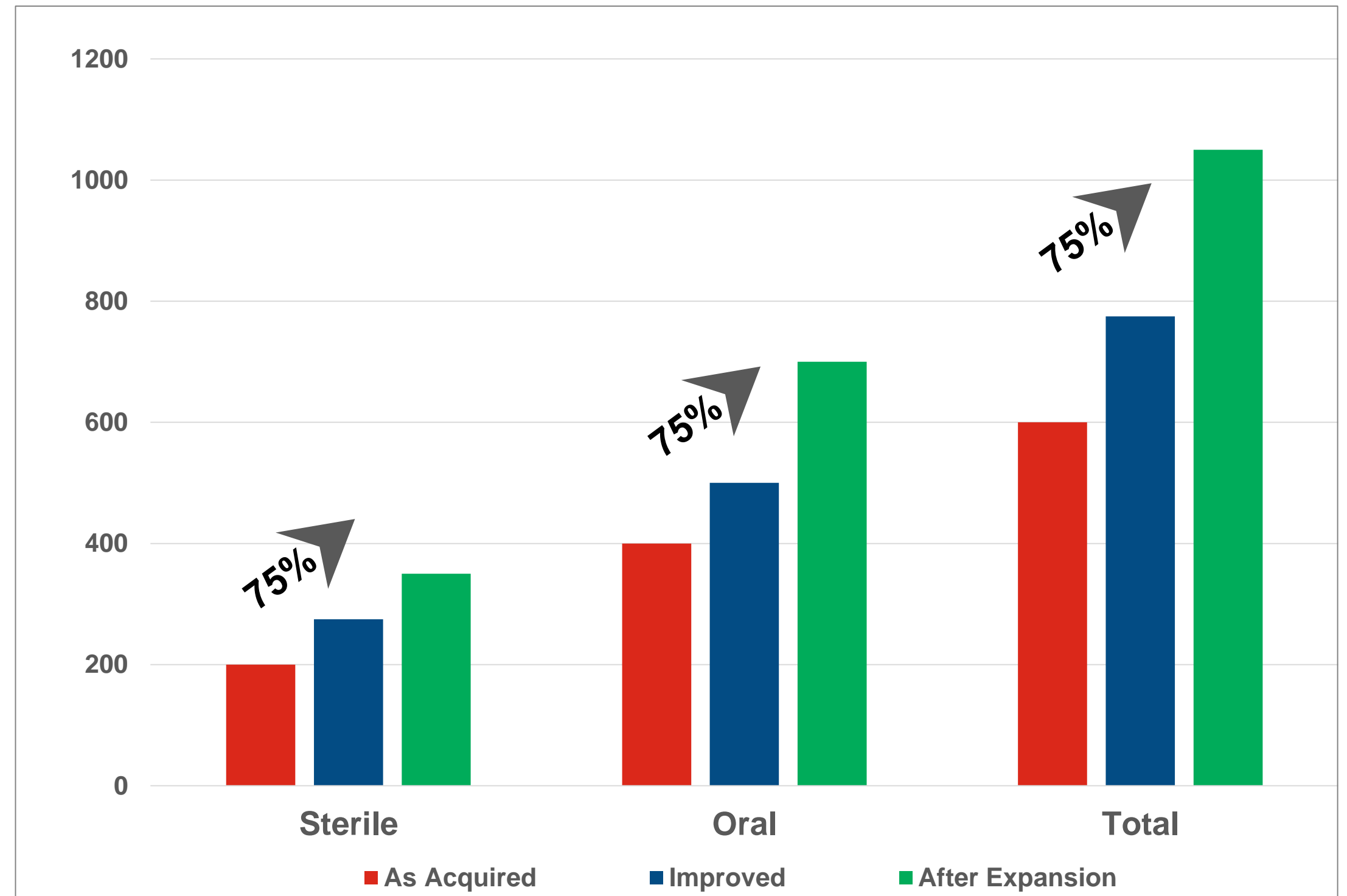
03

New Products

04

**New Chemical Entity –
Enmetazobactam**

Scale – Capacity Addition



7ACA and Downstream Products

Growth Driver



Size of 7ACA Market

(including downstream products)

