



**JUBILANT
PHARMOVA**

Analyst Day Presentation

June 2021

Disclaimer



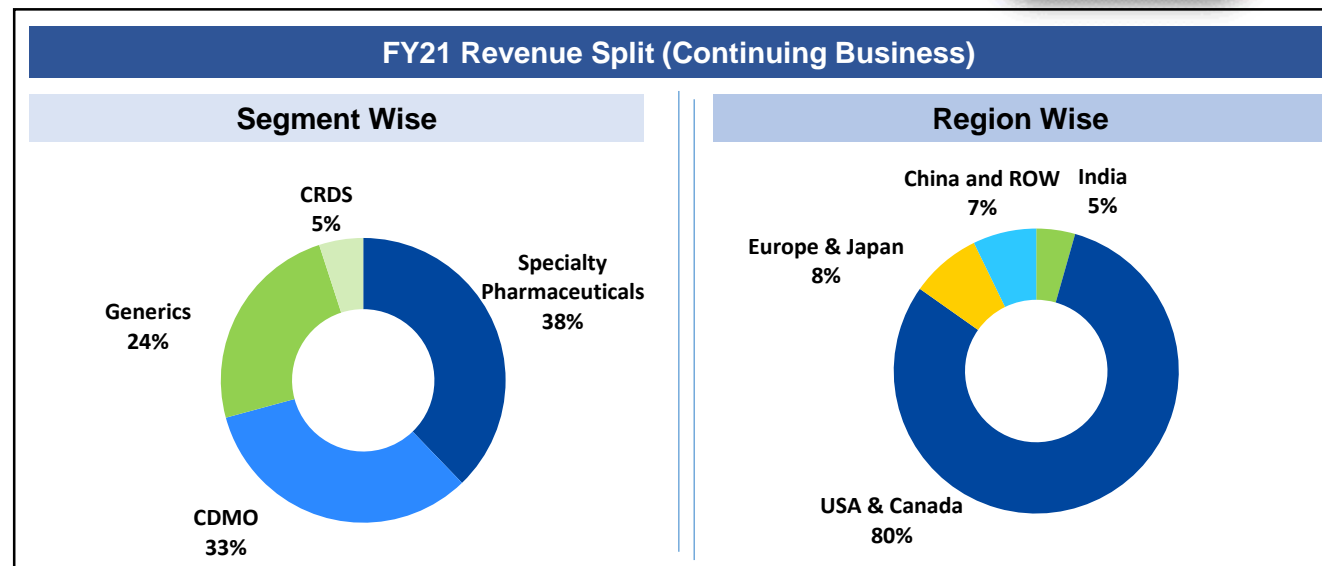
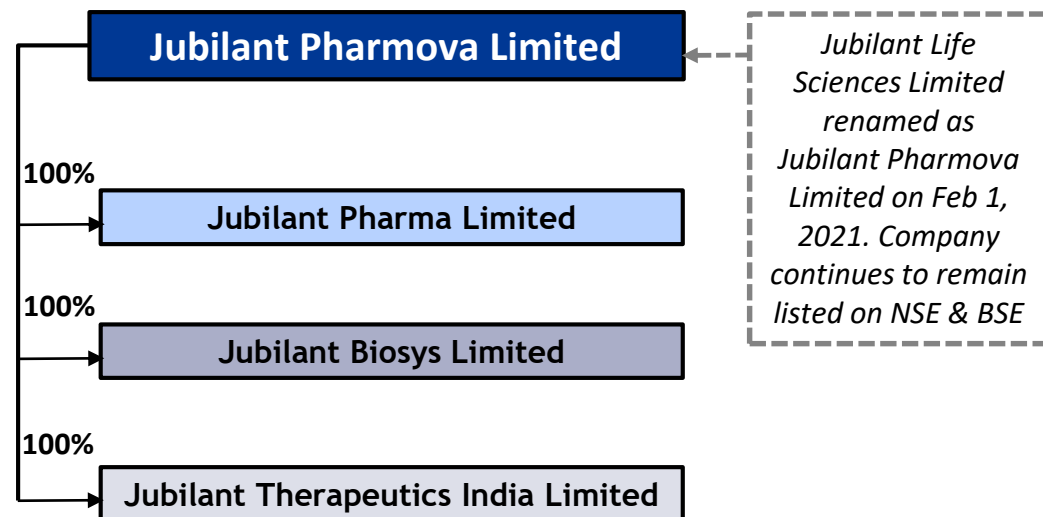
Statements in this document relating to future status, events, or circumstances, including but not limited to statements about plans and objectives, the progress and results of research and development, potential product characteristics and uses, product sales potential and target dates for product launch are forward looking statements based on estimates and the anticipated effects of future events on current and developing circumstances. Such statements are subject to numerous risks and uncertainties and are not necessarily predictive of future results. Actual results may differ materially from those anticipated in the forward-looking statements. Jubilant Pharmova may, from time to time, make additional written and oral forward looking statements, including statements contained in the company's filings with the regulatory bodies and our reports to shareholders. The company assumes no obligation to update forward-looking statements to reflect actual results, changed assumptions or other factors.

Agenda

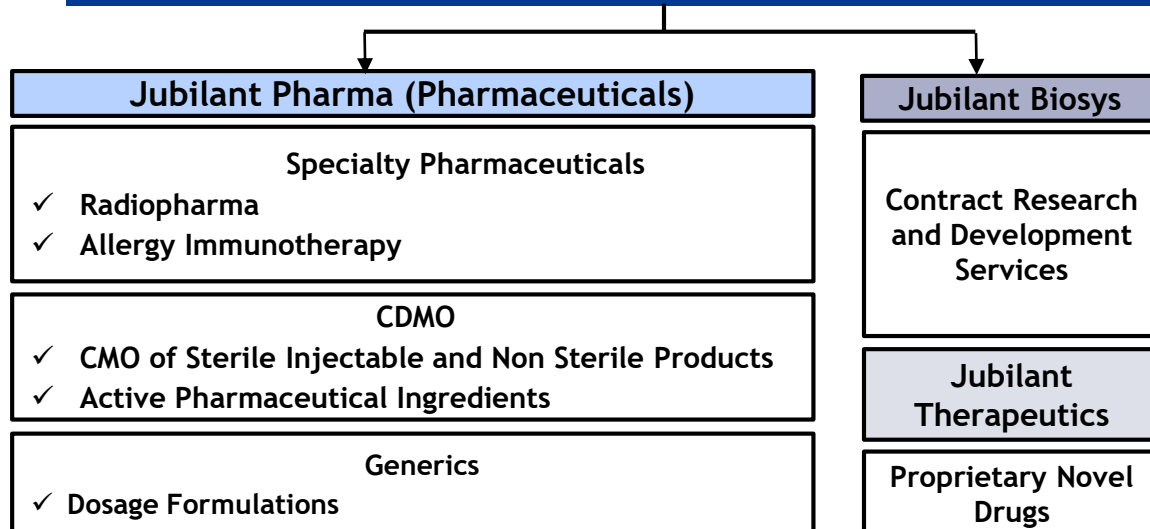


Topic	Presenter	Designation
Initial Address	Mr Shyam Bhartia, Mr Hari Bhartia	Chairman and CCMD
GCFO address	Mr Arvind Chokhany	Group CFO
Jubilant Pharma, Evolution and Strategy	Mr Pramod Yadav	CEO, Jubilant Pharma
Radiopharma	Mr Sergio Calvo	President, Radiopharmaceuticals
Allergy	Mr Chris Preti	President, ABU
CMO	Mr Amit Arora	President, CMO
API	Mr Gunjan Singh	Head, API business
Generics	Mr Terry Fullem	President, Jubilant Cadista
	Mr Jasdeep Singh	President, Generics (Non-US)
Jubilant Pharma Financials	Mr Christopher Krawstchuk	CFO, Jubilant Pharma
Contract Research and Development Services	Mr Marcel Velterop	President, Jubilant Biosys
Proprietary Novel Drugs	Dr Syed Kazmi	CEO, Jubilant Therapeutics
Jubilant Pharmova Financials	Mr Arun Sharma	CFO, Jubilant Pharmova
Q&A	Jubilant Pharmova Team	

Jubilant Pharmova Limited – Overview



Business Structure



Key Highlights

- **US\$ 820 million integrated global pharmaceuticals, and contract research company**
- **Strong position** in Specialty Pharmaceuticals – radiopharmaceuticals, allergy immunotherapy and CMO of Sterile Injectables & Non-Sterile products
- One of the leading India based Contract research and development companies
- Proprietary business has strong portfolio of programs in the areas of oncology and autoimmune disorders
- **6 US FDA approved mfg. facilities** including 4 in North America and 2 in India; 2 world class facilities in India for contract research
- Employs ~5,800 people globally, including over 2,300 in North America

Jubilant Pharmova – Business Overview



Pharmaceuticals

1

Radio
pharma

Specialty Pharmaceuticals

- #3 radiopharmaceutical manufacturer in the US
- Manufacturing facility based in Montreal Canada
- # 2 commercial radiopharmacy network in the US with 48 radiopharmacies spread across 22 states in the US

2

Allergy
Immuno-
therapy

- #2 player in the allergenic extract market in the US
- Sole supplier of venom in the US
- Manufacturing facility at Spokane, Washington, USA

1

CMO

CDMO

- Fully integrated leading contract manufacturer
- Integrated with Radiopharma business as supplier of cold kits
- Manufacturing facilities in Spokane, US and Montreal, Canada

2

API

- Manufacturing facility at Nanjangud, India
- ~60% of API sales are to regulated markets
- Leading market share in key products in the US

1

Dosage
Formulations

Generics

- Manufacturing facilities at Roorkee, India and Salisbury, US
- Market leadership in select key products in the US
- Vertical integration into API business

Contract Research and Development Services

- Fully integrated Drug Discovery services provider
- Facilities in Noida and Bangalore
- Provides Drug Discovery services to global innovators with focus on US, EU and Japan.

Proprietary Novel Drugs

- Developing first-in-class and best in class programs in the area of oncology and autoimmune disorders
- Four of the assets under development are at an advanced pre-clinical stage and would transition to clinics early next year

Experienced Management Team



Shyam S Bhartia
Chairman
41 industry years in pharma, specialty chemicals, foods, oil and gas, aerospace and IT



Hari S Bhartia
Co-Chairman & Managing Director
35 industry years in pharma, specialty chemicals, foods, oil and gas, aerospace and IT



Arvind Chokhany
Group Chief Financial Officer
25 years of Industry Experience



Rohini Seth
Group Chief Human Resources Officer
25 years of industry experience



Ajay Khanna,
Group Chief Strategic & Public Affairs
37 years of industry experience

Pharma

Contract Research and Development Services

Proprietary Novel Drugs



Pramod Yadav
CEO - Jubilant Pharma
34 years of Industry Experience



Marcel J Velterop
President – Jubilant Biosys
30 years of Industry Experience

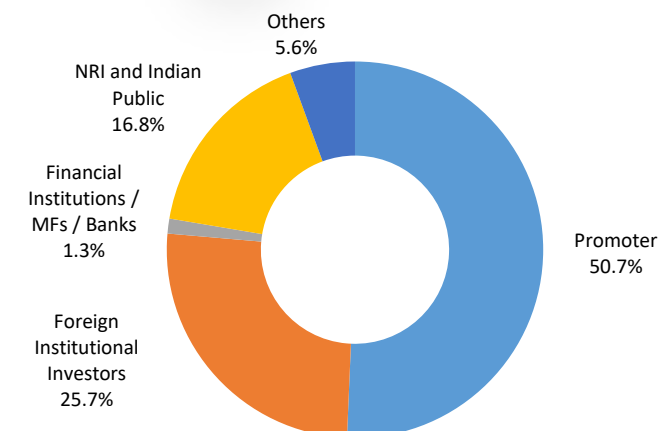


Syed Kazmi
President & CEO – Jubilant Therapeutics
28 years of Industry Experience

Jubilant Vision

- ✓ To acquire and maintain global leadership position in chosen areas of businesses
- ✓ To continuously create new opportunities for growth in our strategic businesses
- ✓ To be among the top 10 most admired companies to work for
- ✓ To continuously achieve a return on capital of at least 10 points higher than the cost of capital

Shareholding Structure

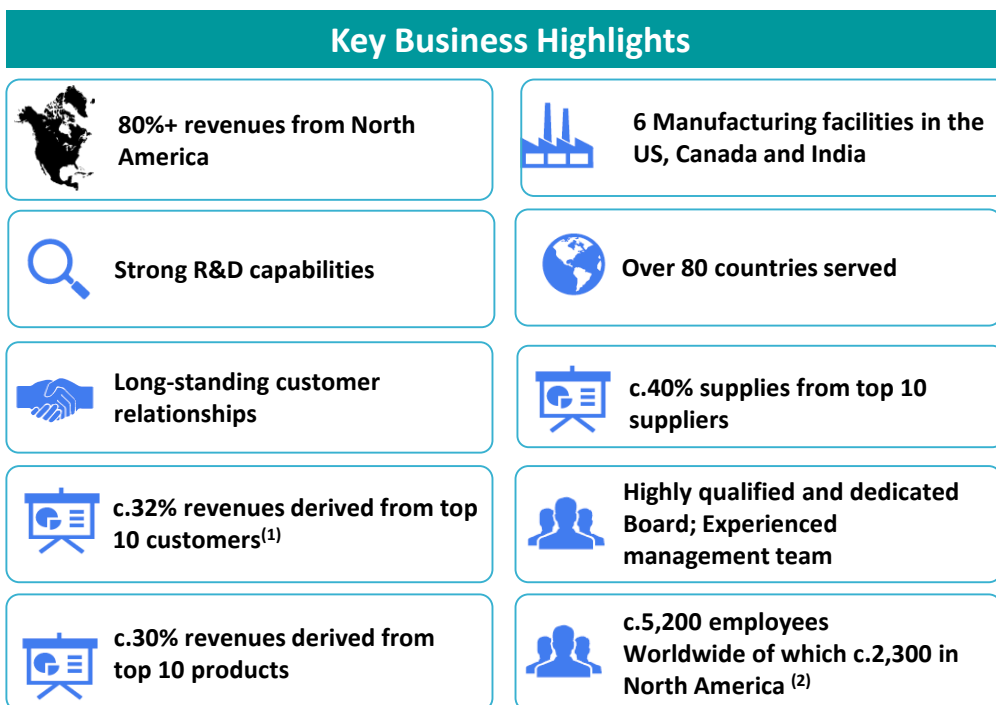
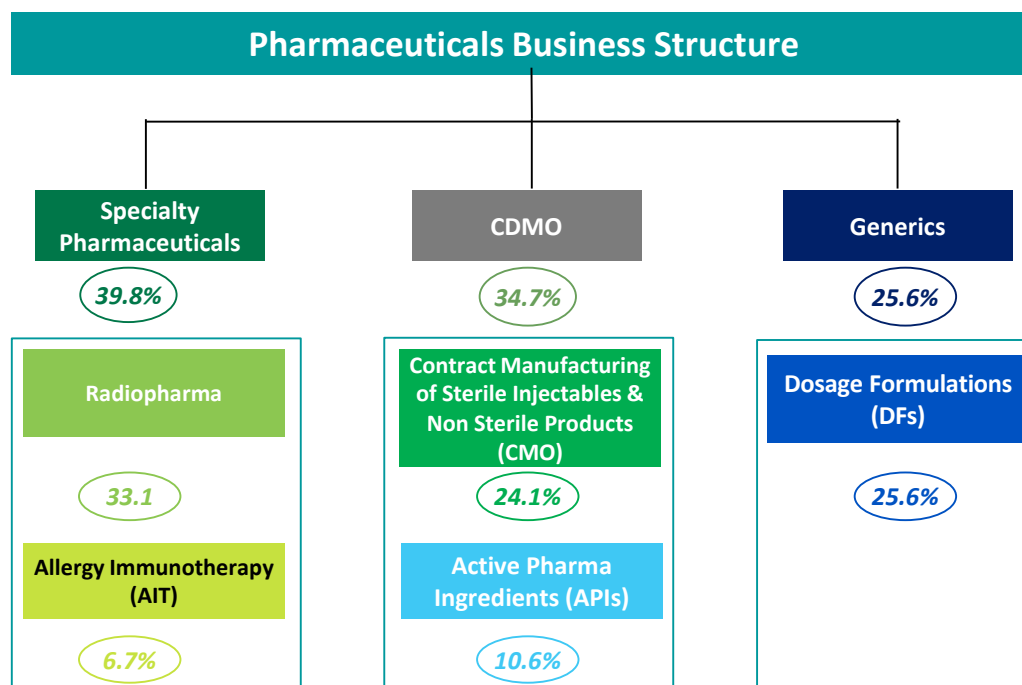
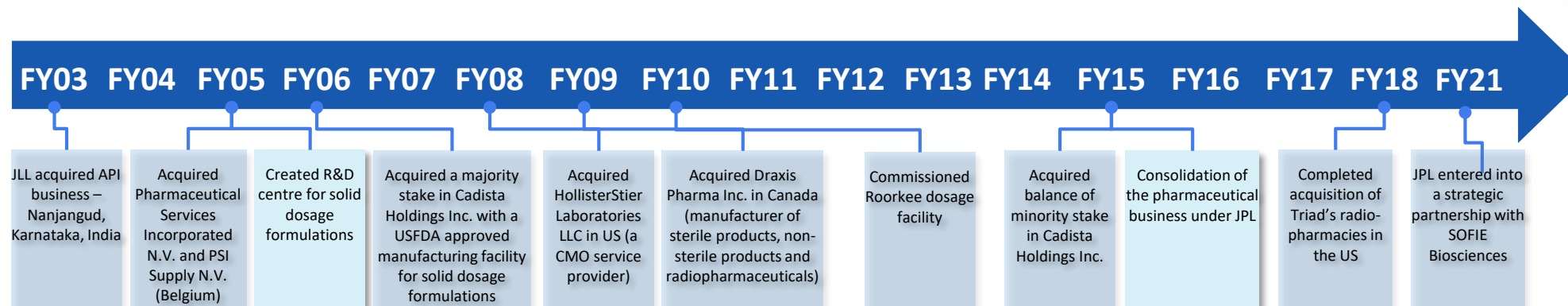


As of 31st March 2021

Pharmaceuticals Business - Jubilant Pharma



Pharmaceuticals Business Structure and Evolution: Strong M&A track record

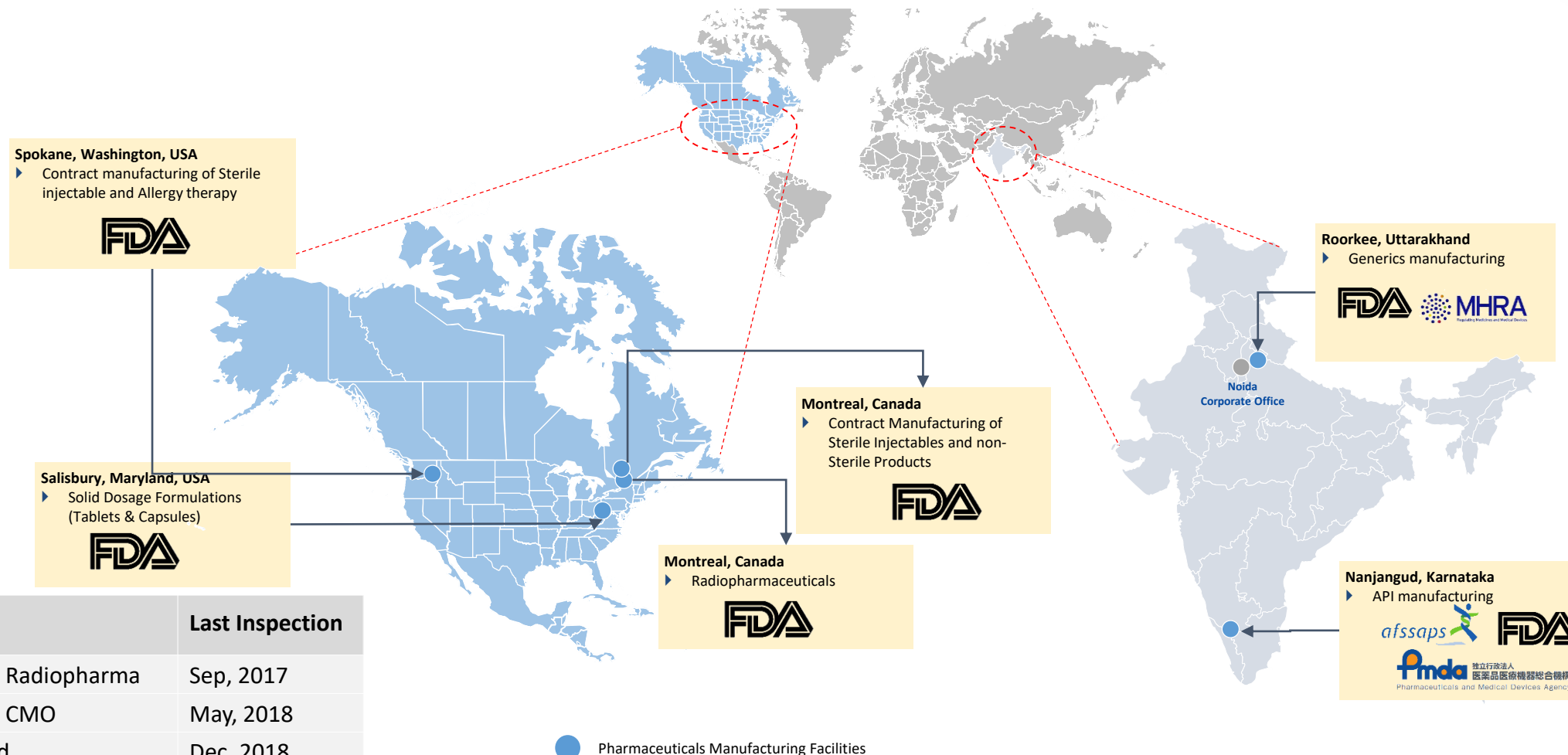


○ % of Pharma Business FY21 Revenue

(1) Excluding GPOs but including customers purchasing goods and services through such GPOs

(2) Data as of and for the period ending March 31, 2020

High-Quality Manufacturing Footprint



4 US FDA approved manufacturing facilities in North America and 2 USFDA approved manufacturing facilities in India

Facility	Last Inspection
Montreal, Radiopharma	Sep, 2017
Montreal, CMO	May, 2018
Nanjangud	Dec, 2018
Salisbury	Feb, 2020
Spokane	Mar, 2021
Roorkee	Mar, 2021

Each of the 6 businesses operate in growing markets with considerable headroom for growth

Segments	Business Units	Market Dynamics	Market Size, \$Bn	Growth Outlook
Specialty Pharmaceuticals <i>Niche US focused businesses with high barriers to entry requiring front-end presence</i>	Radio-pharmaceuticals	High barriers to entry (complex manufacturing, customer stickiness, and stringent regulations) and limited price erosion	<div>Niche \$8-\$9 Bn</div>	6-8%
	Radio-pharmacies	High barriers to entry (regulatory, complex supply chain); long term customer contracts		3-5%
	Allergy	High barriers to entry (complex supply chain, high customer switching costs, regulatory barriers) and concentrated market		3-4%
CDMO <i>Operations oriented businesses requiring cost and quality leadership, robust BD, agile R&D</i>	CMO	Tailwinds due to shortage of injectable capacity (Especially with vaccines); entry barriers due to emphasis on quality, supply, capital investments	<div>Medium \$5-25 Bn</div>	6-8%
	API	Tailwinds such as disruptions in China, favorable policy reforms , shift in demand towards complex APIs		7-8%
Generics <i>Businesses requiring ability to identify, develop and launch niche products</i>	Dosages	Improved outlook in US generics due to increased Loss of Exclusivity opportunity and stabilization of past trends (e.g., saturation of Generics substitution) and stable de-risked growth at an aggregate level across non-US markets	<div>Large >\$25 Bn</div>	6-7%

Each of the six businesses are at different stages of evolution



Stages of Evolution

Sustain Momentum

Maintain growth rates and protect margins to generate cash

Radiopharmaceuticals

Protect leadership in stable, highly profitable products like MAA, DTPA, and scale/ launch innovative growth engines like Ruby-fill

Allergy

Leverage sole supplier status of venom AIT in US to build volumes, expand venom to large international markets

CMO

Sustain momentum with top customers, expand capacity of sterile fill & finish at Spokane by 50% by CY24 and new Ophthalmic line at Montreal in FY23

Scale-up

Leverage robust platforms and market tailwinds to drive profitable growth

API

Leverage leadership position in niches, investment in high growth pipeline and customer relationships with continued focus on cost improvement

Generics

US: Scale current toe-hold with on-time launch of robust pipeline, on-shore manufacturing and EBITDA improvement measures
Non US: Scale seeded-in emerging markets with new product launches

Turnaround

Restructure for profitability

Radiopharmacies

Transform performance by growing revenues with key IDN/ GPO contracts, strategically expanding footprint and driving operational efficiencies

Looking ahead, markers are in place for sustained/accelerated growth across portfolio



Stages of Evolution

Sustain Momentum

Maintain growth rates and protect margins to generate cash

Radiopharmaceuticals

Encouraging traction in Ruby-fill post launch, **I-131 MIBG in Phase 2/3 trials**, market potential **\$240 Mn.**

R&D pipeline of **\$300 Mn** market size

Theranostic pipeline under partnerships

Allergy

Partnerships in place with global distributors for launch in international markets like Canada, Korea. In-licensing opportunities in the pipeline for adjacent products

Scale-up

Leverage robust platforms and market tailwinds to drive profitable growth

API

Customers seeded-in for pipeline products, debottlenecking capacity at Nanjangud by >30% and **evaluating new greenfield site.**

Generics

US: 37 pending ANDAs including high barrier products; **enhance local US facility** to capture "Make in US"

Non US: Exploring various US products into **focused Pharmerging markets** with business models including front end.

CMO

To cater increasing demand, further Capacity expansion at Spokane to double sterile fill and finish capacity from current levels, at Montreal expand sterile injectables, and one more multi-dose preservative free ophthalmic solutions with commercialization planned in next 4 years

Turnaround

Restructure for profitability

Radiopharmacies

Embarking on executing turnaround plan with an **aspiration set to achieve mid to high single digit EBITDA**

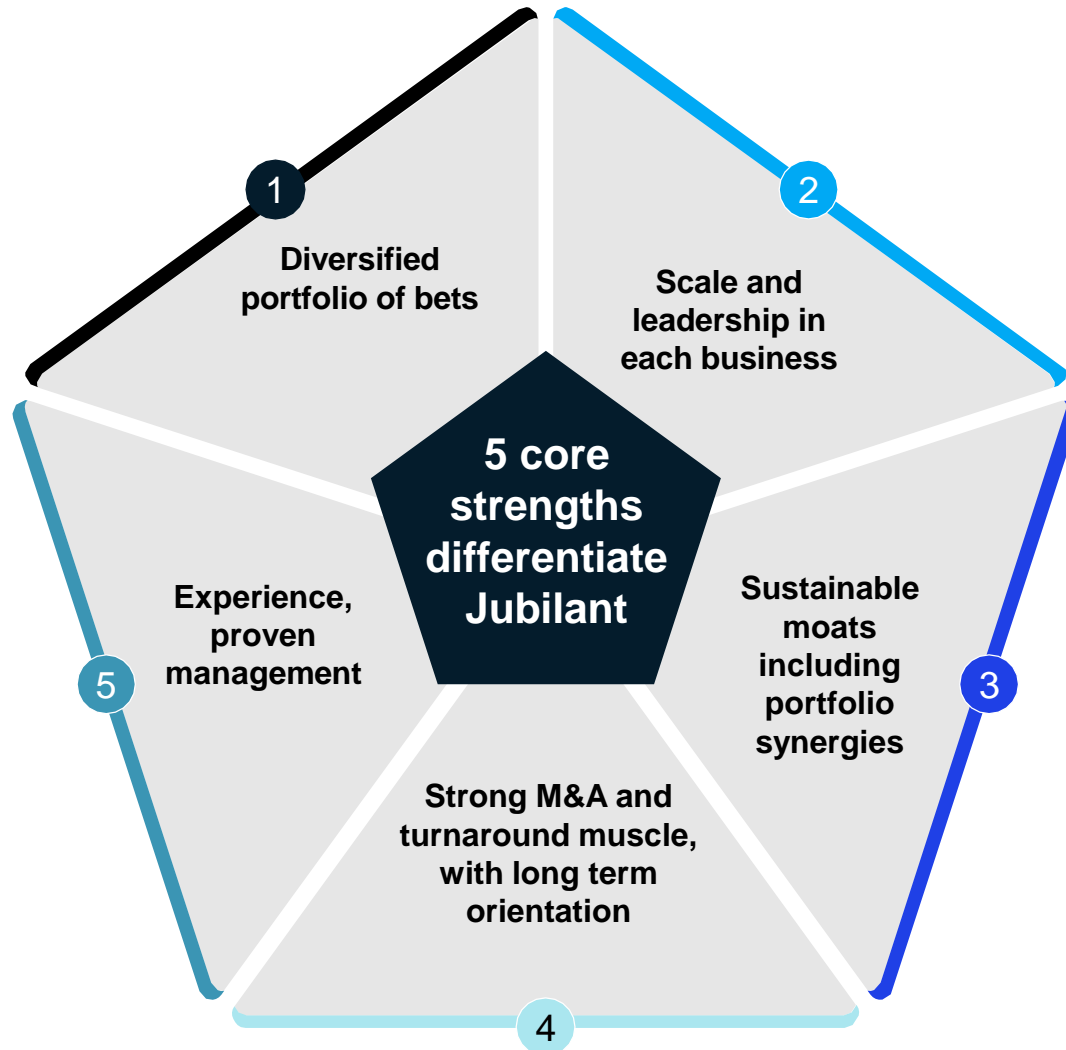
Several **foundational capabilities** already put in place (e.g., strong leadership, IT infra., quality systems)

Partnership with SOFIE to provide unique positioning to grow in PET diagnostics

Commercial engine in place to win large contracts with regional / national IDNs

Strategic footprint expansion to improve serviceability for larger accounts

Sustained out-performance to be driven by five key differentiators



- 1
 - Businesses with **different market dynamics and stage of evolution**
 - US-centric front-end and manufacturing help drive innovation and is supported by robust operations from India
- 2
 - **Specialty businesses have leadership in the US that we plan to continue to grow by in-house R&D and strategic partnerships**
 - **CMO, API, Generics** have leadership in **specific molecules / platforms**. We plan to enhance our presence in complex molecules via addition of manufacturing capabilities
- 3
 - **Most business segments have high differentiation** (e.g. entry barriers, long term customer relationships) that allow us to surpass competition
 - **Portfolio synergies** (e.g. Dosages vertical integrated with API, CMO manufactures for Radiopharmaceuticals and Allergy, Radiopharmacies is a distribution channel for Radiopharmaceuticals) help us to optimize costs
- 4
 - **Successful M&A** integral to each of the business journeys
 - Expertise in identifying and integrating assets, followed by **turnaround and scale-up** (e.g. CMO and Allergy turnaround in the last 5 years)
 - Expand innovative pipeline via partnerships
- 5
 - **Strong and stable leadership** with deep understanding of the industry
 - Each business led by an experienced leader and team with proven track record

Business and Industry Overview



A worker in a white protective suit and yellow gloves is working in a radiopharmacy cleanroom. The worker is standing behind a large, curved, stainless steel structure, possibly a hot cell or a large container. The background shows industrial equipment, including pipes, valves, and a control panel with a red emergency stop button. The lighting is bright and even.

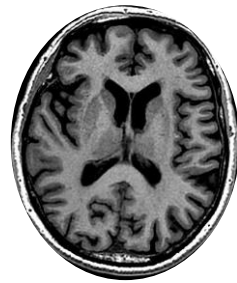
Radiopharma –

- Radiopharmaceuticals
- Radiopharmacies

Nuclear Medicine Plays a Major Role in the Diagnostic and Treatment of the Most Challenging Diseases

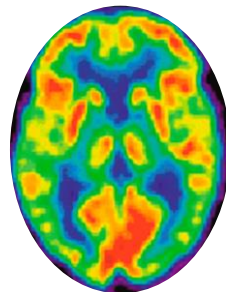
- Nuclear medicine uses radioactive drugs, also known as **radiopharmaceuticals**, to diagnose and treat disease.
- Over 40 million* nuclear medicine procedures are performed per year globally, of which 20M in the US.
- Traditional radiology (X-Ray, CT and MRI) visualize anatomy. nuclear medicine images physiology.
- There are three types of nuclear medicine procedures:
 - SPECT Imaging
 - PET Imaging
 - Radiopharmaceutical

Anatomy vs Physiology



MRI Image of the Brain

Anatomical images show the shape, size and density of tissues.



Nuclear Medicine scan of the brain

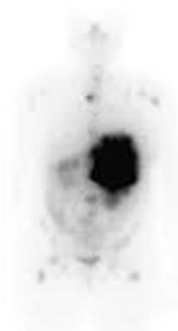
Physiological images answer questions like: are the cells active?

SPECT Imaging



Gamma Camera (or SPECT Scanner)

SPECT: Single-photon Emission Computed Tomography



Neuroendocrine cancer imaged with ^{111}In -Pentetreotide

PET Imaging



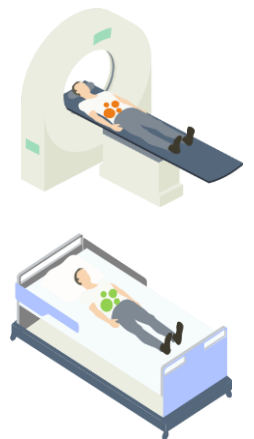
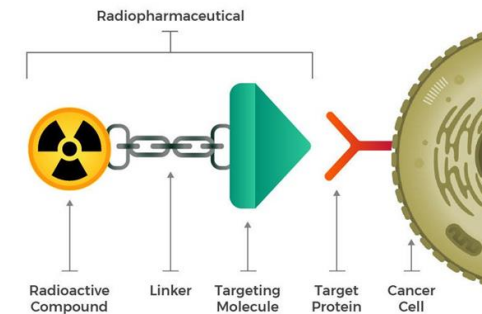
PET Scanner

PET: Positron Emission Topography



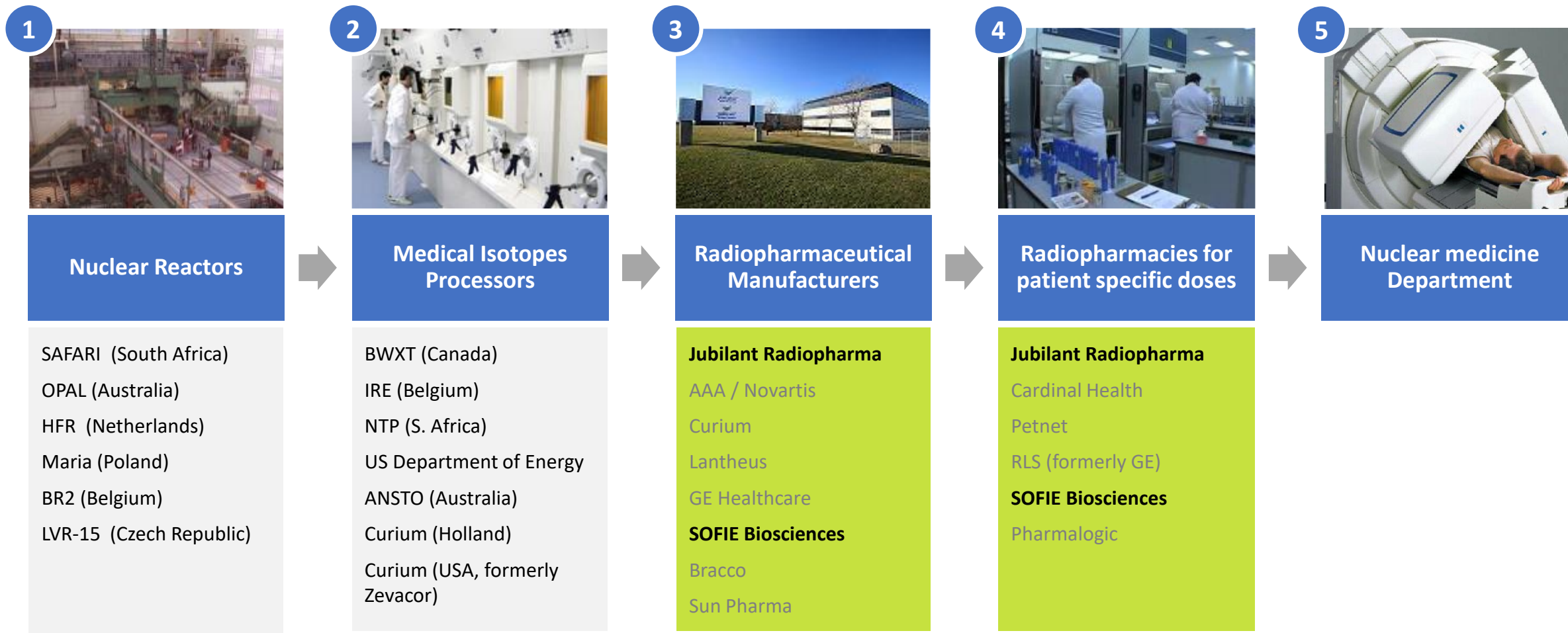
Neuroendocrine cancer imaged with ^{68}Ga -DOTATATE

Radiopharmaceutical therapies



Theragnostics is the combination of imaging and therapy with the same target but different radioisotopes

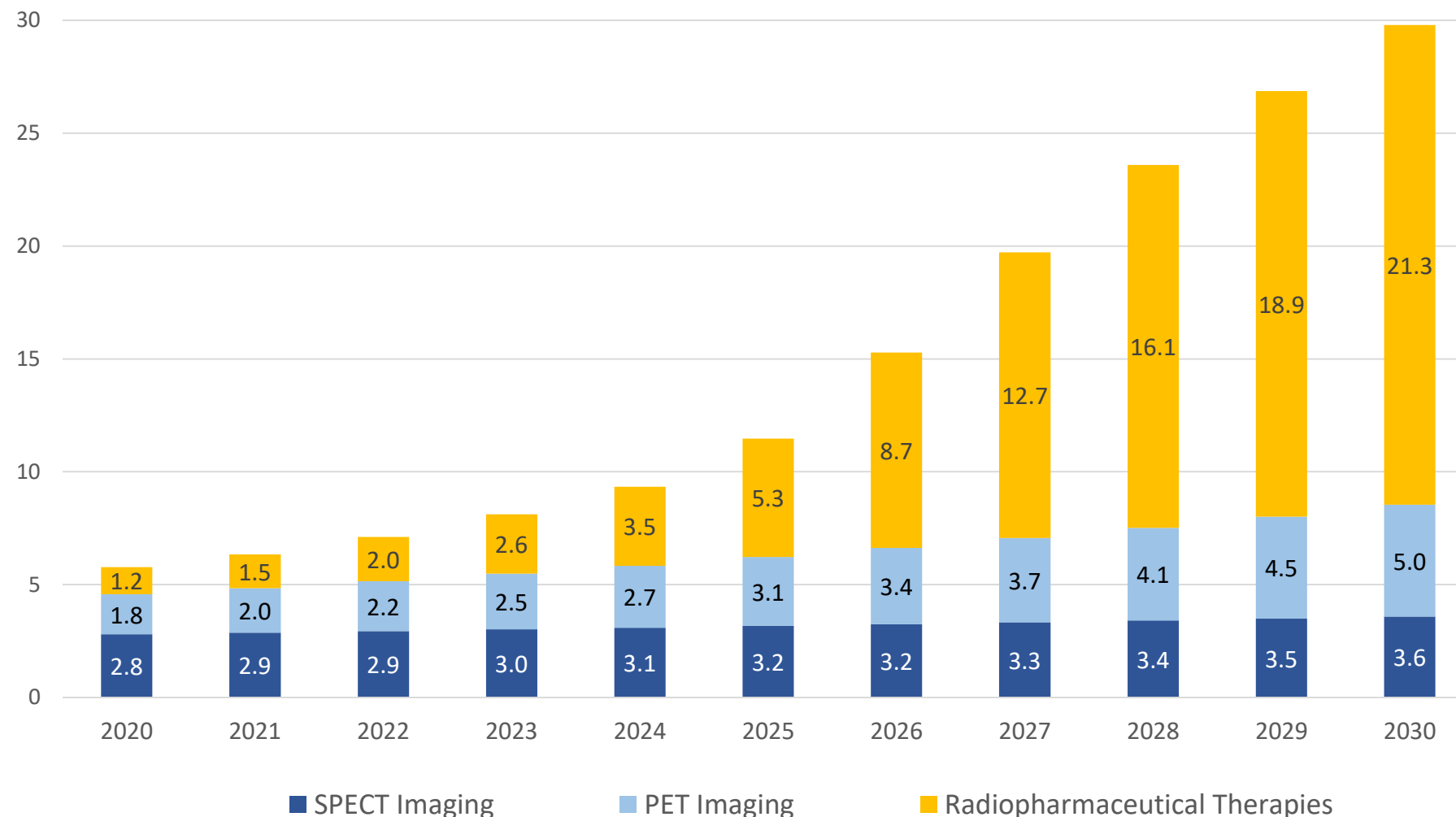
Radiopharmaceuticals – Value Chain and Competitive Landscape in the US



Radiopharmaceuticals – Global Market

- The radiopharmaceutical therapeutics market will exceed the imaging market in 2026, and grow faster in the second half of the decade
- The SPECT market will continue to grow slowly, but will remain a strong business opportunity
- PET procedures will grow driven by prostate, cardiac, amyloid imaging
- Over the coming years, hospitals and cancer centers will create radionuclide therapy programs