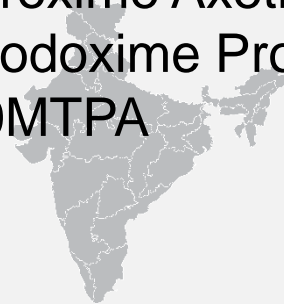
World Market

- ~ 10000MT ~ \$600mn growing at 5% CAGR
 - Adding 500MT demand per year.
- China controls 100% world market



India Market

- India Market Size ~ 4000MT of 7ACA
 - Key Downstream Products – **Sterile**
 - Ceftriaxone – 6000MTPA world market,
 - 2000MTPA Imports into India
 - Key Downstream Products - **Oral**
 - Cefuroxime Axetil and Cefpodoxime Proxetil – 1500MTPA



Orchid

- 1000MTPA per annum



PLI – A Step towards



**AATMA-NIRBHAR
BHARAT**

- Orchid has received 1000MTPA approval from Government of India in its WoS – Orchid BioPharma Ltd. (OBPL)
- ~ Price of 7ACA = \$63
 - PLI from GOI @ 20%

Location – Jammu

- Benefits under New Central Sector Scheme for Industrial Development of Union Territory of Jammu & Kashmir
- 18% GST Refund

Current Status

- Land under Acquisition Stage in Jammu
- Pilot Plant setup at Orchid, Chennai started
- Commercial Production – Jan 2025

7ACA Downstream Products

80% will be used by Orchid-in-house

- 55% shall be used to make **1000MT** of **downstream products** at an average price of \$85
- 25% is Orchid's current self Imports