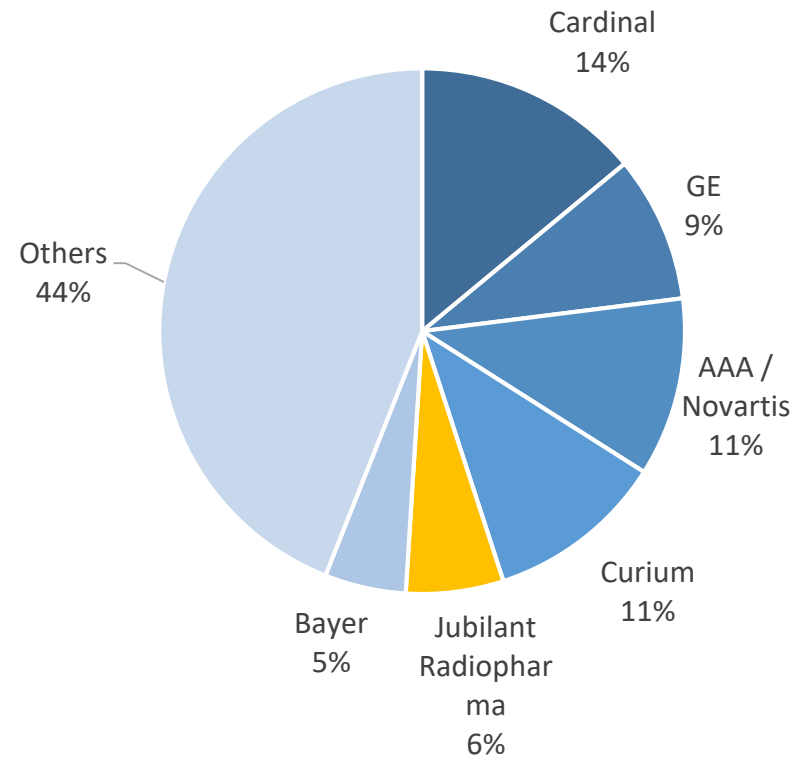
USD Bn



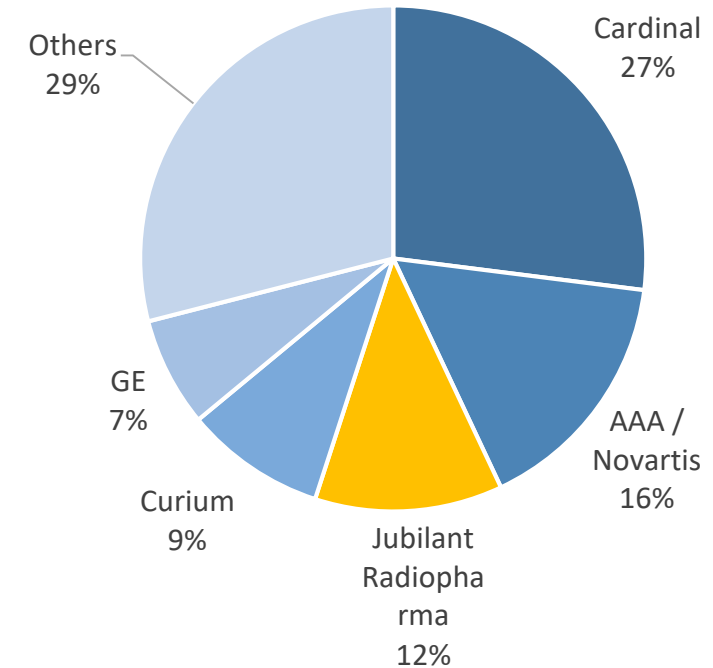
Radiopharmaceuticals – Market Share

- There are more than 80 sizeable companies in the nuclear medicine market
- There are over 100 companies developing and still not yet selling radiopharmaceuticals.
- Major players are acquiring smaller companies and investing in potential blockbuster products.
- Major changes since 2017:
 - AAA (Novartis) gained third place with Lutathera
 - Curium acquired Mallinckrodt
 - Jubilant reached fifth place with Triad Isotopes

Global Market in 2020
US\$ 5.5 Billion



USA Market in 2020
US\$ 2.7 Billion



Radiopharmaceuticals – Business Overview



- Founded in 1955, acquired by Jubilant Pharma in 2008
- Headquartered in Montreal, Canada
- Specializes in developing, manufacturing and commercializing SPECT, PET and radiopharmaceutical therapies
- 14 products approved in 22 countries
- Long-term contracts with large commercial radiopharmacies, hospitals and standalone imaging centers

Uncompromised Quality

- The essence of Jubilant Radiopharma is a **commitment to the highest quality**. Our manufacturing facilities are cGMP compliant and ISO 13485 certified.
- This **highly specialized manufacturing site** is overseen by several regulatory agencies including: The US Food and Drug Administration (FDA), Health Canada (HC), Canadian Nuclear Safety Commission (CNSC), and others



Innovation Leadership

- **#3 radiopharmaceutical manufacturer** in the US based on revenue
- **Market leader in lung functional imaging and thyroid targeted radiotherapeutics** in North America
- **Innovation leader in PET cardiac imaging** with the unique RUBY-FILL® Rb-82 Elution System
- **Avant-garde clinical program** for the treatment of **neuroblastoma**



Radiopharmaceuticals – Portfolio



Diagnostic

Brain Imaging
DTPA
Glucaptate

Thyroid Imaging
Iodine I-131

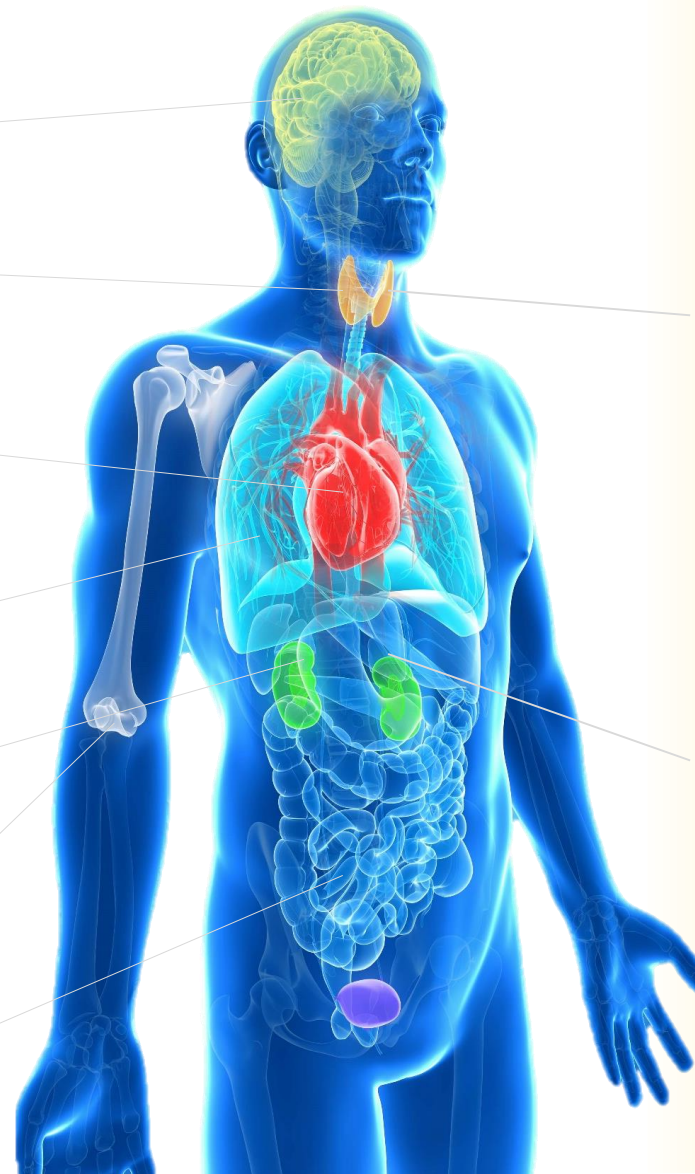
Myocardial Perfusion
Sestamibi
RUBY-FILL Rb-82
Glucaptate

Pulmonary
MAA
DTPA

Kidney Imaging
DTPA
Glucaptate

Skeletal-Bone
MDP

WBC/Infection
Exametazime



Thyroid Disorders and Cancers
Iodine I-131

Neuroblastoma
*I-131 MIBG**

Therapeutic

* I-131 MIBG for Neuroblastoma is in clinical trials and is not approved in the United States

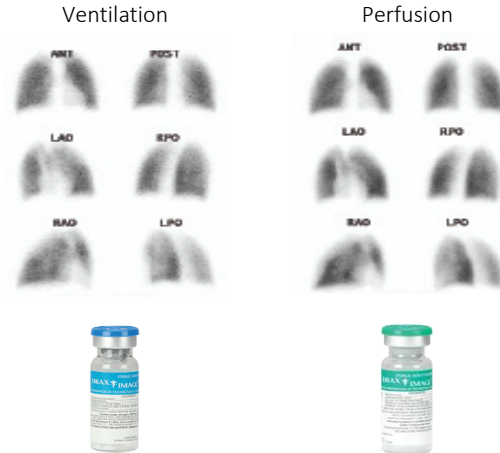
Radiopharmaceuticals – Key Products

RUBY-FILL®



- Rb-82 Chloride is used to non-invasively image and evaluate the myocardial perfusion in adult patients with suspected or existing coronary artery disease.
- The RUBY-FILL® Elution System and Rubidium Rb-82 Generator is clinically proven to deliver industry-leading efficiency with reliable consistency and dosing flexibility.^[1]

DRAXIMAGE® MAA and DTPA



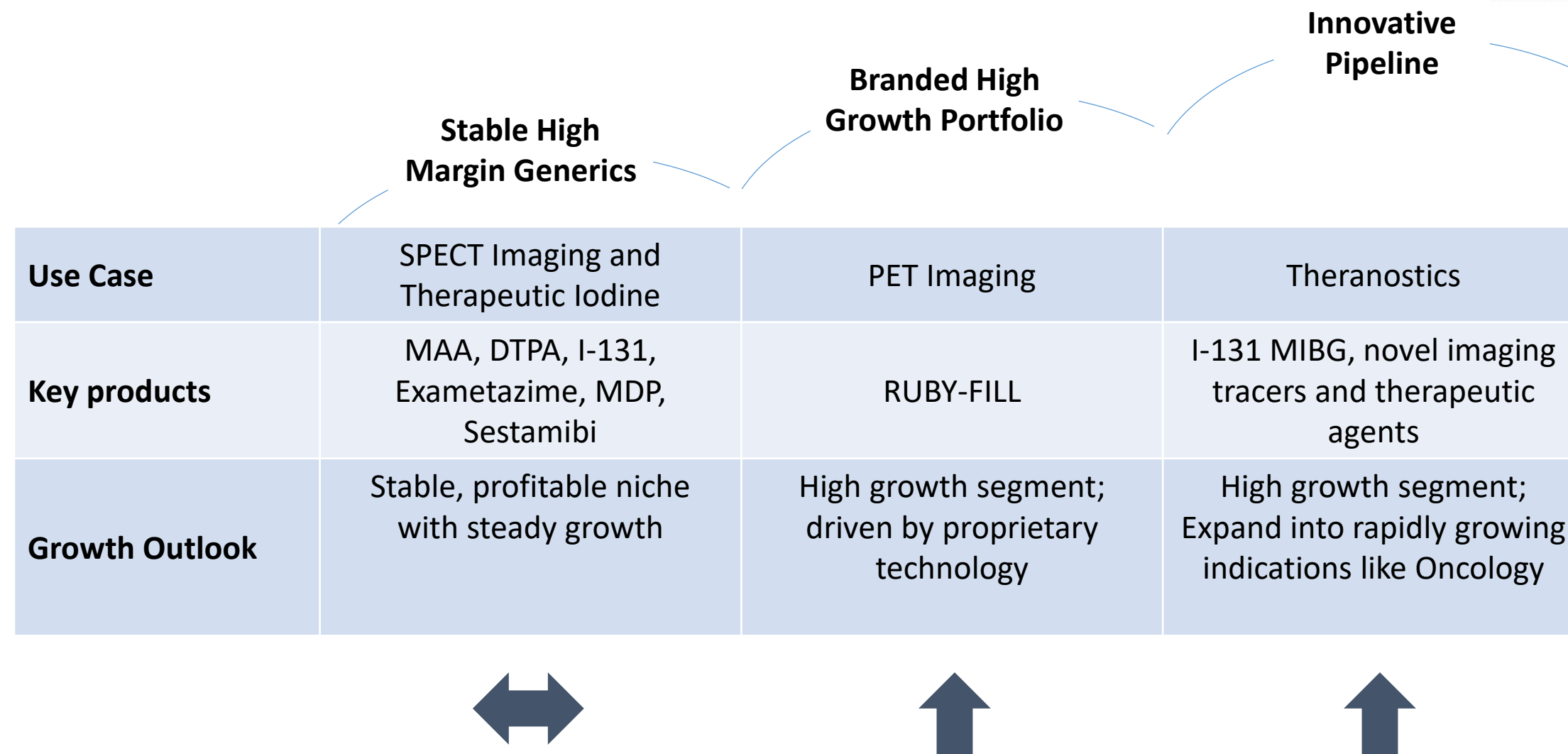
- Used primarily to diagnose pulmonary emboli (PE), a VQ scan is an imaging test that uses a ventilation (V) scan to measure air flow and a perfusion (Q) scan to see where blood flows in the lungs.
- Jubilant is the North American leader in MAA (perfusion) and DTPA (ventilation).

Theranostics Iodine-131



- Radioactive iodine, such as iodine-131, is captured by the thyroid. When it accumulates in thyroid cells, it releases radiation that can be used for diagnostic purposes that will destroy these cells.
- HICON® is a radioactive therapeutic agent indicated for the treatment of hyperthyroidism and selected cases of carcinoma of the thyroid.

Radiopharmaceuticals – Moving Further Towards Innovation



Radiopharmaceuticals – Expanding Our Playfield



2020

Served Market
US\$ 400M

2025

Market Potential
> US\$ 1.5B

2030

Market Potential
> US\$ 5B

Current Portfolio

- MAA
- DTPA
- MDP
- Sestamibi
- Exametazime
- Glucoptate
- Iodine-131
- RUBY-FILL (North America)

Planned and Under Execution

- New Generics
- RUBY-FILL (Global Market)
- I131-MIBG for neuroblastoma
- New Proprietary Tracers through partnerships
 - Prostate
 - Amyloid plaque
 - Fibroblast Activate Protein (FAP)

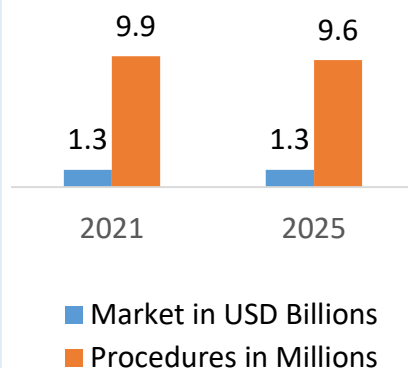
Under Development

- Proprietary radiopharmaceutical therapies

Radiopharmaceuticals – Strategy Going Forward

Expand the Core Portfolio

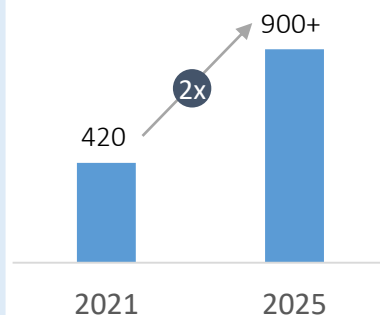
SPECT Market in the USA^[1]



- The SPECT market will remain strong in the next decade.
- Jubilant Radiopharmaceuticals has an extensive pipeline of SPECT tracers under development

Grow the Cardiac PET market

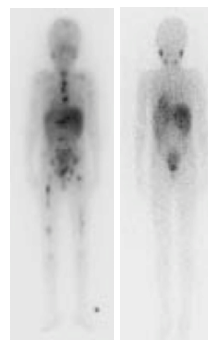
Cardiac PET Procedures in the World in Thousands^[1]



- RUBY-FILL is a market shaping product in a growing market, which is expected to double in 5 years.
- We plan to grow our market share and install RUBY-FILL elution systems in 27 countries in the same period.

I-131 MIBG^[2] for Neuroblastoma

Before After



Five-year old child with neuroblastoma stage 4 treated with I-131-mIBG^[3]

- Approximately 800 patients are diagnosed with Neuroblastoma every year, mostly children.
- Jubilant is conducting two clinical trials for I-131-MIBG, a unique approach under evaluation for first-line and later stage treatment. NDA targeted for 2023.

Strategic Partnerships



- Jubilant is a strategic partner and largest shareholder of SOFIE Biosciences.
- Jubilant Radiopharma entered into a strategic partnership with and Isotopia Molecular Imaging

Inorganic Opportunities

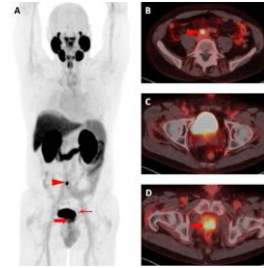


- Acquisition of companies around the world working on innovative SPECT/PET products
- In-licensing of diagnostic and therapeutic products

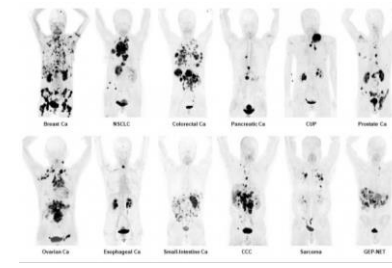
Jubilant Radiopharma acquired 25% of equity holding and became a strategic partner to SOFIE Biosciences



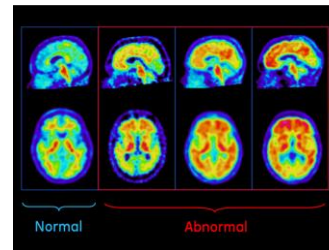
- 14 commercial radiopharmacies in the United States focused on PET tracers.
- Third largest supplier of FDG in the United States
- State-of-the-art CMO facility for radiopharmaceutical therapeutics
- Manufacturing and distribution agreement for Lantheus **PYLARIFY®** (piflufolastat F-18), a PSMA-targeted imaging agent for prostate cancer
- Exclusive manufacturing and distribution agreement (in specific geographies) for Life-Molecular **Neuraceq™**, an amyloid imaging tracer
- SOFIE owns 70% of the rights of family the FAP-targeted drugs licensed from University of Heidelberg.



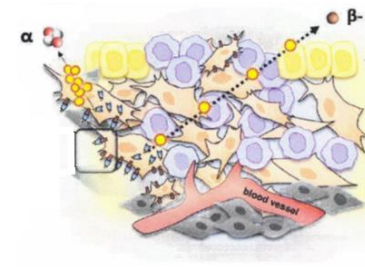
PSMA-targeted prostate imaging is the fast growing PET scan



FAPI-PET can image 90% of solid tumors with high tumor-to-background ratio*



Amyloid PET imaging is bound to grow fast with the approval of Biogen's treatment for Alzheimer's disease



FAPI Therapies (sub-licensed to Novartis) may revolutionize cancer treatment of solid tumors

Synergies with Jubilant

- Complementary portfolio of SPECT and PET imaging tracers
- One-stop shop for customers to acquire a full library of nuclear medicine products
- Optimized logistics, distribution and geographical coverage
- Joint scientific advisory boards and committees
- Shared strategic investments in new developments
- Complementary skills in R&D for the development of breakthrough therapeutic applications

Jubilant Radiopharma entered into a strategic partnership with and Isotopia Molecular Imaging



- Isotopia Molecular Imaging, based in Israel, is a leading company in the field of nuclear medicine diagnostic and therapies.
- One of the largest worldwide supplier of ^{177}Lu - Lutetium.
- **isoPROtrace** kit for labeling of PSMA-11 with Ga68 in 5 Minutes.
- FDA-certified sterile plant that manufactures a variety of nuclear medicine products to local and international markets.
- World-class multidisciplinary team consisting of nuclear pharmacists, radiochemists, nuclear engineers, and physicists.
- Collaborations with the medical community to further develop nuclear medicine imaging and therapies.



Lutetium-177 (^{177}Lu) is one of the radionuclide with highest potential in radiopharmaceutical therapies



isoPROtrace kit: convenient multi-patient preparation in 5 minutes, easy-to-integrate in any radiopharmacy or hospital.

Synergies with Jubilant

- As Part of the agreement, Jubilant will have an exclusive license to market Isotopia's Theranostic products in the U.S.
- Jubilant and Isotopia have complementary skills in R&D for the development of breakthrough therapeutic applications.
- Jubilant has strong regulatory, manufacturing and commercial capabilities in the US.