20% will be sold in the open market

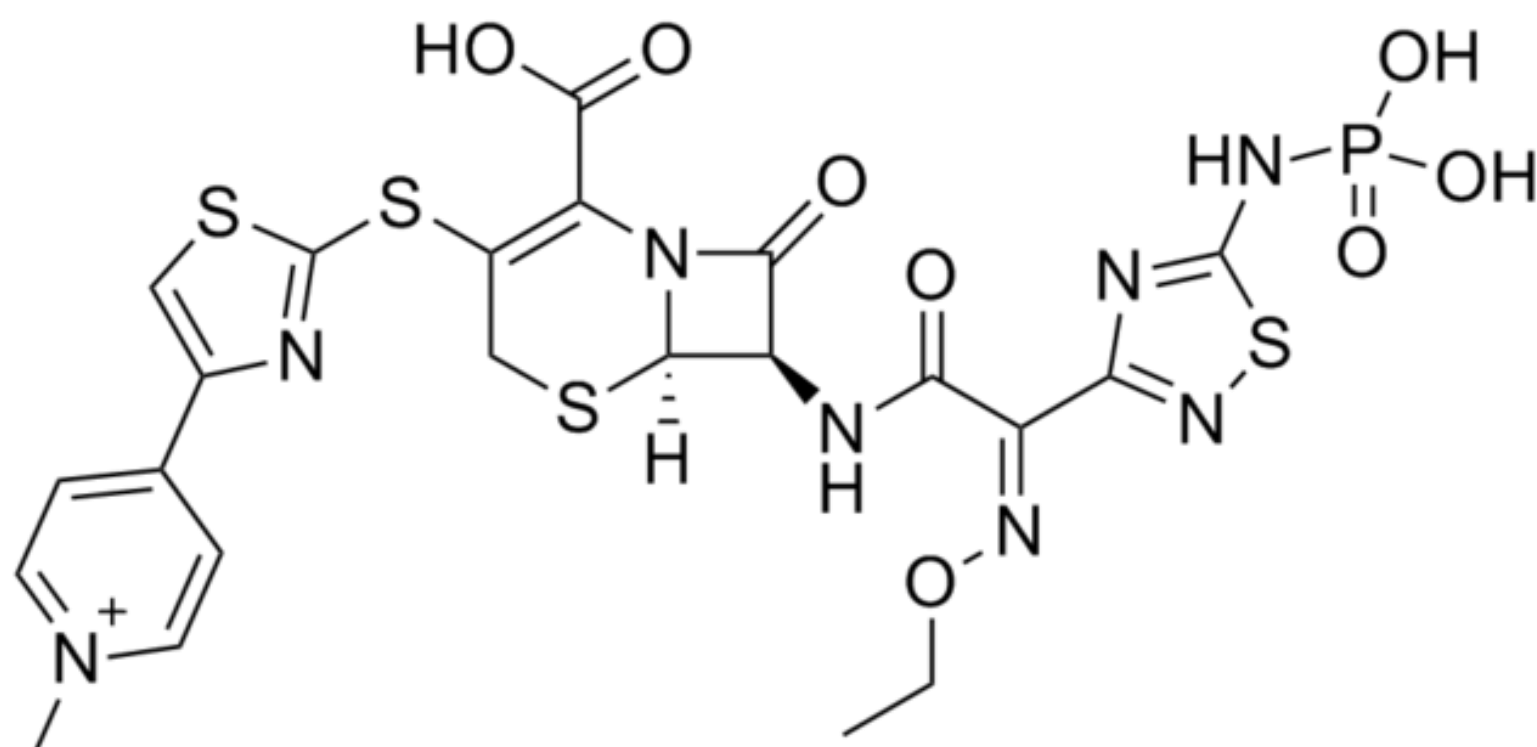


New PRODUCTS

Growth Driver



Ceftaroline



→ ORIGINATOR

- Forest Labs (Allergan)

→ MARKET SIZE

- US - USD160mn
- ~ INR 1250 Crore

→ After Patent Expiry in 2023, volume will multiply and price will reduce

→ We estimate a net market size multiplication by 2x after Genericization ~ 2500 Cr

Orchid Target Dates

US Market

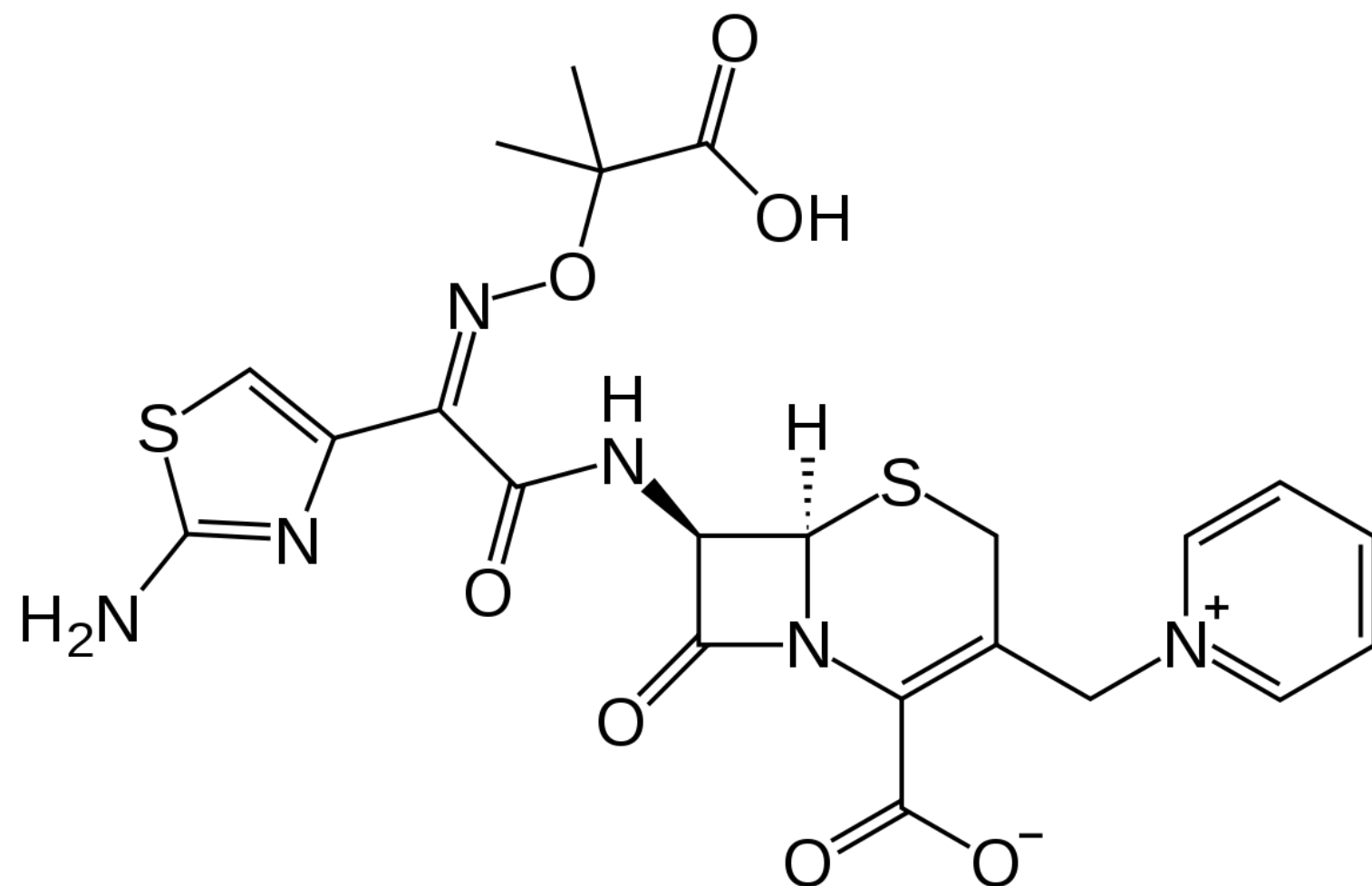
→ DMF Filing – June 2023

→ ANDA Filing – Jan 2024

Other Markets

→ Product Available in Jan 2023

Ceftazidime/ Avibactam



→ ORIGINATOR

- Allergan / Pfizer

→ MARKET SIZE

- USD 450 Mn
- ~ INR 3600 Crore

→ PATENT STATUS

- US – November 2026
- Emerging Markets – January 2023

→ After Patent Expiry, volume will multiply, and price will reduce

→ We estimate a net market size multiplication by 1.5x after Genericization ~ 5400 Cr