With Strategic Partners, Jubilant Radiopharma is the Most Integrated Radiopharmaceuticals Company



API Synthesis and Scale up Capabilities	√		
Analitical Method Development and Validation	√		
PET and SPECT Lyophilised Cold Kit Development	√		√
Therapeutic Cold Kit Development			√
Generator Development	√		
Ga-68 Labeling Expertise	√		√
F-18 Labeling Expertise		√	
I-131 Labeling Expertise	√	√	
Lu-177 Labeling Expertise			√
Alpha-particles labeling		√	
Nanoparticle Platform Technology	√		
Leacheable Profiling of Radiopharmaceuticals	√		
Lyophilised Kits Manufacturing	√		√
Radiopharmaceutical Therapeutics Manufacturing	√	√	
World-class Network of Scientific Advisors	√	√	√
Extensive Radiation Safety Expertise	√	√	√
Extensive Regulatory Affairs Expertise	√		
PET Manufacturing and Distribution Network		√	
SPECT Radiopharmacy Distribution Network	√		

A worker in a white protective suit and mask is operating a large industrial machine in a factory setting. The machine has a large circular opening in the foreground. The worker is wearing yellow gloves and a white mask. The background shows various industrial components and pipes.

Radiopharma –

- Radiopharmaceuticals
- Radiopharmacies

Radiopharmacies – Play a critical role in the nuclear medicine value chain



Logistics and Distribution

Radiopharmacies operate within a close distance of the healthcare provider due to short half-life

Due to just-in-time ordering radiopharmacies need to manage an intricate and agile distribution network

Compounding process is **intensive** & carried under **strict cGMP** practices



Wide product assortment

Radiopharmacies are **typically “open formulary”**, providing customers with a **full array of radiopharmaceutical options**

Players such as Cardinal, Jubilant Radiopharmacies provide **both SPECT and PET products**



Specialized service

Handling, preparation, and storage of radiopharmaceutical agents require specialized training and facilities

As a result, radiopharmacies have high operating costs due to complexity and specialized staffing



Implementation of stringent compliance standards

Overseen by several regulatory bodies and compliance required with stringent regulations, including UN Nuclear Regulatory Commission, US FDA, US Dept. of Energy, US Dept. of Transportation etc.



Wide geographical coverage

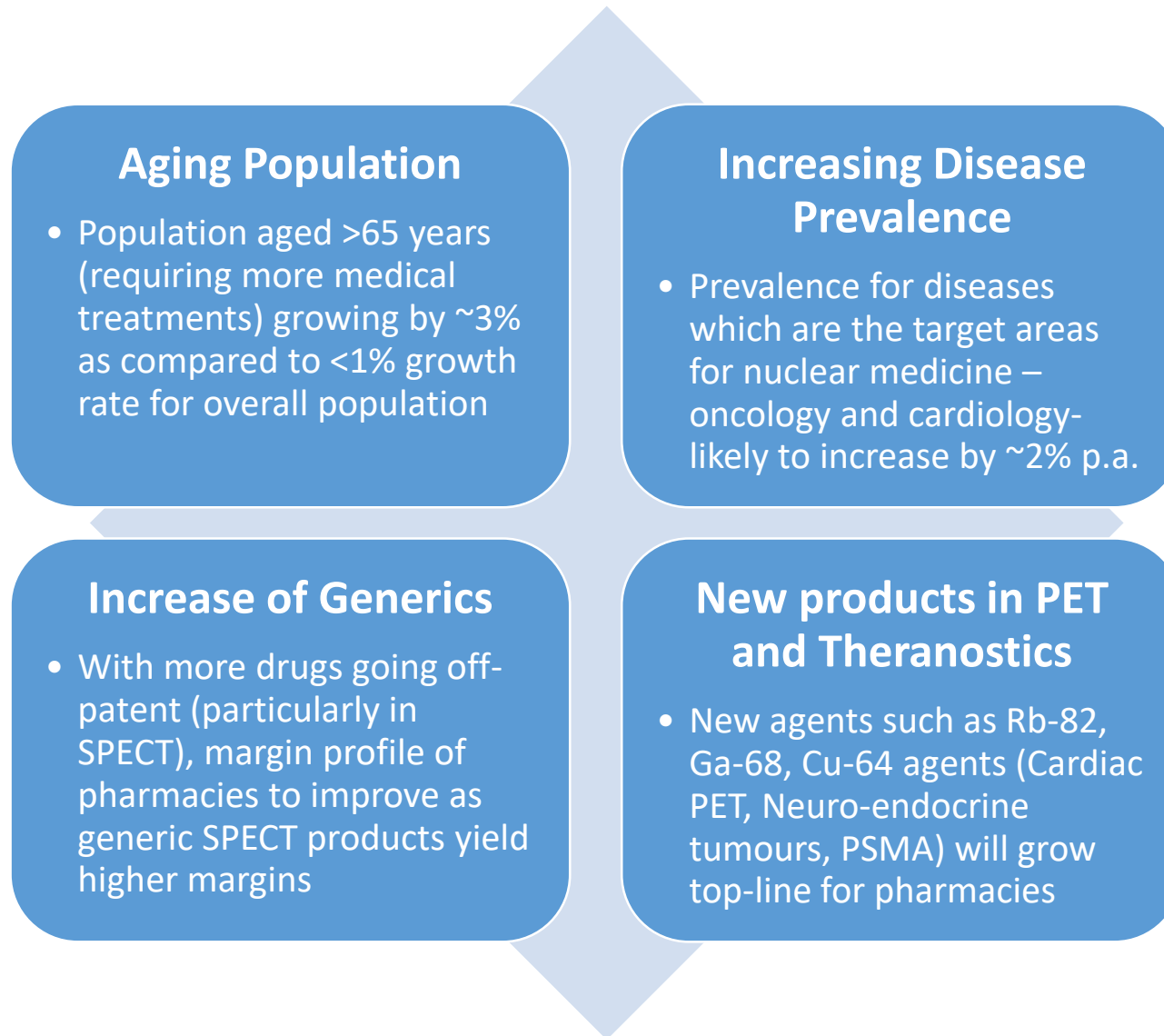
Radiopharmacies **help to efficiently cover almost all regions of the United States** (for instance, Jubilant Radiopharmacies cover ~22 states)



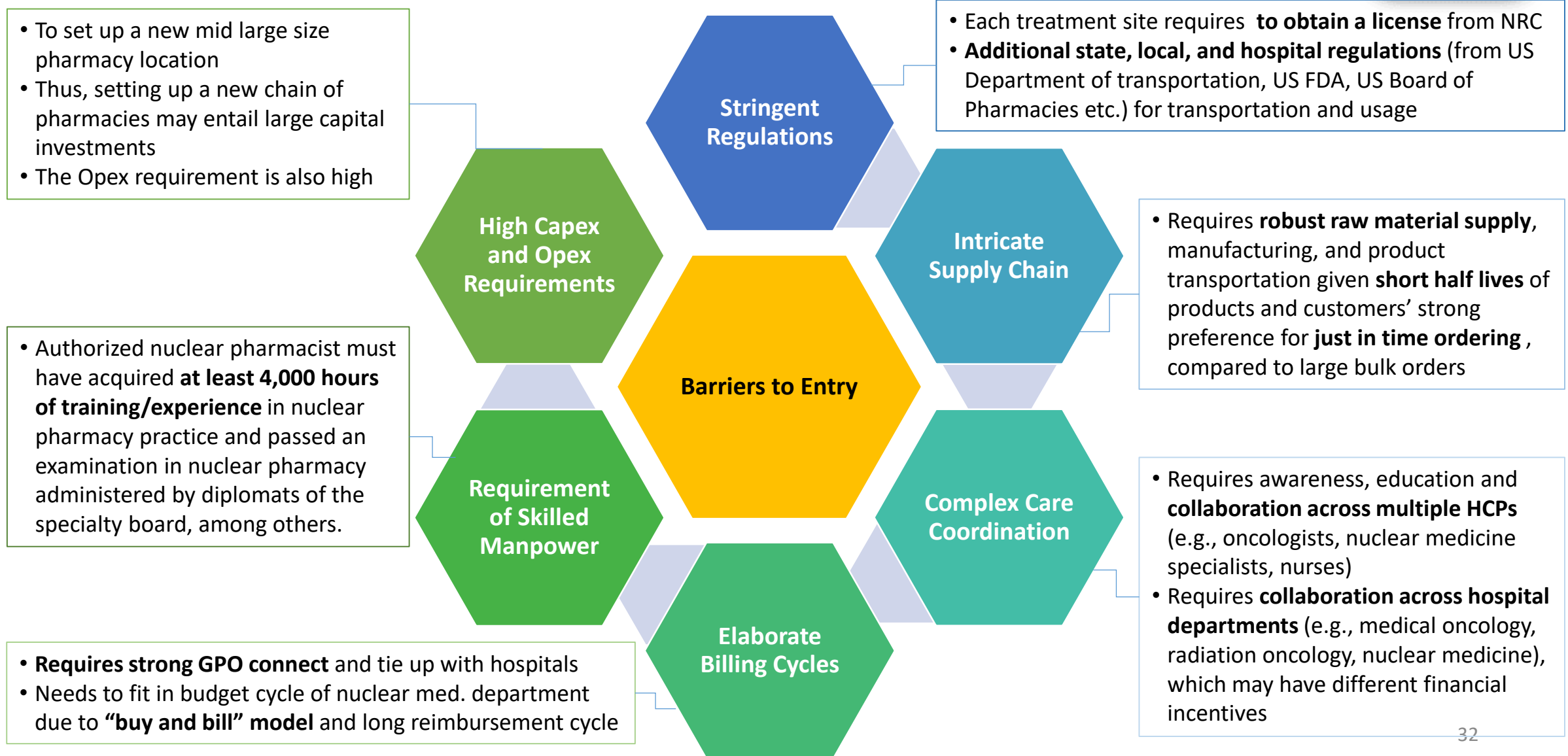
24x7 availability

Radiopharmacies are available **7 days a week with on-call staff available 24 hours a day** to fulfill just-in-time demand from customers

Radiopharmacies – Several tailwinds support market growth even with increased market competitiveness and pricing pressure





Radiopharmacies – High Barrier to Entry



Radiopharmacies – Competitive Landscape



Company Name	Number of Pharmacy in US	Presence in Number of States in US	Number of Hospitals served in US
 CardinalHealth™	129	45	2,347
 JUBILANT RADIOPHARMA	48	22	1,700 (1)
 SIEMENS Healthineers PETNET Solutions	42	29	744
 RLS GE Healthcare	31	18	532
 PharmaLogic Take The Lead / Isologic	26	12	227
 SOFIE	14	10	111

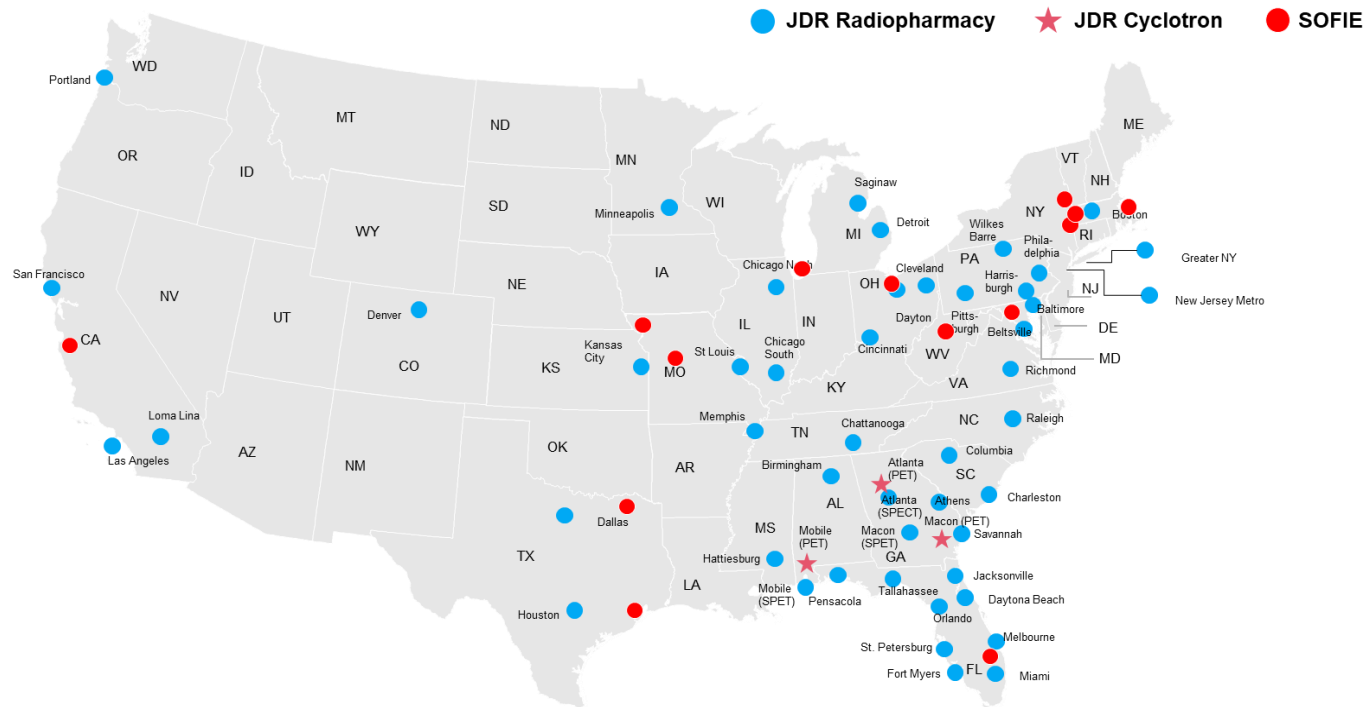
There are another 81 independent radiopharmacies across the country primarily servicing secondary markets

Source: Frost & Sullivan - Independent Market Research on the Radiopharmaceutical Industry, US Radiopharmacy Chain, US Contract Manufacturing Organisation Industry, US Allergy Immuno Therapy Industry and the Global and US Generic Pharmaceutical Industry

(1) For hospitals served within a 50 mile radius

Radiopharmacies – Business Overview

- **# 2 commercial radiopharmacy network in the US**
 - Facilities also include three operational cyclotrons
- Multi-year agreements with GPOs in place



48 SPECT radiopharmacies spread across 22 states
Access to 13 PET radiopharmacies via SOFIE



750+ employees

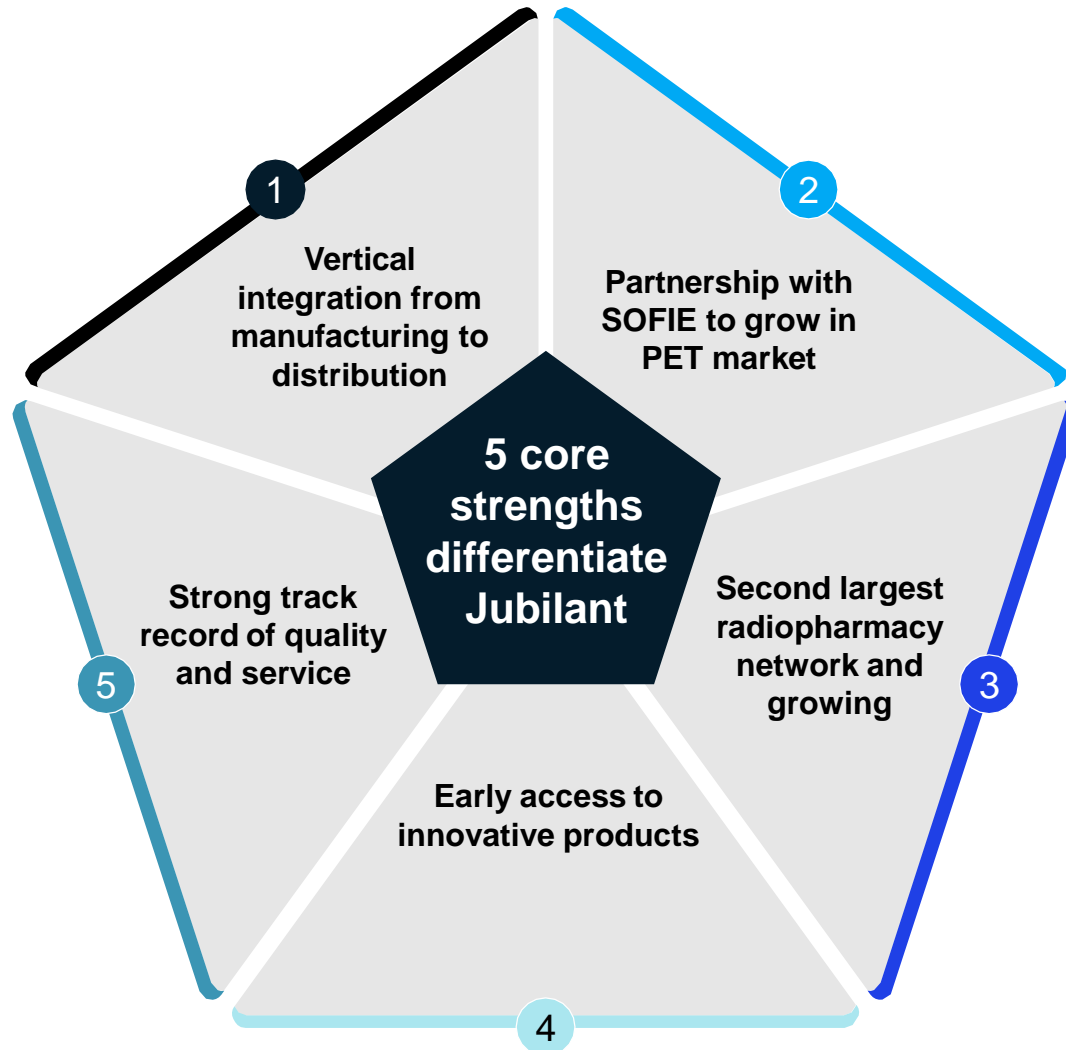


1,700+ customers across National GPOs, Regional Networks, local hospitals and physician groups



Recent strategic partnership with SOFIE provides additional upside in the high growth PET market

Radiopharmacies – Key sources of differentiation



- 1 Vertical integration with Jubilant Radiopharmaceuticals:** enables Jubilant Radiopharmacies to offer supply chain security to its customers, especially in complex products like MAA, I-131 which have faced supply shortages in the past
- 2 Strategic partnership signed with SOFIE** gives Jubilant Radiopharmacies access to 13 PET pharmacy locations, all of which are complementary to Jubilant Radiopharmacies's owned network of pharmacies – thereby accelerating growth in the PET market
- 3** With 48 owned pharmacies, **Jubilant Radiopharmacies already has the second largest footprint in the US.** With the addition of 13 PET pharmacies from SOFIE and planned expansion of >20 owned pharmacies in the next five years, Jubilant Radiopharmacies network will provide comprehensive coverage across strategic locations
- 4 Jubilant Radiopharmacies has early access to entire innovative pipeline** such as I-131 MIBG from Jubilant Radiopharmaceuticals, providing it with a strategic differentiation to customers. In addition, through cross-selling Ruby-Fill, Jubilant Radiopharmacies can engage more closely with hospitals & clinics
- 5** Jubilant Radiopharmacies has consistently **delivered and met expectations on quality of products and the level of service** (fill rates, delivery), vis-à-vis other competitors. Stringent systems in place to ensure 100% procurement from FDA approved vendors and all operations in USP compliant environment

Radiopharmacies – Strategy Going Forward

Drive Operational Excellence

At Network Level

- **Reduction in generator cost** through renegotiation of contracts
- **Optimization of cold kits COGS** through alternate sources (e.g. alternate vendors, generics sourcing)
- **Reduction in other COGS and SG&A** (e.g., fleet expenses, courier, consumables, IT)

In Pharmacy Operations

- Standardization and operating efficiencies in key processes e.g., **vial utilization, route optimization**
- Pharmacy **staffing optimization** e.g. pharmacist to technician ratio; contracted vs. in house drivers

Drive Commercial Excellence

Grow Market Share

- Target contract wins in existing footprint through **robust RFP process**
- **Strengthen value proposition** as a differentiator in the market based on bespoke customer service and customized operating model
- **Track win rates** assigned to each account being targeted

Capture PET Opportunity

- Developing a robust **go to market plan to capture growth in PET** e.g., through strategic partnerships with SOFIE, existing Cyclotrons

Drive Network Optimization & Expansion

Optimize Current Network

- **Hub spoke model** i.e. converting full service pharmacies into satellite pharmacies
- **Closure of select negative margin pharmacies** while continuing to service customers from nearby locations

Strategic Network Expansion

- Organic / inorganic **growth of radio pharmacy network in key geographies** identified based on revenue potential and specific contract opportunities

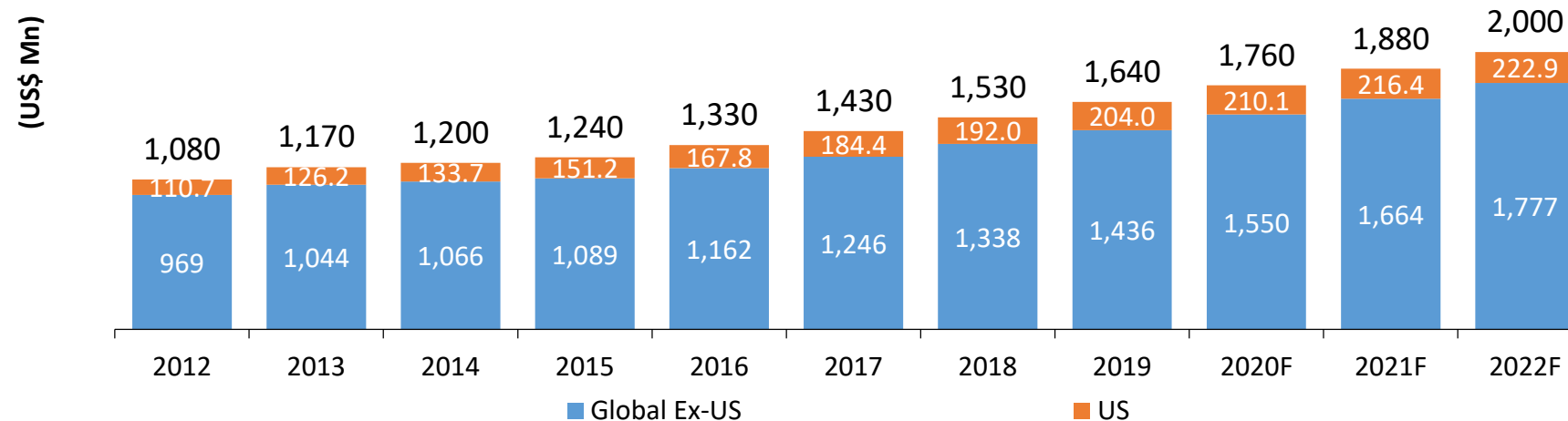
Allergy Immunotherapy (AIT)



Allergy Immunotherapy (AIT) – Industry Overview

Market Overview

Allergen Immunotherapy Market Size



- Allergy Immunotherapy (AIT) treats the underlying cause of the disease versus suppressing symptoms
- Subcutaneous Immunotherapy (“SCIT”) dominates the worldwide Allergen Immunotherapy (“AIT”) market with over 50.0% market share while Sublingual Immunotherapy (“SLIT”) via tablets and drops accounts for the rest of the market. In the US, SCIT is the preferred route of administration with over 90% of the market, while SLIT is the preferred route Ex-US.
- Venom Immunotherapy (“VIT”) is considered effective for the prevention of potential allergic reactions to hymenoptera stings contributing to significant improvements in the quality of life
- Following the exit of ALK-Albello in 2018, Jubilant HollisterStier is sole supplier of VIT in the US

Allergy Immunotherapy (AIT) – Business Overview



Products

- Product range includes portfolio of 100+ different allergenic extracts, six insect venom products and exclusive skin diagnostic testing devices
- #2 player in the allergenic SCIT extract market in the US and the sole supplier for venom immunotherapy in the US
- High barrier to entry considering that the products are branded biologicals which have regulatory approval grandfathered in

Markets and Customers

- Primary target user base of allergy therapy products are Allergists, Ear Nose & Throat Physicians, General Physicians, and select hospital-based clinics across North America
- Products sold under own brand 'HollisterStier' with significant brand loyalty going back 100 years

Sales, Distribution, Marketing

- Products are sold primarily in bulk and then mixed in the office/clinic environment
- Dedicated sales force in the United States and distributors in Europe, Canada and South Korea

Facilities

- Allergy therapy products are manufactured at our Spokane Facility, approved by the USFDA and Health Canada
- One of two suppliers with on-shore manufacturing and only manufacturer of venom in US, a potential strategic advantage

One of the leading North American immunotherapy companies, with 100 years of experience

Allergy Immunotherapy (AIT) – Key products



Allergenic Non-Venom extracts



- Jubilant has a broad & diverse portfolio across all the major allergen extracts (100+) in the unique phenol-free format with differentiated products via the Acetone Precipitated (AP) process allowing more potent product
 - AP Dog & Cat (hair & pelt)
 - 10K & 30K Mite (two differentiated strengths)
- In-house capabilities in extract production
 - Small volume sterile fills, commercial scale lyophilization
 - cGMP facility and quality system that meets FDA and ISO standards

Venom products



- More than 16 million Americans are at risk for a potentially life threatening systemic reaction to an insect sting with 230,000 hospitalized each year and 60 deaths
- Venom Immunotherapy (VIT) reduces the risk of systemic reaction for patients allergic to stinging insects — with an efficacy rating of up to 98%
- VIT is available in honey bee, white-faced hornet, yellow hornet, wasp, yellow jacket and mixed vespid
- Up to 14 different species of venom is collected
- JHS sole producer and supplier of VIT in North America

ComforTen Skin Test System



- Unique skin test devices with the only self-loading, surgical steel skin test system on the market
- Surgical steel 1.2 mm lancet tips are uniquely designed for minimal patient skin trauma
- ComforTen® cause zero reaction at the negative control site, and readings of 3mm or greater are considered positive

Allergy Immunotherapy (AIT) – Key sources of differentiation



Sole Venom Supplier

- Portfolio based sales approach across categories
- Potential to double the venom doses even with 50% share of additional untapped market
- JHS has also started BeeAware campaign for building patient awareness on VIT in the US



Biological products with hard to replicate supply chain

- Branded biologicals with regulatory approvals grandfathered in
- Raw materials are natural extracts with scare supply and specialized sourcing
- Made to Stock mindset, with >90% OTIF



On-shore manufacturing

- Only onsite USFDA approved venom manufacturer
- Strong quality track record; plan to add another fill and finish line by FY24
- New capacity addition to allow for 100% increase in headroom growth



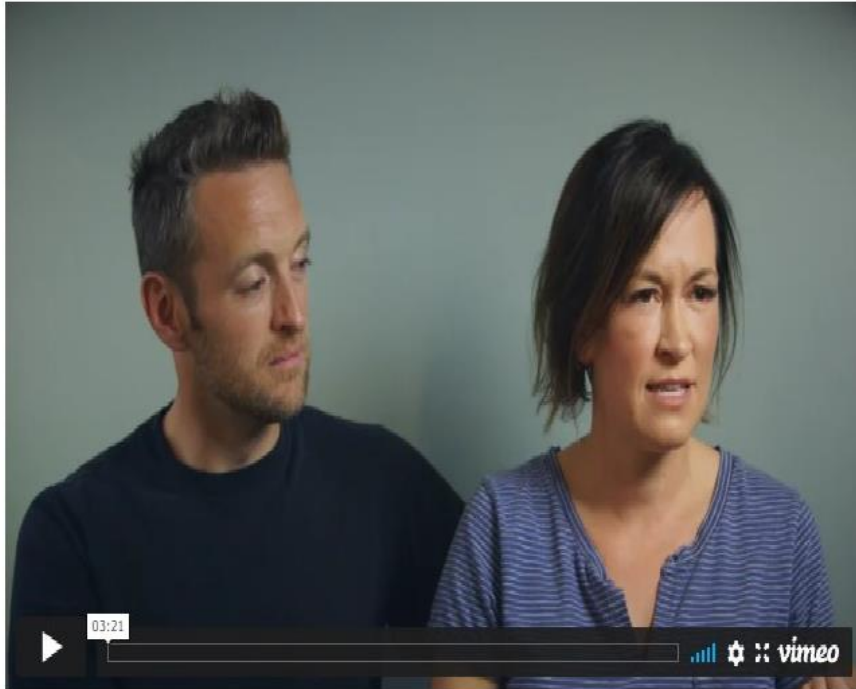
Branded and Differentiated Portfolio

- Over 100 phenol free products promoted through 18 dedicated front line field force representatives
- AP Dog (30x more potent than competition) and 30k Mite (single dose usage vs multiple doses) offer potential for premium pricing
- Pipeline products such as UF Dog, and 30K cat add to the differentiation

Allergy Immunotherapy (AIT) – BeeAware content



Hear a family's success story.



Learn how an avid gardener continued her passion with immunotherapy.



Katherine K. Schlosser is an author and lecturer on native plants and herbs. Despite her allergy to honeybees, wasps, hornets, and yellow jackets, she spends most of her


9:40 beeawareallergy.com

BeeAware

Bee Sting Allergies Are Serious

Find a local specialist

SEARCH NOW



16M

Americans Are

living with a potentially life-threatening bee sting allergy.¹

220K

ER Visits

occur each year for bee sting allergy-related anaphylaxis.²

BeeAware

Stinging Insects Bee Stings Resources Medical Professionals **FIND A PROVIDER**

Home > Find a Provider

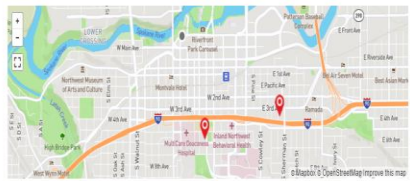
Find a Provider

Don't wait for an emergency. Prevent it.

Contacting a medical provider is one of the first steps toward prevention! Use our physician locator to find a provider who can talk through your testing and treatment options.

County: Under States City & State OR Zip Code: Spokane, WA Radius: 5 mi **SEARCH**

2 RESULTS FOUND



Spokane Allergy Asthma Clinic
508 W 6th Ave, Ste 700
Spokane, WA 99204
509-747-1624
[Website](#) [Business Hours](#) [Open Now](#) [More Info](#) [Directions](#) 0.83 mi

Spokane Dermatology
124 S Sherman St
Spokane, WA 99202
509-343-3710
[Website](#) [More Info](#) [Directions](#) 1.1 mi

Showing Page 1 of 1

3 TIPS FOR CALLING A NEW MEDICAL PROVIDER

Don't put off contacting a physician because calling feels overwhelming. Here are three simple tips to make this call an easy one.

1. Grab Your Insurance Card

Before calling, make sure to have your insurance card in reach. The provider's office can verify if they are in-network and any copays you may have.

2. Write Down Your Questions

It is common to forget your questions once you're on the phone. Take a couple of minutes to jot them down. Leave some space between each question so you can write down the answers for safekeeping.

3. Open Your Calendar

If you decide to schedule an appointment, you will need to check your calendar. Opening it before calling will save you time and stress. You've got this! Contacting a provider about bee sting allergies is a significant first step toward preventing an emergency.

Expand For References

Allergy Immunotherapy (AIT) – Strategy Going Forward



Leverage Existing Capabilities

- Grow new, differentiated products and expand capacities in **non-venom extracts** and **venom products**
- **Expand non-venom extracts** and **venom volumes** within the US market (new customers & patients)
- Building awareness around VIT through the **BeeAware patient program** to increase diagnosis and treatment to double venom doses from 500K to 1Mn in the US
- **Dedicated sales force** in US and distributors in Europe, Canada and South Korea
- Leverage existing **HollisterStier brand equity** to build Customer loyalty

Enhance US Footprint & Portfolio

- Change Customer mindset from “Made to Sell” to “**Made to Stock**”
- Drive growth and profitability through strong customer commitment to be **partner of choice** in the US allergy market
- Enhance sales process with **Digital Capabilities** (Field & Customer engagement)
- Utilize digital technology to **educate the public** on allergy immunotherapy as a treatment option
- **Expanding capacity** by installing new venom line by FY24 & upgrade existing non-venom manufacturing lines & processes

Expand Target Markets & Portfolio

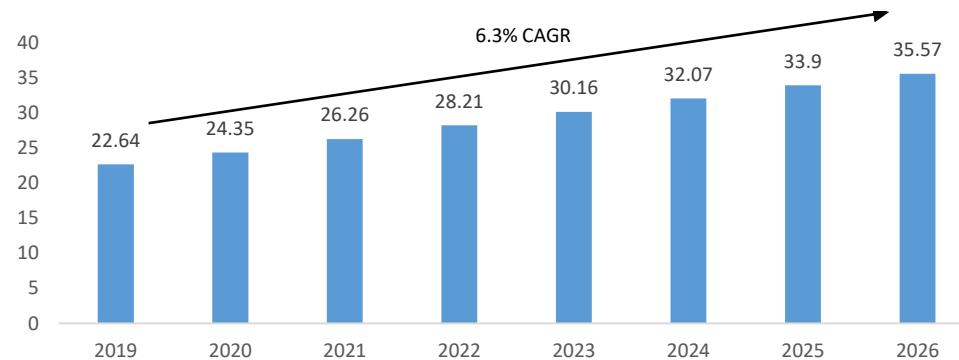
- Expand product portfolio through launch of **new products** based on ultrafiltration process (UF Dog) or process improvements with more potent offering (30K cat)
- Entered into partnerships to further **deepen the penetration in Canada and Europe**, specifically France and Germany
- Expand Ex-US footprint into **EU, LATAM & Asia** with specific focus on **Ex-US Venom** market opportunity to increase venom doses from 300K to 1Mn doses Ex-US
- Subject to completion of relevant USFDA approvals, register venom products for use in animals

Contract Manufacturing of Sterile Injectables and Non-Sterile Products (CMO)



CMO – Industry Overview

Global Pharmaceutical CMO Industry Size (\$Bn)



- Global pharma CMO market has grown and is expected to grow at 6%+ over the next few years; COVID projections will add need for another 1-2 billion vials per year taking the growth to double digits assuming 50% of this flows to CMOs
- Injectable market to drive growth and expected to grow @over 8% pre-covid; Ophthalmic at around 5%
- Sterile injectable demand continues to be strong on back of:
 - Rise in demand from new launches including COVID; over 70% of new molecules are small molecules that Jubilant can handle; Significant demand for COVID related therapies and vaccines
 - Preference for onshore manufacturers with a good quality track record
- Ophthalmic demand continues to be strong on back of:
 - Ageing population
 - Ability to handle preservative free ; Europe is taking lead in preservative free; demand in US to grow 3 times faster than Europe over the next 5 years; could be premium pricing basis our pipeline

Key Trends and Growth Drivers

Outsourcing relationships are now much more strategic

Consolidation in injectable CDMO Space because of increasing acquisitions leading to scale benefits

Shortage of Injectable Drugs and injectable capacity

Vendor Consolidation; Discussions suggest a 50% reduction in supplier base – can lead to RM/PM pricing pressure

Technical Expertise For Sterile Injectable Drugs

CMO – Business Overview



Overview

- Sterile injectables accounts for 80% CMO revenue while non-sterile products account for the balance 20% CMO revenue
- Can handle vial ranges from 2ml to 100ml and batch sizes ranging up to 2,000 liters
- Suitable for clinical trials as well as large-scale commercial requirements
- Robust order book with strong visibility to revenues going forward
- Serve 7 out of the top 20 pharmaceutical companies globally based on revenue
- Deep and long-term relationships with our customers – each of our top 10 customers with us for 5+ years, of which 6 have been customers for 10 years
- Manufacturing facilities include:
 - Spokane, Washington, US – delivery of clinical and commercial fill and finish services for sterile parenteral pharmaceuticals, utilizing both liquid and lyophilization capabilities
 - Montreal, Canada – multi-dosage form capabilities ranging from sterile parenteral (vial and ampoule liquid and lyophilization), to sterile and non-sterile semisolid manufacturing of OCL, ophthalmic
- Strong inspection history – passed USFDA, EMEA, Russia, Korea, Japan, Anvisa
- US\$ 92 Mn investment to expand sterile injectable manufacturing capacity by 50% at Spokane that will be commercially operational by the end CY24; Peak potential annual revenue from investment at c. US\$90 Mn
- New 200 bottles a minute ophthalmic line to be operational next year; capable to handle preservative free drugs; Peak revenue from investment @\$30 million

CMO Services across product segments

Full suite of services to our customers including supply chain support, lab testing services, regulatory submission support, manufacturing process refinement and project management

Sterile Injectables

- Vial and ampoule liquid fills
- Freeze-dried (lyophilized) injectables
- Biologics
- Suspensions
- Water for injection diluents
- Sterile ointment creams and liquids (growing presence in topical and ophthalmic areas)

Non-sterile Products

- Semi-solid dosage formulations, including antibiotic ointments
- Dermatological cream and liquids (syrops and suspensions)

CMO – Strategy Going Forward



Enhance and Expand Capacity to expand margins

Unlock Existing Capacity

- Business Excellence initiatives to increase productivity

New Capacity Addition (other than previously mentioned)

- High Speed isolator line at Spokane doubling the current capacity
- Expansion of Montreal facility (under evaluation) to triple the capacity - Sterile fill & finish capacity in 4 years having peak potential revenue of \$60 Mn and new Flex line with PFS in 2 years with peak revenue of \$20 Mn
- Additional ophthalmic line being evaluated in Montreal with peak revenue of \$30 Mn

Margin Expansion

- Leveraging existing assets expansion in margins from expansion of plant

Achieve Operational Efficiencies

- Continue to build on **First Time Right (FTR)** customer service
- **Beat the already meeting industry standards** on discarded batches; focus on **minimum deviations** per batch
- **Increase product filling yields** and reduce time cycle between product releases
- Leverage existing setup (e.g., land, civil construction, utility, labs, warehouses) to gain **higher capital efficiency**

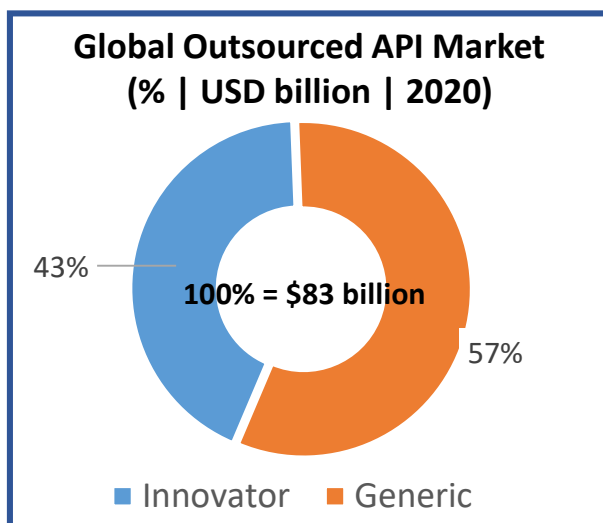
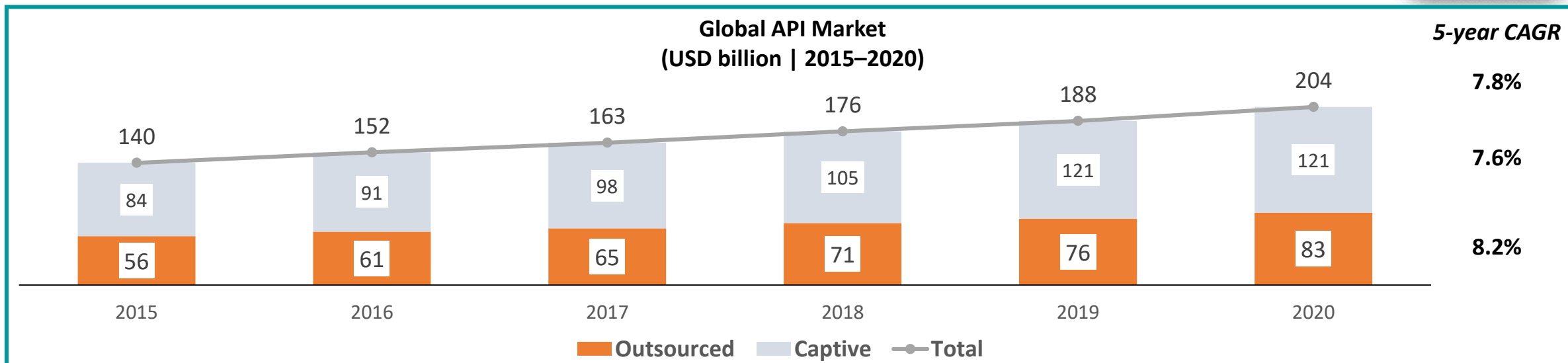
New Customer Targets

- **New customer targets** for sterile injectables, ophthalmic, semi-solids and non-sterile liquids given customer preference for on-shore manufacturing
- Evaluate opportunities for **new product launches** of pharma players – working with them through **development phase**
- Focus on **long term high value** contracts
- Significant addition in new deals at both sites including **COVID projects, ophthalmic ointments** and other dosage forms

A photograph of a pharmaceutical worker in a cleanroom. The worker is wearing a white protective suit, a face shield, and yellow gloves. They are standing next to a large, circular, stainless steel piece of equipment, possibly a tablet press or a mixing bowl. The background shows other industrial equipment and a clean, well-lit environment. The text "Active Pharmaceutical Ingredients (APIs)" is overlaid in the center of the image.