Orchid Target Dates

US Market

→ FTF Para IV - ANDA Filing – Feb 2024

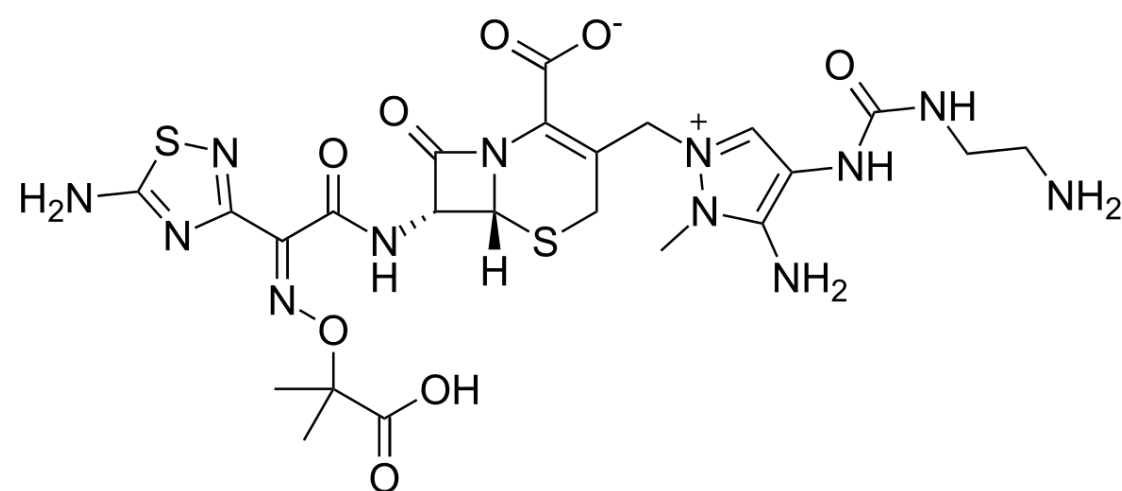
Emerging Markets

→ Product Available in Jan 2023

Future Products Pipeline

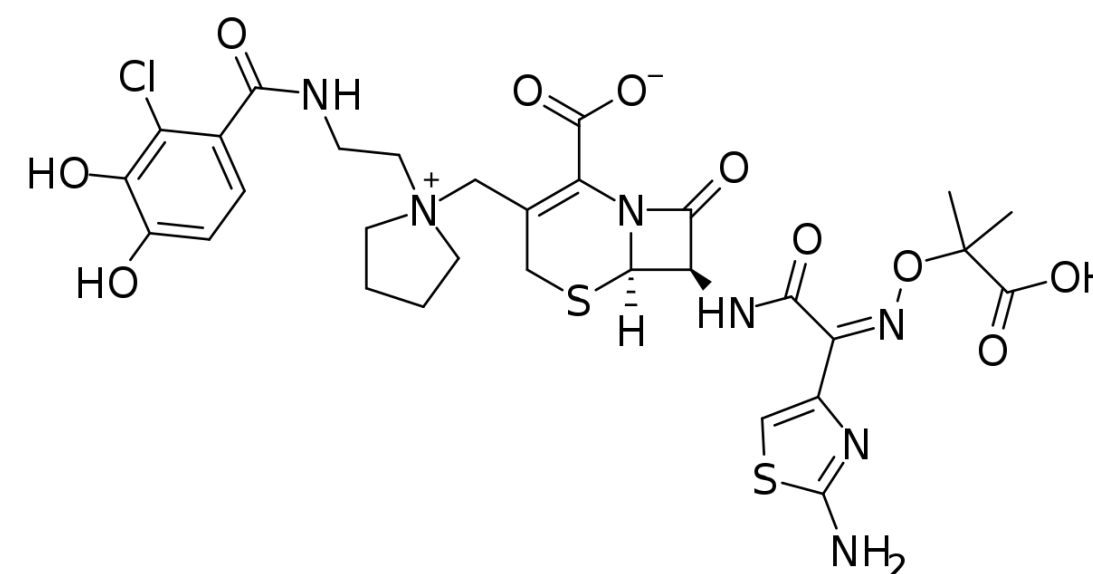
Ceftolozane - Tazobactam

- Originator – Merck
- First Approved in US Jan 2016



Cefiderocol

- Originator Shionogi
- First Approved in US Nov 2019



NCE Enmetazobactam Growth Driver



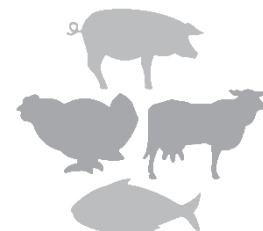
Antibiotic Resistance – The challenge



Poor infection control in hospitals and clinics



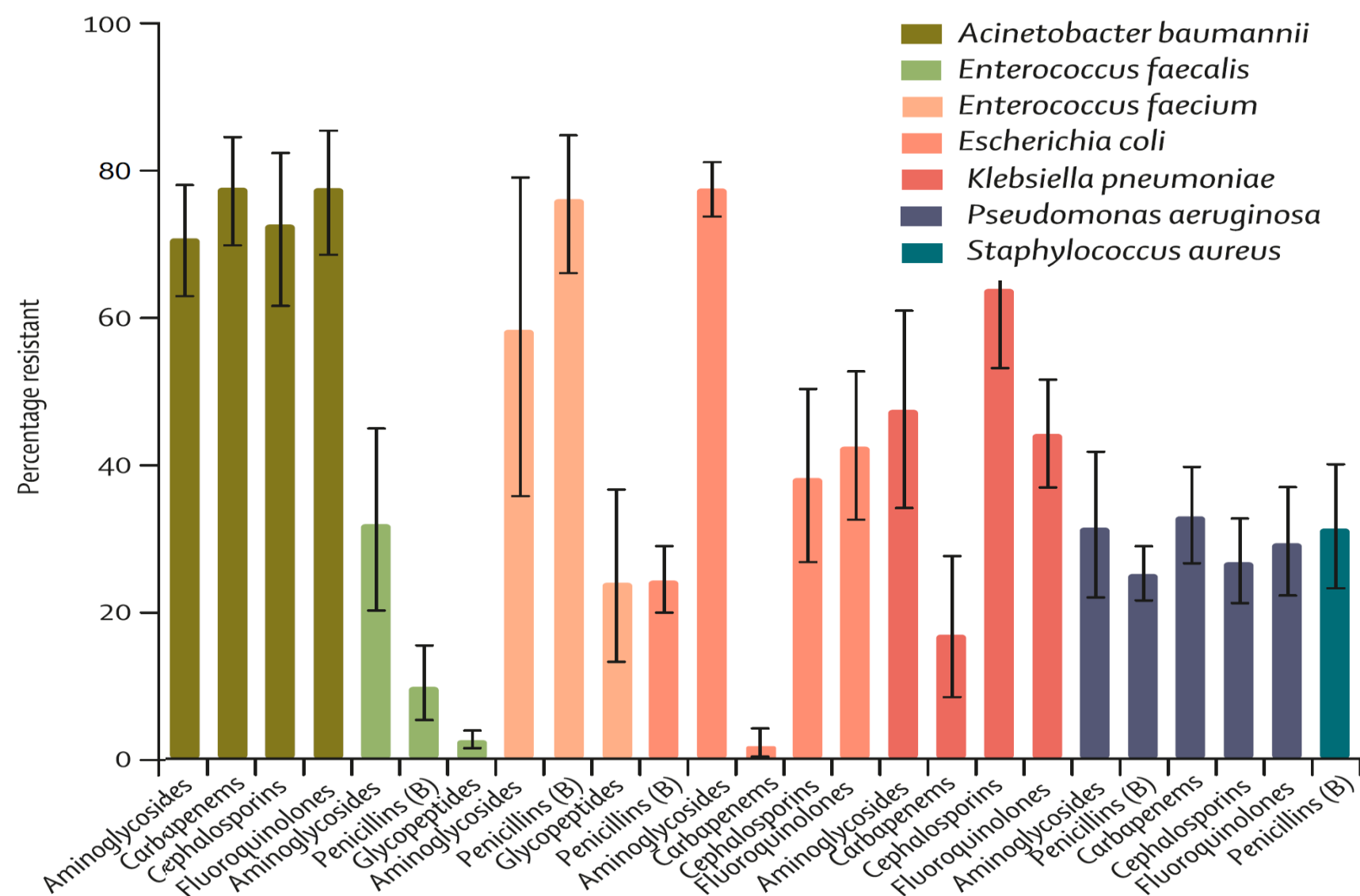
Over-prescribing of antibiotics



Unnecessary antibiotics used in Animal Husbandry



Patients not taking antibiotics as prescribed



Importance of Enmetazobactam



- Enmetazobactam – a Beta Lactamase Inhibitor (BLI), lowers the resistance of the Antibiotic to make it effective again
- Best example – Augmentin of GSK, a 50-year-old drug. Combined with BLI, is largest selling Antibiotic in the world today
- Phase 3 Clinical Trials were cleared in December 2020
- Compared with Piperacillin – Tazobactam (BL-BLI combination just like Cefepime – Enmetazobactam and std of care for UTI)
- Against 59% Efficacy of Pip-Taz, Enmetazobactam is **79%** effective

World Market Estimation Indicators

PIP-TAZ market
~ \$1bn
at Patent Expiry

AVYCAZ market of
~\$450mn

CEFTRIAXONE
6000MT
worldwide market

Looking at its Potential,

- December 2020, out-licensed to Shanghai Haini Pharmaceuticals for Greater China at a value of USD 78 Mn plus royalties
- Jan2022, out-licensed to Advanz Pharma for Europe, for milestone payments, in addition to double-digit royalties

- Estimated annual global sales of USD 200 Mn –300 Mn pa (10Y Avg)
- Orchid entitled to Royalty from Allecra ~ USD 16 Mn – USD 25 Mn pa
- Orchid has rights to develop and commercialize the molecule in India