Active Pharmaceutical Ingredients (APIs)

API – Global Market Overview



Key Takeaways

- The **global API market** stood at ~\$204 billion in 2020, growing at ~7.8% CAGR over 2015–2020; the market is expected to post similar growth over the next 5 years
- The **outsourced API market** is worth at \$83 billion (as of 2020), posting a growth of ~8.2% CAGR
- As of 2020, **share of generics stood at 57% (\$47.3 billion)**; growth in the generics segment is expected to be driven by increasing healthcare costs across developed countries

API – Business Overview



Highlights

- **~60% API sales** are to regulated markets, resulting in **high customer retention levels**
- **75–80% sales to third-party customers** and balance to internal generics business
- **~80% of the commercialized portfolio** is in lifestyle-disease-related therapeutic areas such as CVS, CNS, Pain Management, anti-infective, anti-depressants and non-communicable diseases
- Focus on **top players in select geographies** and **product-level differentiation**
- API facility at Nanjangud, Karnataka (with USFDA, PMDA Japan, KFDA Korea, COFEPRIS Mexico and Brazil ANVISA certifications)
- **Global leadership in several APIs**, led by:
 - Long-term association with leading formulators
 - Economies of scale and sourcing efficiencies (e.g., Carbamazepine)
 - Vertical integration (e.g., Pyridine chemistry for Donepezil Form I)
- **One of the major global suppliers** for several key API products¹, with >10% market share in various APIs

Top Products¹

Product	Jubilant's Market Share (FY2020) ¹
Pinaverium	50% - 70%
Risperidone	20%- 30%
Aprepitant	20%- 30%
Oxcarbazepine	20%- 30%
Meclizine	20%- 30%
Donepezil	20%- 30%
Carbamazepine	10%-20%
Olanzapine	10%-20%

API Business – Key Sources of Differentiation



Among global leaders in several products (e.g., Carbamazepine, Oxcarbazepine, Pinaverium Bromide) **complemented by diversified bets** with strategic share across multiple products (e.g., Valsartan, Azithromycin, Irbesartan, Lamotrigine)



Strong R&D capabilities leading to an **advanced stage pipeline** (~20 DMFs filed for launch in next 5 years) and development of products involving **complex chemistry** (e.g., chiral separation for Olanzapine, nitrosamine impurities control for Sartans etc.)



Long term partnerships with regional champions and global leaders across its top 10 customers accounting for ~36% of third party sales



Targeted cost reduction (process and yield improvements) and **capacity debottlenecking** efforts in the last 2-3 years leading to an improved cost position across existing products (e.g., Galantamine, Oxcarbazepine, Valsartan) and pipeline products (e.g., Vildagliptin, Sitagliptin etc.)



Synergies with the captive dosage business providing higher revenue visibility, lower threat of being substituted and an opportunity to create product platforms (e.g., Lamotrigine)

API Business – Strategy Going Forward

Achieve Sustainable Growth

- Robust **portfolio management** with differentiated strategy for key products and markets
- **New products will contribute to +20% revenue** in the next 5 years
- Solid foundation for growth via **cost leadership** and delivery excellence
- Strong mechanism to offer **competitive pricing** and optimize costs (via dedicated Cost Improvement Programs (CIPs) and vertical integration of KSMs)
- Continuous **de-risking from China** for Key Starting Materials (KSMs) by increasing domestic sourcing

Invest in Expansion and New Product Pipeline

- **Debottlenecking initiatives** underway to increase capacity from existing utilization of 80-85% - Add ~280 MT capacity in the next 5 years
- Continue to **invest in both R&D** (to build-up product pipeline) **and capacity expansion** at plants (to take advantage of pipeline opportunities)
- Develop differentiated portfolio with **focus on complex multi-stage molecules**
- **Augmenting the existing capacity** with incremental capacity of 100 MT by building a new plant - Initiated designing work in 2021 at our SEZ Bharuch

Continue to be a Preferred Supplier

- Initiatives aimed at **increasing the product range** in key markets – such as the US and Europe – and further **expanding our geographical reach** in select Emerging Markets
- Strengthen ‘alternative-to-China’ positioning in select products
- Enhance share-of-wallet for core portfolio products via **customers seeded-in** through robust business development efforts
- **Increasing share of in-house APIs to Generics** business
- Evolve further as a ‘**Customer Centric**’ organization through enhanced service delivery and deeper relationships

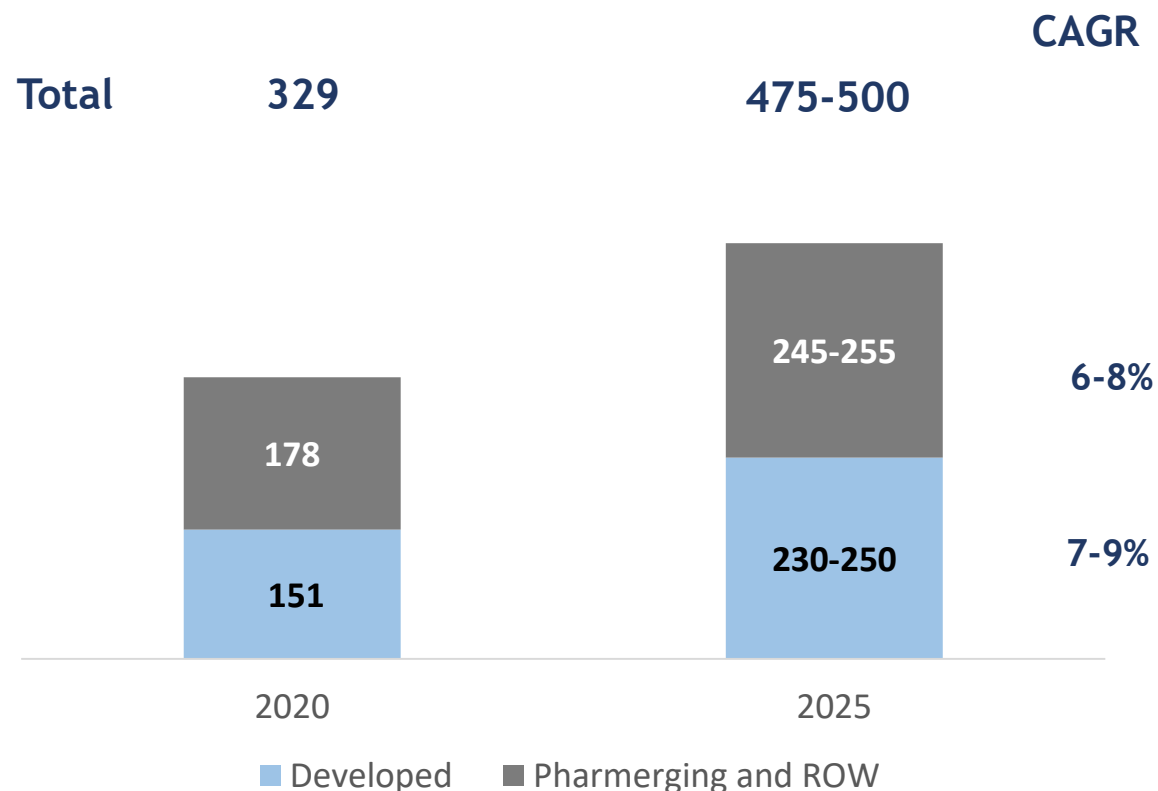
Generics (Dosage Formulations)



Generics – Global Market Overview



Global Generics Pharmaceutical Market Size by Region (Billion USD)



Global Generics Market Trends

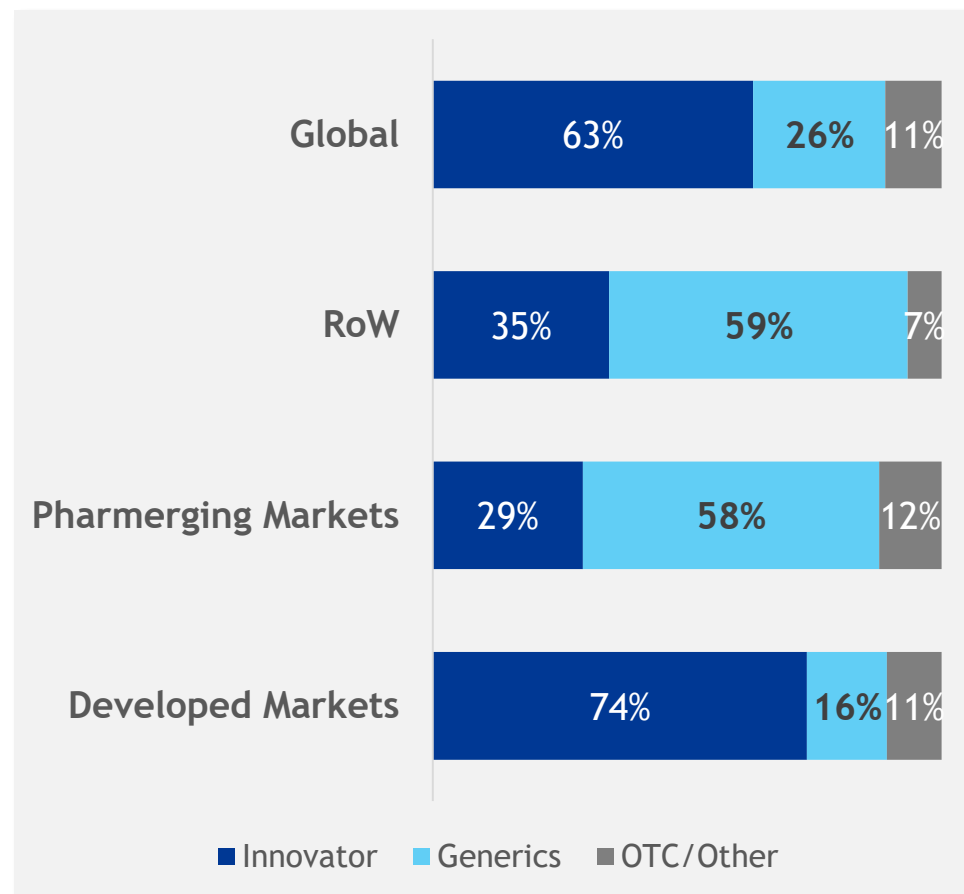
- While volume growth in generics segment will be driven by patent expiry of new molecules, pricing pressure on this segment, especially in developed markets is likely to continue
- Increase in affordability and access (especially in emerging markets) driving spend in healthcare
- Shift towards complex generics

Source: IQVIA Market Prognosis, Sep 2020; IQVIA Institute, Mar 2021

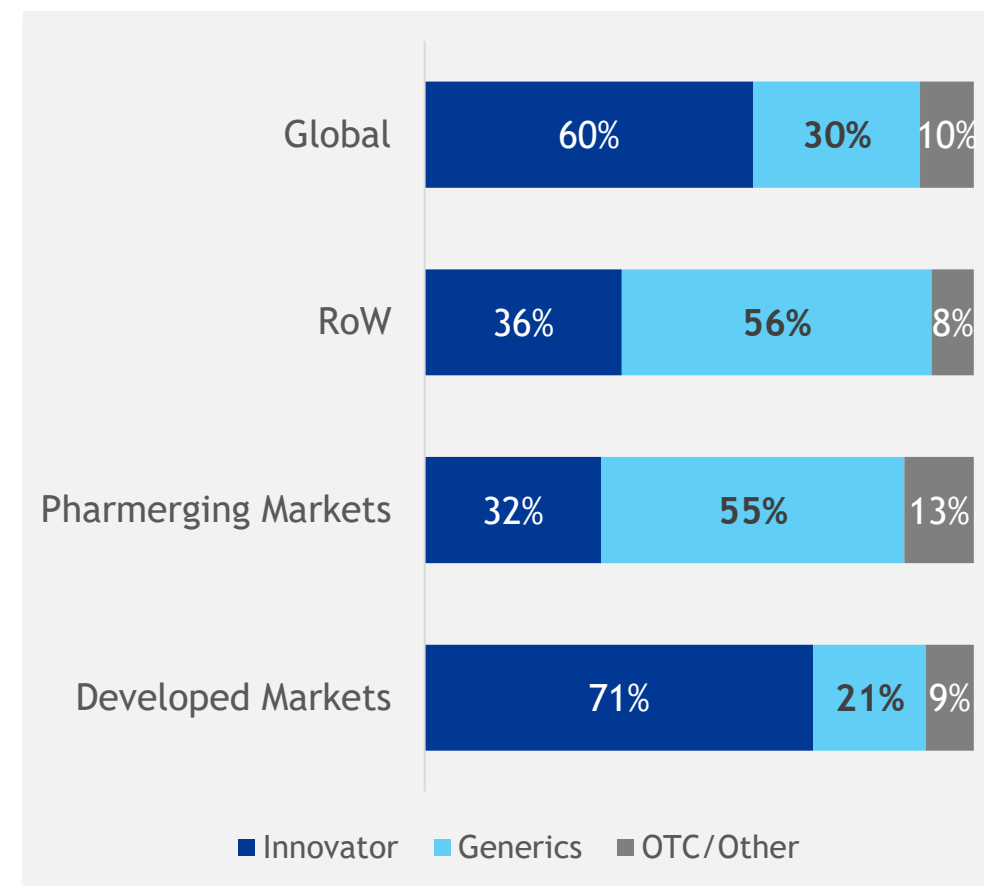
Generics – Global Market Overview



Global Pharmaceutical Spending Breakdown
by Type of Products, 2020 (%)



Global Pharmaceutical Spending Breakdown
by Type of Products, 2025 (%)

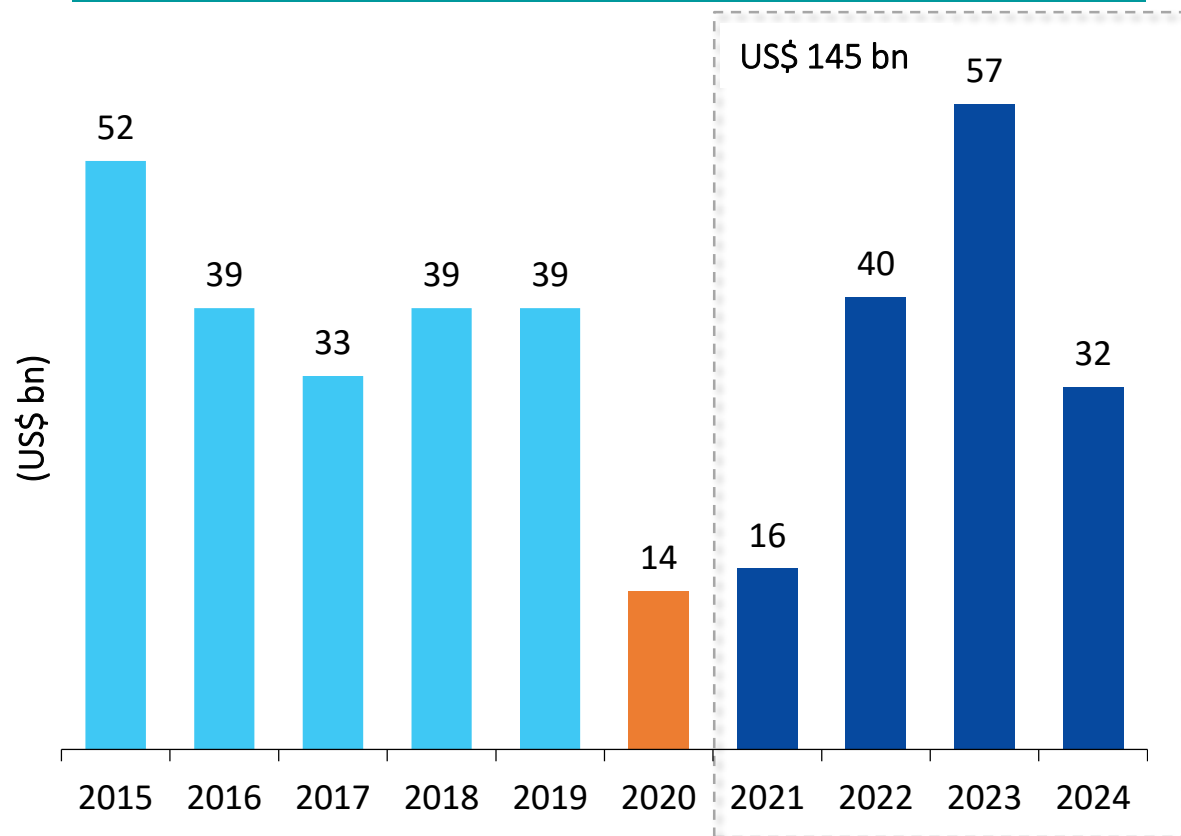


* Pharmerging markets include China, Brazil, Russia, India, Turkey, Egypt, Indonesia, Thailand, Malaysia, Philippines, Vietnam, South Africa, Nigeria, Mexico, Colombia, Saudi Arabia, and Chile

Source: IQVIA Market Prognosis, Sep 2020; IQVIA Institute, Mar 2021

Generics – Global Market Overview

Global Patent Expiry for Prescription Drugs



Source: Evaluate Pharma World Preview; Outlook to 2024

Generics Market Trends

- Increase in affordability and access (especially in emerging markets) driving spend in healthcare ; Shift towards complex generics
- U.S. generics market faced pricing headwinds from consolidated purchasing power of customers, though the downward pressure has eased over the last two years
- Governments across the world have been focused on enhancing generics usage to reduce pharmaceutical expenditure
- U.S. government focus on lowering pharmaceutical pricing has been coincident with concerns regarding quality, drug shortages and over-reliance on overseas production
 - U.S. interagency task force identified “market failures” as the cause of many product shortages, citing unsustainably low market prices in those situations
- Overseas production concerns existed prior to COVID-19, but have been significantly exacerbated by the pandemic’s impact on the global supply chain

Generics – Business Overview



Overview

- **Market leader** in the US in select products⁽¹⁾
- Capabilities in multiple dosage forms
- **Vertical integration** via our APIs business
- Supported by in-house R&D facilities for formulation development
- Broad therapeutic areas covered include Cardiovascular System (CVS), Central Nervous System (CNS) and Gastrointestinal (GI)
- Manufacturing facilities approved by US FDA, UK MHRA, ANVISA Brazil, PMDA Japan, TGA Australia and MCC South Africa
- **Roorkee site capacity expansion** completed in FY20. Salisbury site expansion is underway translating to 85% increase in capacity by early FY22
- Non-US business supplies to 45+ countries with 80% revenue coming from 10 countries and is driven via **distributor-led / B2B model** while retaining marketing authorizations in Jubilant's name in most countries
- In **UK and South Africa**, Jubilant has recently **started its own offices** as part of its long term plan of going direct to market with its own sales team; a significant part of the future growth will come from these direct to market expansion initiatives in key strategic countries
- Another focus area for Jubilant in Non-US business is branded generics market; Currently, **Jubilant branded products are sold in 8 countries** with portfolio strength of 57 products ²

Jubilant's Market Share in select products in US

Products	Market Share	No Of Competitors
Prochlorperazine	100%	0
Terazosin	96%	1
Methylprednisolone	29%	5
Risperidone	70%	1
Spironolactone	13%	4
Prednisone	24%	6
Valsartan	25%	6

(1) Source: Market share data is from IQVIA (Jan-Mar 2021)

(2) These countries included South Africa, Philippines, Singapore, Vietnam, Botswana, Uzbekistan, Hong Kong, and Malaysia

Generics – Key Sources of Differentiation



Strategic Portfolio Selection

- Enables presence in molecules with low competition



Vertical Integration

- Vertically integrated for key products such as Valsartan, Risperidone, Atorvastatin, Esomeprazole, Azithromycin, Oxcarbazepine (in-house API for 60% of revenues) providing supply security and cost advantage



Calibrated redundancy in manufacturing and flexibility in supply chain

- Helps to quickly respond to market shortages (e.g. in Valsartan managed ~50% increase in volume between Q1CY20 and Q2CY20 leveraging in-house capacity when other players faced quality issues)



Multi-agency approved facilities

- In-house manufacturing capability to support a wide array of markets and requirements e.g. USFDA, Japan PMDA, and EMEA approved facility in Roorkee



Durable B2B Customer Relationships

- 7 customers accounted for ~70% of FY20 revenue for this segment

Generics – Strategy Going Forward

Leveraging R&D Capabilities

- Enter underserved product markets through opportunity identification and rapid response, utilizing **in-house development and partnerships**
- Successful development and scale-up of differentiated opportunities, including **partnership with 3rd party development centers**
- Focus on **various delivery systems** and forms
- Ensure **robust formulations** and scale-up to support reliable supply
- Utilize existing salesforce more **efficiently** to carry more brands

Sustainable Manufacturing

- Properly **balance cost, supply reliability and speed to market** including vertical integration with in-house API capabilities
- Mitigate supplier concentration risks via **alternative sources of API**
- **File products from multiple locations** to reduce site dependency risk for high value products
- **Exploring additional manufacturing sites** through partnerships and inorganic expansion
- Ensure **sustained compliance with global regulatory standards** to enable consistent growth

Market Expansion

- Expand business into emerging markets through **on-time portfolio expansion** – Plan to launch 45 products in US and 27 products in Non-US market during FY22-FY26
- New products are expected to generate an **additional potential revenue** of more than US \$300 Mn during FY22-FY26
- **Geographical diversification**; higher focus on non-US markets to tackle price and competition challenges
- **Shift from traditional B2B model to B2C model** in key Non-US markets to leverage growth potential
- Utilize **partnerships model with CMOs/CROs** to bridge capability gaps and gain access to new dosage forms, mainly **injectable**