Enmetazobactam - Domestic

Domestic Injectable Antibiotic Size 7000 Crore

Largest Products

PIP-TAZ

800 ~ 1000 Cr

20% Better Efficacy

CEFTRIAXONE

1200 ~ 1500 Cr

Bacteria are already
resistant

MEROPENEM

~ 1000 Cr

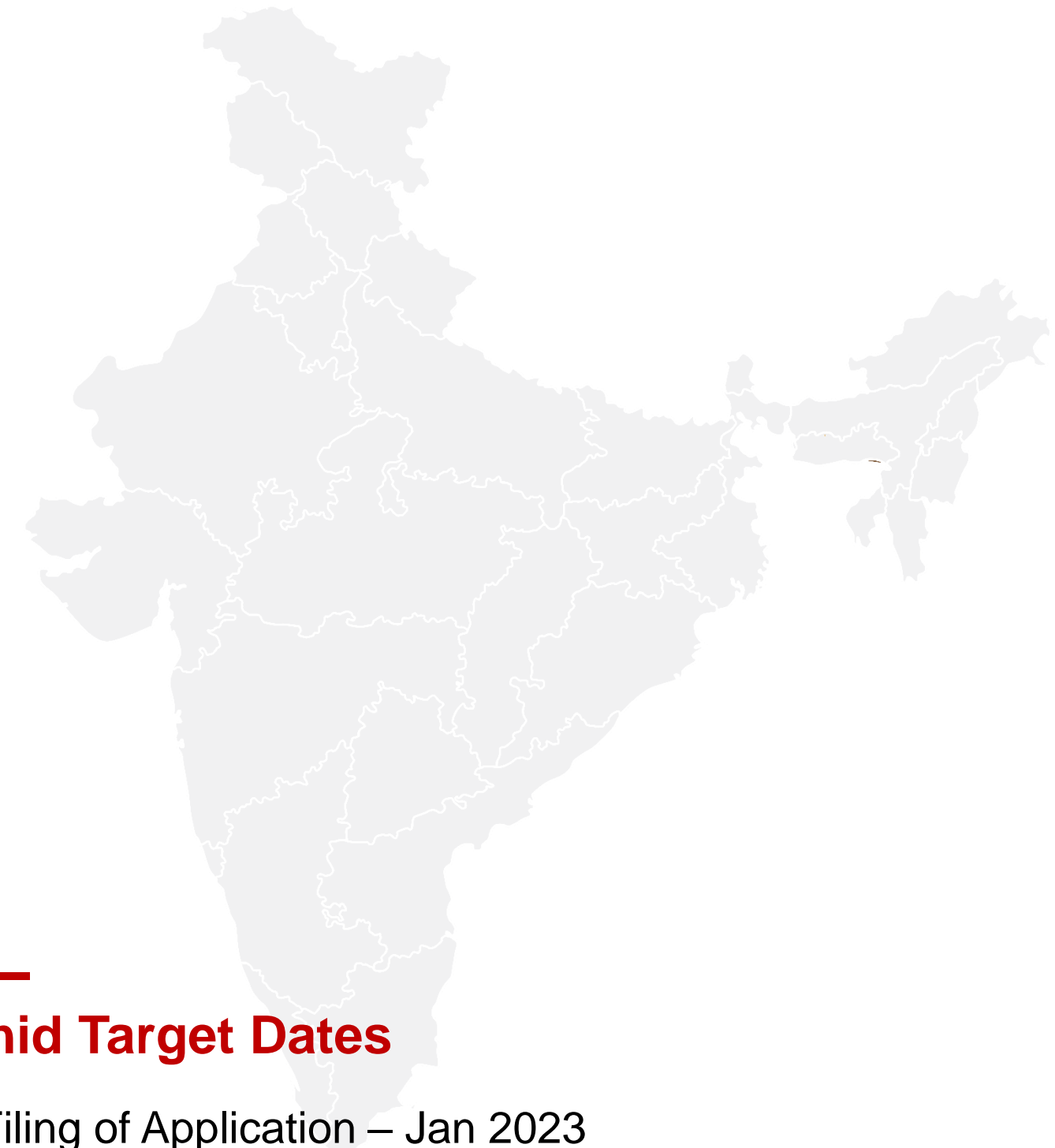
This is a Carbapenem.

Last Resort Antibiotic.

Should be saved for more
serious diseases.

Orchid Target Dates

- Filing of Application – Jan 2023
- Clinical Trial Complete – Jan 2024
- Approval of Drug and Launch – April 2024



Thank You!