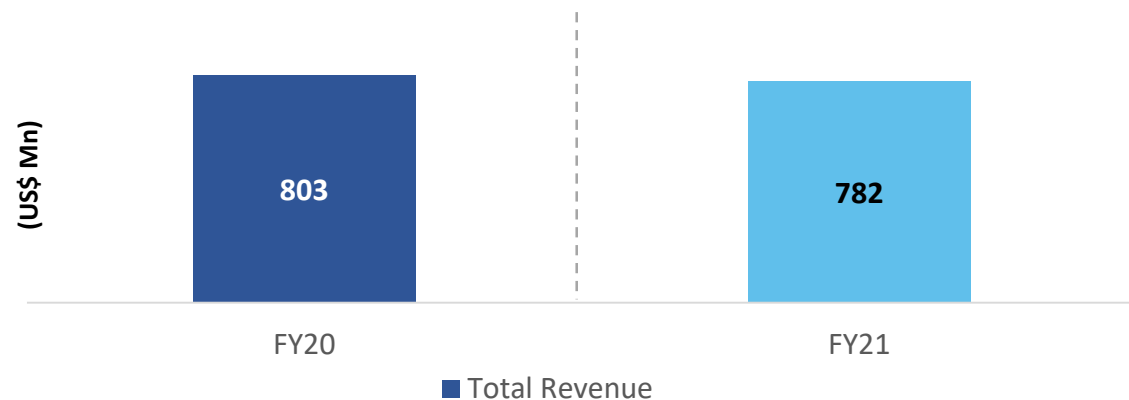
Jubilant Pharma - Financials



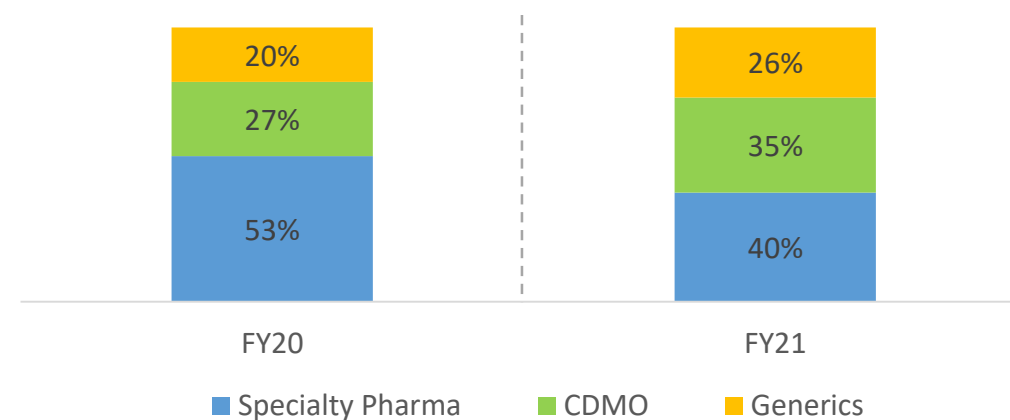
Financial Performance | P&L



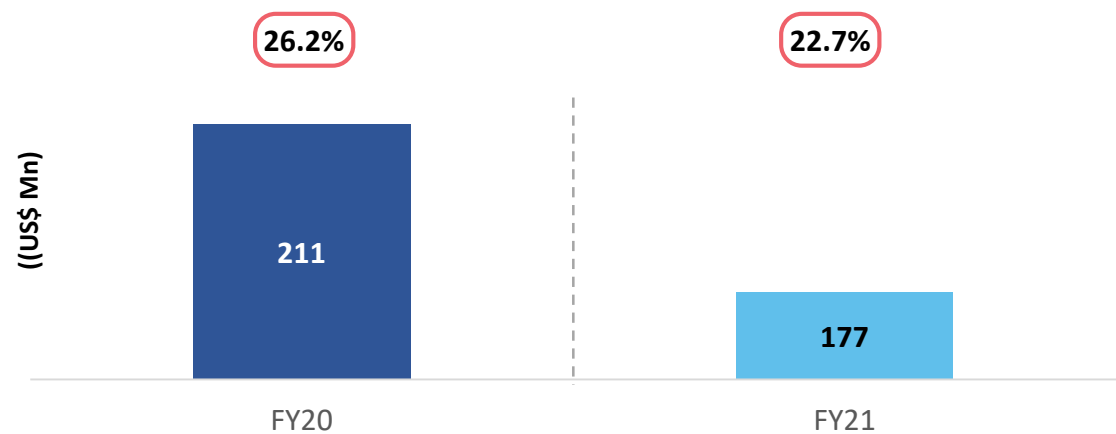
Revenue from Operations



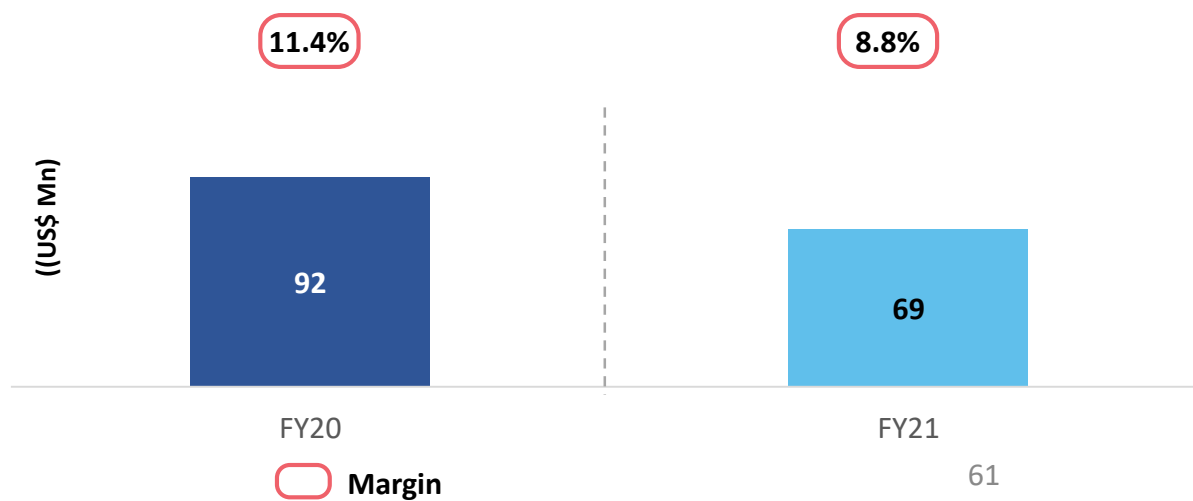
Revenue by Segment



EBITDA



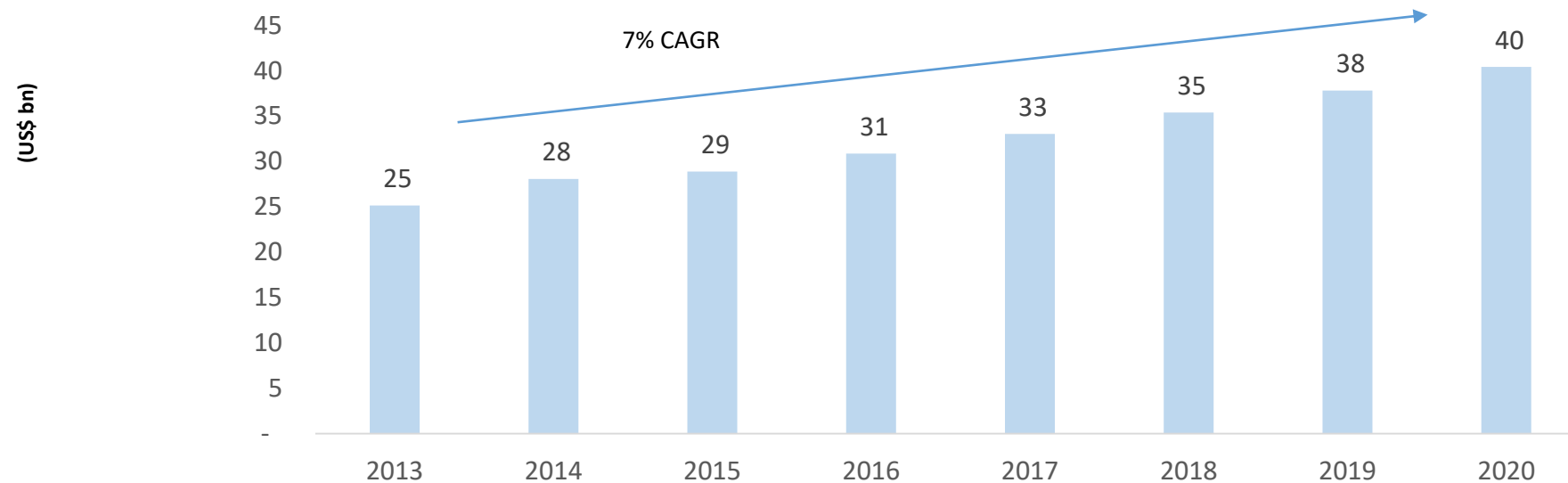
Profit after tax



A photograph of a pharmaceutical manufacturing facility. In the foreground, a large, circular stainless steel mixing tank is visible, with a rainbow-like reflection on its surface. In the background, a worker wearing a full white protective suit, a face shield, and yellow gloves is standing near a complex piece of machinery. The facility has a clean, industrial look with stainless steel surfaces and various pipes and equipment. The text "Contract Research and Development Services - Jubilant Biosys" is overlaid in the center of the image.

Contract Research and Development Services - Jubilant Biosys

Global CRO Market Size



- **Global CRO market has grown at a CAGR of 7% between 2013-20**
- **Increasing per unit R&D cost for pharma**
 - 8x increase in cost per Novel Molecular Entity from \$140m in the mid-1970s to \$1,200m early-2000s
- **Increasing outsourcing penetration driven by:**
 - Focus on core competencies
 - Emergence of “virtual” companies
 - Shift from fixed to variable cost mod

Business Overview

Overview

- Provides new Drug Discovery services to global innovators in US, EU, Japan & APAC.
- Fully integrated Drug Discovery service provider as well as functional specialist for complex chemistry, computational chemistry and scale-up up to GMP phase 1.
- Top 10 customers based on long relationship and track record of performance.
- Engaged in several risk-shared discovery projects including Sanofi and highly reputable US investment funds.
- Research facilities include:
 - Greater Noida & Noida, India – chemistry & analytical services as well as NCE scale-up and GMP for phase 1
 - Bengaluru, India – medicinal & computational chemistry, biology, DMPK/Tox. Integrated services up to IND phase.
 - TrialStat: EDC software for clinical trials
 - Digital: ML/AI pilots, data curation, Bio-informatics

Discovery Services up to IND & GMP

Full suite of services to our customers including supply chain support, lab testing services and project management

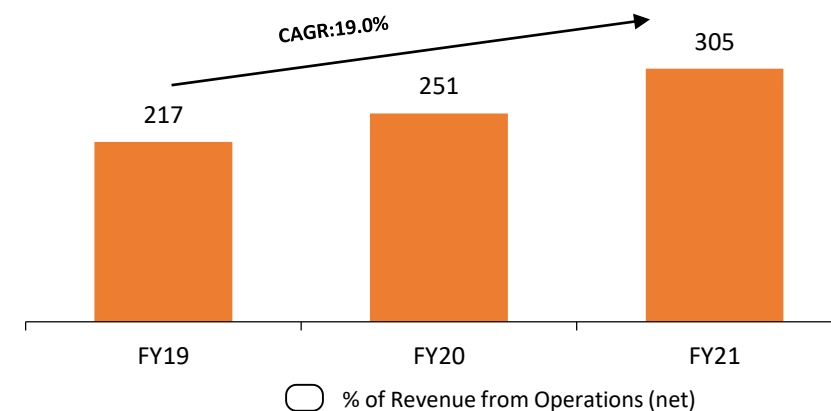
Discovery

- Computational & medicinal chemistry
- Synthetic chemistry & process R&D
- In-vivo/In vitro DMPK & Tox
- Biology & Pharmacology
- Structure Based Drug Design
- Protein X-ray crystallography
- Protein synthesis
- Deep expertise in Oncology, Immunology, Pain & Inflammation, Metabolic Disorders.

GMP

- Early process & analytical development
- GMP synthesis up to phase I from clean room (100L scale)
- TrialStat EDC software

Business Revenues



Strategy: Transformational new Site Investments will propel the business onto the stage of Global TOP Tier CRO's



1

Expand Capacity & Capability in Greater Noida & Bengaluru

New Capacity Addition

- During Q3 '21 a new chemistry R&D site will be created in Greater Noida. Capacity will be doubled.
- By H2 '23, a new site in Bengaluru is being planned which will replace our existing site and more than double capacity for growth.
- A new GMP Pilot plant is being planned for up to phase 2 supplies.
- An expanded PR&D and AR&D lab for NCE's CDMO services will be added along side.
- A new GLP TOX lab also being planned which will complete the capabilities for IND filing for an NCE.

2

Operational Efficiencies

Increase Research Delivery Efficiency

- Roll out of ELN's for 500-600 FTE's was achieved successfully.
- Project EQUIP will drive further accuracy and data integrity assurance through new robust QA systems and SOP's.
- ISO 9001 certification will be pursued for both sites by Q1'22
- Business Excellence: work processes designed for speed and high quality, fast delivery of services.
- Increase knowledge and science base through increased PhD focus.

3

New Customer Targets

Identify New Customer Targets

- New customer targets for chemistry FTE's, notably big pharma & biotech segment
- Expand into S-Korea and Australia next to Japan
- Expand biotech customer base in both US and EU.
- **Focus on long term higher value contracts**

4

ML/AI platform development along with chemistry & biology Technologies

Add Digital & Technologies

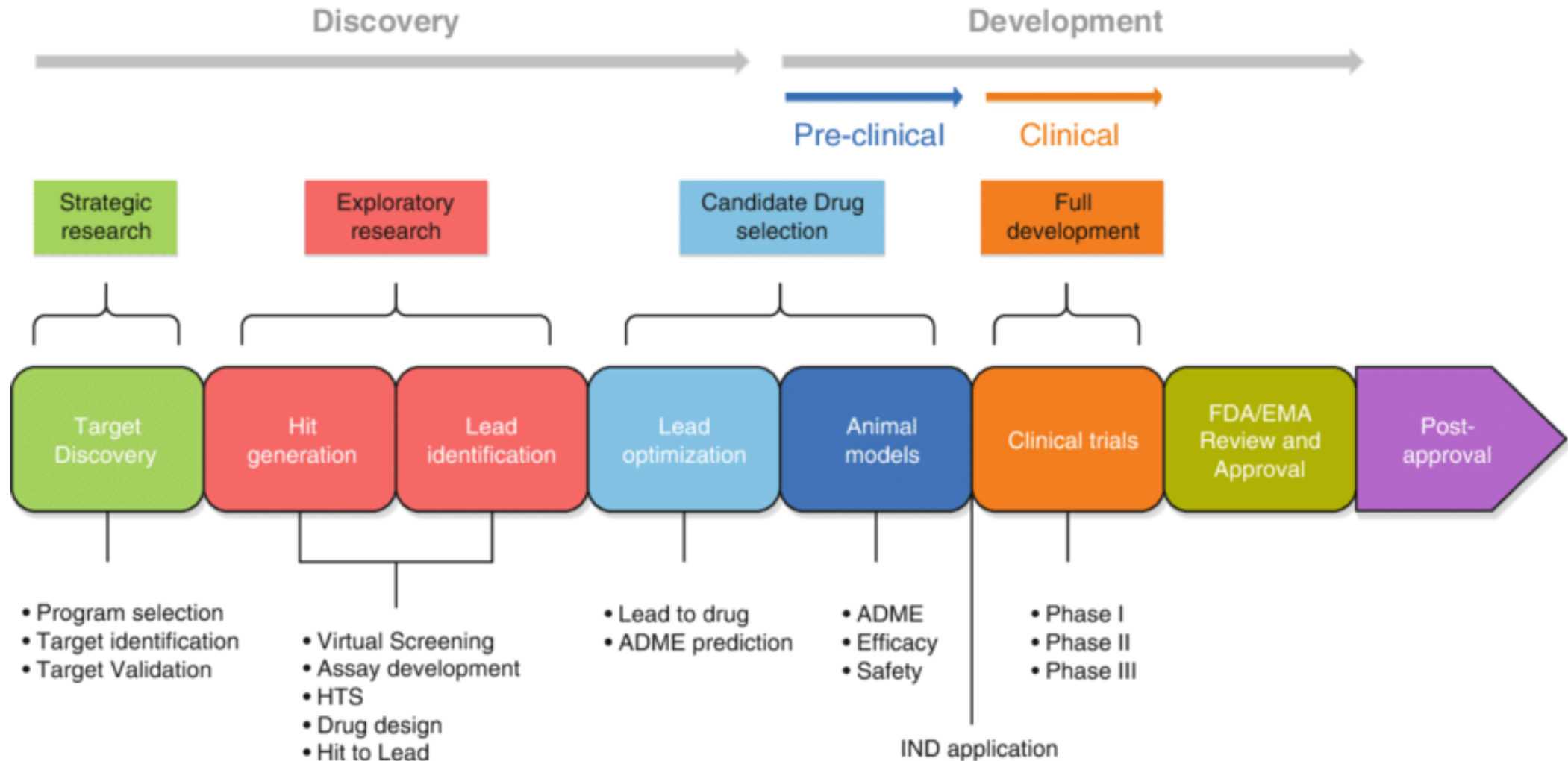
- ML projects have started to deliver proof of concept and apply to our Biosys service offering.
- Digital services including TrialStat software are now offered in conjunction with CRO services.
- Flow chemistry technology will be exploited to enable synthesis of highly complex NCE's.
- Biology knowledge will be enhanced with new state of the art instruments and capabilities for compound screening.

A photograph of a pharmaceutical manufacturing facility. In the foreground, a large, circular, stainless steel machine, likely a tablet press, is visible. In the background, a worker wearing a full white protective suit, including a hood and face shield, and yellow gloves is standing near a piece of equipment. The facility has a clean, industrial appearance with stainless steel surfaces and glass partitions. The text "Proprietary Novel Drugs - Jubilant Therapeutics" is overlaid in the center of the image.

Proprietary Novel Drugs - Jubilant Therapeutics

Drug Discovery and Development Process

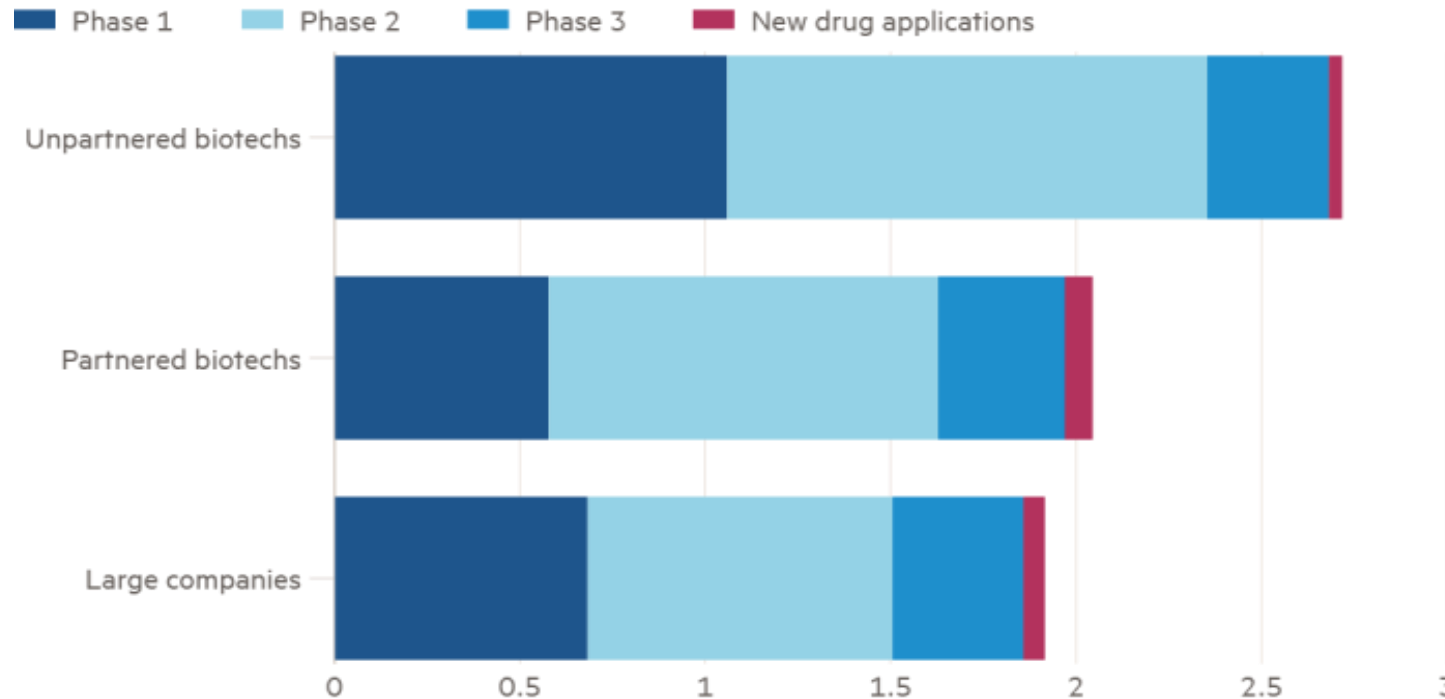
- There are several core “steps” carried out during drug discovery and development



Rise of Biotechs in New Drug pipeline

Biotech companies dominate new drug pipelines

Number of active clinical-stage drug programmes (000)



Source: BIO
© FT

- More new drugs in pipeline of biotech companies than traditional pharma MNCs
- External innovation/ partnering with biotech increasingly important for Pharma
- Over two-thirds of Big-pharma's late stage pipeline derived from external innovation/ partnering with biotech
- 36%+ total investments of Big-pharma is in biotech deals

Partnering pipeline programs with large pharma, other biotech and VCs with upfront, milestone and equity linked deals is key value unlocking opportunity for Jubilant Therapeutics

Biotech IPO Valuations have grown significantly in recent years



- There's significantly more demand for biotech IPOs today compared to few years back, as seen in IPO pricing and post money valuations
- Earlier stage companies are going public
 - Increasingly companies at preclinical to Phase 1 stages going public over the last 3 years
 - Majority of these companies have oncology and small molecule focus
 - > 50% of IPOs in 2020 & 2021 YTD have lead asset in preclinical / phase 1 stage
- **Recent Preclinical and Phase 1 stage IPO pricing**
 - Preclinical biotech IPOs pre-money range: \$499M (bottom quartile) - \$718M (top quartile)
 - Phase I stage biotech IPOs pre-money range: \$389M (bottom quartile) - \$569 (top quartile)
 - Most IPOs have prior crossover round

Similarly, Jubilant Therapeutics has an equally attractive pipeline with LSD1/HDAC6, PAD4 and PRMT5 as the lead programs with opportunity to raise capital through private placement/public markets

Jubilant Therapeutics: private biotech transitioning from preclinical to clinical stage



Business Overview

- Advancing potent and selective small molecule modulators in late preclinical development to address unmet medical needs in oncology and autoimmune diseases
- Launched in 2019 in Bedminster, NJ with discovery labs in India
- Programs incubated inside Jubilant for 3+ years prior to company launch
- Transitioning to clinical stage in 6-9 months;

Key Differentiators

- Novel, precision therapeutics against both first-in-class and validated but intractable targets in genetically-defined patient populations utilizing state-of-the-art discovery platform
- Leadership with large pharma and biotech pedigree, experienced in bringing novel compounds from discovery to the clinics
- 25+ biologists and chemists with decades of integrated drug discovery expertise
- KOLs and SAB from world class institutions such as Memorial Sloan, Francis Crick and Dana Farber

Pipeline

Asset	Indications	Next Milestone	Differentiation
Dual LSD1/HDAC6i	Hematological cancers Solid tumors	IND filing 2H 2021	First in class dual mechanism with selective inhibition of two different targets part of the CoREST complex
PRMT5i	Glioblastoma; Lymphoma	IND Filing 1H 2022	A novel brain penetrant inhibitor with differentiated binding modality
PAD4i	Autoimmune, Oncology	IND Filing 1H 2022	Unique first in class mechanism with excellent therapeutic margin and no signs of immune suppression

- Additional development program - Oral PD-L1 (oncology)
- Undisclosed discovery programs - Intractable targets in Oncology
- Past programs partnered with Frazier Healthcare and Checkpoint Therapeutics

Powerful integrated R&D platform to generate a differentiated clinical portfolio in genetically defined patient populations



SBDD¹ Platform

- Integrates computational chemistry, structural biology, SPR² screening with SAR³
- Algorithmic approach for Optimization of therapeutic index
- Systematic translational data analysis to identify novel, precision-medicine based clinical strategies
- Overall integrated approach enable faster and less costly human PoC determination

¹ Structure based drug design

² Surface Plasmon Resonance

³ Structure Activity Relationship

Dual LSD1/HDAC6

- Novel dual mechanism to address limitation of existing approaches
- Selective inhibition of two validated oncology targets leads to improved therapeutic index
- AI-enabled biomarkers for patient stratification

PRMT5

- Isoform selective blocker with enhanced brain exposure for glioblastoma and brain mets
- Differentiated binding modality

PAD4

- First in class program for autoimmune and oncology indications without immunosuppression
- Genetic data supports superior safety profile compared with SOC like TNFalpha or JAK inhibitors

Market Comps



Market potential of key indications

	Key indications	Est. Market size (7 major markets- US, 5 EU, Japan)
LSD1-HDAC6	AML	\$4.5B (in 2029)
	SCLC	\$1.8B (in 2029)
PAD4	RA	\$29 B (in 2029)
	HS	\$1.8B (in 2028)
PRMT5	GBM	\$1.4B (in 2027)
	MCL	\$1B (in 2027)

Asset-wise comparable companies

Jubilant Asset	Comparable Company	Value	Methodology
LSD1/HDAC6 inhibitor	Oryzon	\$235M	Mkt cap
	Imago	\$180M	Series C pre-money (Nov'20)
PAD4 Inhibitor	Padlock/BMS	\$150M	M&A upfront (Mar '16)
PRMT5 inhibitor	Prelude	\$1.5B	Mkt cap
	Tango	\$900M	SPAC merger (Apr'21)

- Transitioning to clinical stage in early 2022 with dual LSD1/HDAC6 inhibitor IND filing and Phase-I thereafter in subsets of AML, MPN and select solid tumors with specific gene signatures
- Next two IND filings in 1H 2022
 - Differentiated PRMT5 inhibitor with high brain exposure for glioblastoma and lymphoma
 - PAD4 inhibitor for autoimmune, oncology
- The Company is working towards creating shareholder value in this business through pharma/biotech partnerships and private / public equity raise during coming 18-24 months

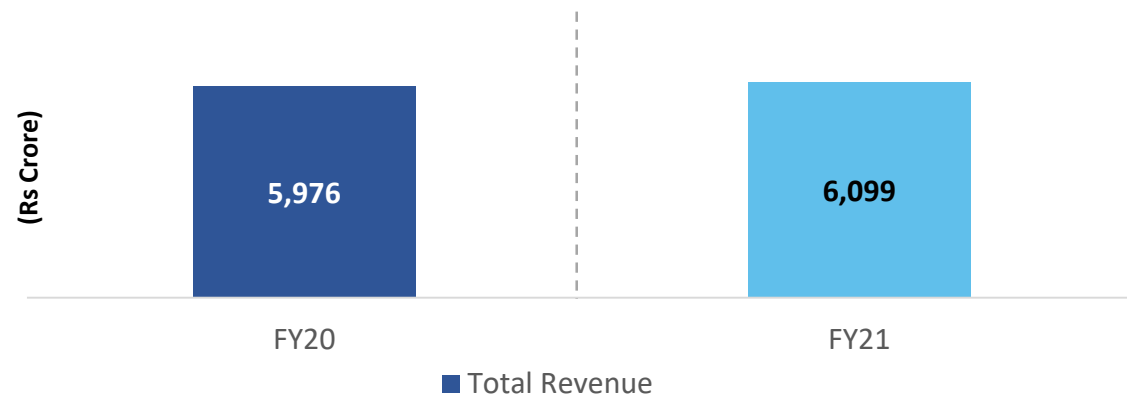
Jubilant Pharmova - Financials



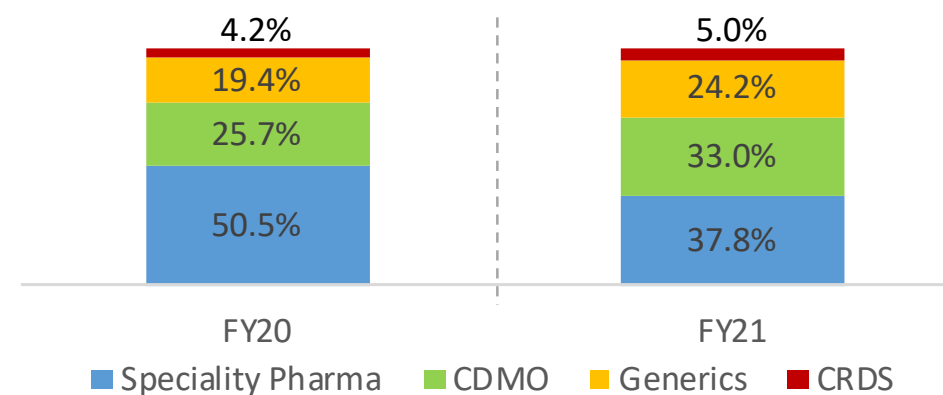
Financial Performance | P&L



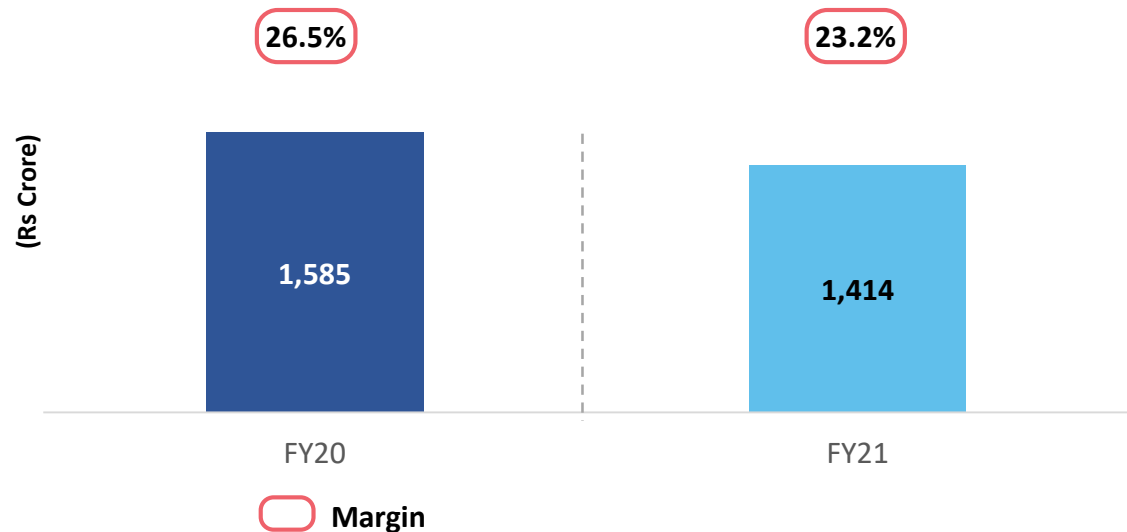
Revenue from Operations



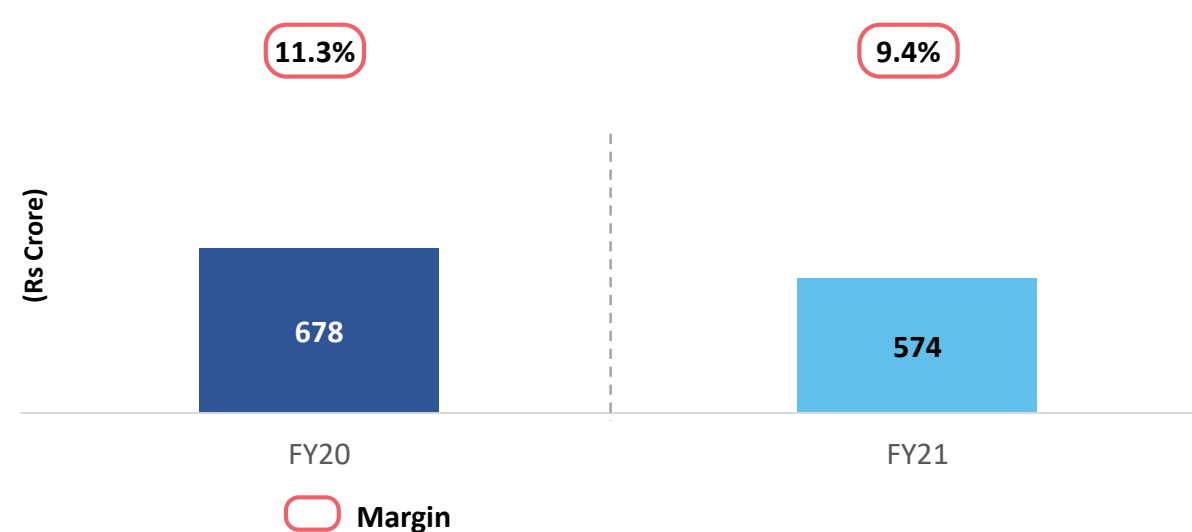
Revenue by Segment



EBITDA

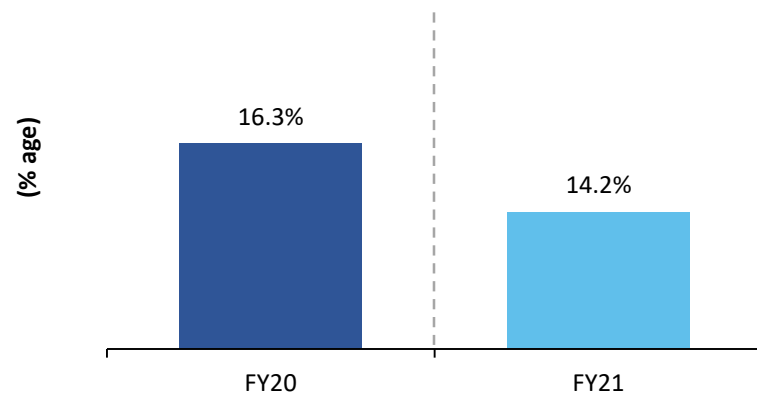


PAT

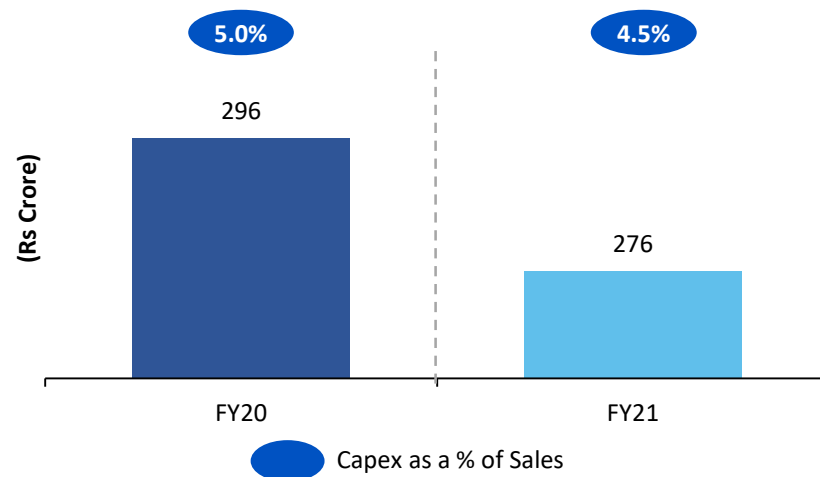


Financial Performance | Balance Sheet

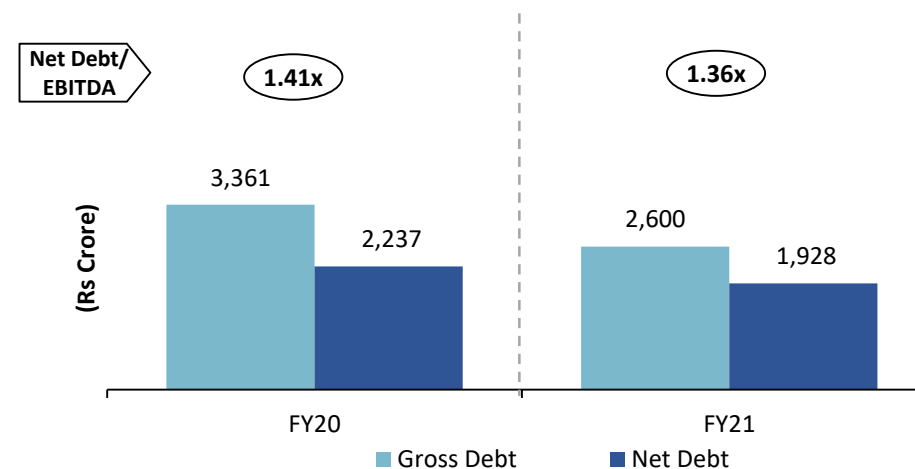
Return On Capital Employed (ROCE)



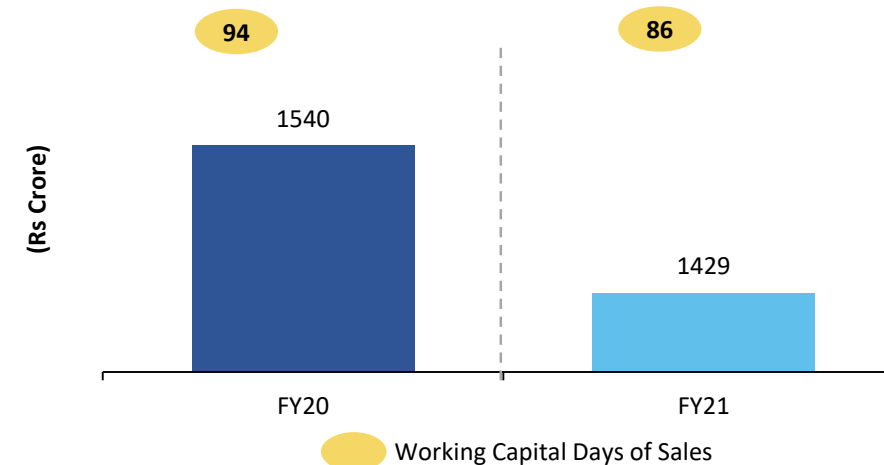
Capital Expenditures



Leverage



Working Capital



Financial Performance | FY21



Particulars ¹	FY20	FY21	YoY (%)
Revenue			
Pharmaceuticals	5,714	5,790	1%
Specialty Pharma	3,019	2,303	(24%)
CDMO	1,536	2,010	31%
Generics	1,159	1,476	27%
Contract Research and Development Services	251	305	21%
Proprietary Novel Drugs	10	4	
Total Revenue from Continuing Operations	5,976	6,099	2%
EBITDA			
Pharmaceuticals	1,555	1,386	-11%
Contract Research and Development Services	85	109	27%
Proprietary Novel Drugs	(12)	(13)	-
EBITDA from Continuing Operations	1,629	1,481	-9%
Reported EBITDA	1,585	1,414	-11%
Depreciation and Amortization	340	349	3%
Finance Cost	200	184	-8%
Profit before Tax (Before share of profit in Associates /	1,046	881	
Profit / (Loss) from Associates	0	11	
Profit before Tax (Before Exceptional Items)	1,046	892	
Exceptional Items	33	21	
Profit before Tax (After Exceptional Items)	1,013	871	-14%
Tax Expenses (Net)	335	297	
PAT	678	574	-15%
EPS (Rs)	42.55	36.04	-15%
EBITDA Margins			
Pharmaceuticals	27.2%	23.9%	
Contract Research and Development Services	34.0%	35.6%	
Reported EBITDA	26.5%	23.2%	

- LSI business demerged from February 1, 2021 into Jubilant Ingrevia. Continuing business revenue was Rs 6,099 Crore versus Rs 5,976 Crore in FY20
 - Pharmaceuticals revenue at Rs 5,790 Crore vs. Rs 5,714 Crore in FY20
 - Contract Research and Development Services revenue at Rs 305 Crore up 21% YoY
- Continuing business reported EBITDA at Rs 1,414 Crore for FY21
 - Pharmaceuticals EBITDA at Rs 1,386 Crore vs. Rs 1,555 Crore. EBITDA margin of 23.9% as compared to 27.2% in FY20
 - Contract Research and Development Services EBITDA at Rs 109 Crore up from Rs 85 Crore in FY20; EBITDA margin at 35.6% as compared to 34.0% in FY20
- Finance costs at Rs 184 Crore versus Rs 200 Crore in FY20.
- Average blended interest rate for FY21 stood at 5.07% as against 5.39% in FY20 aided by reduction in gross debt
- Exceptional includes premium on early redemption of US\$200m Senior Notes
- Continuing business PAT at Rs 574 Crore vs. Rs 678 Crore in FY20
- EPS of Rs 36.04 vs. Rs 42.55 in FY20.
- Capex in FY21 of Rs 276 Crore

1. All figures are in Rs Crore unless otherwise stated

Abbreviations



AIT	Allergen Immunotherapy
ANDA	Abbreviated New Drug Application
API	Active Pharmaceutical Ingredient
ATP	Allergy Therapy Business
CDMO	Contract Development and Manufacturing
CMO	Contract Manufacturing Operations
CNS	Central Nervous System
CVS	Cardio-Vascular System
DMF	Drug Master File
DTPA	Diethylene Triamine Penta Acetic Acid

GPO	Group Purchasing Organization
I-131	Iodine-131
IND	Investigational New Drug
MAA	Macro Aggregates of Albumin
MHRA	Medicines and Healthcare Products Regulatory Agency (United Kingdom)
NDA	New Drug Application
PET	Position Emission Tomography
PMDA	Pharmaceuticals and Medical Devices Agency (Japan)
USDA	The United States Department of Agriculture
USFDA	United States Food and Drug Administration

Thank You

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