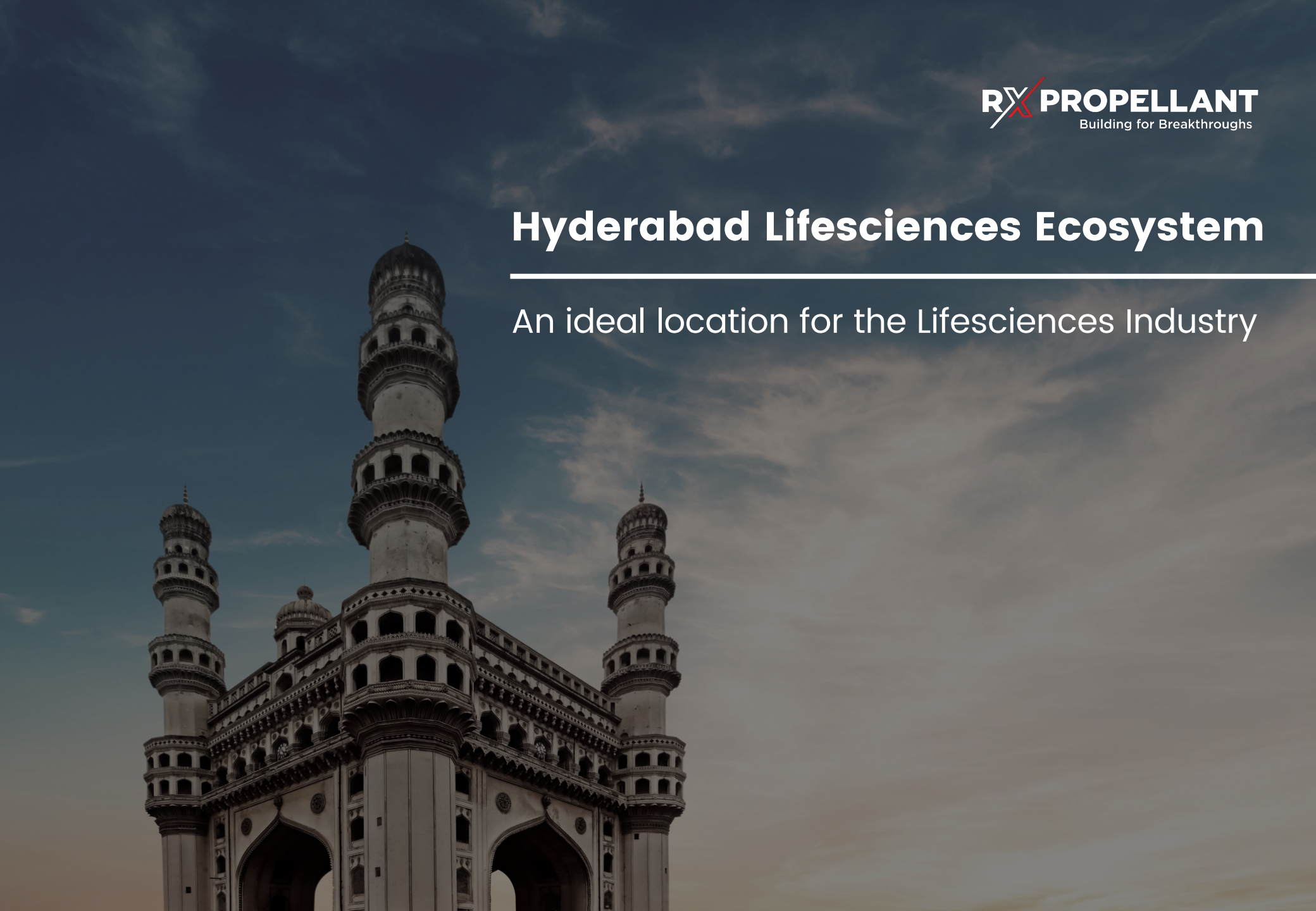
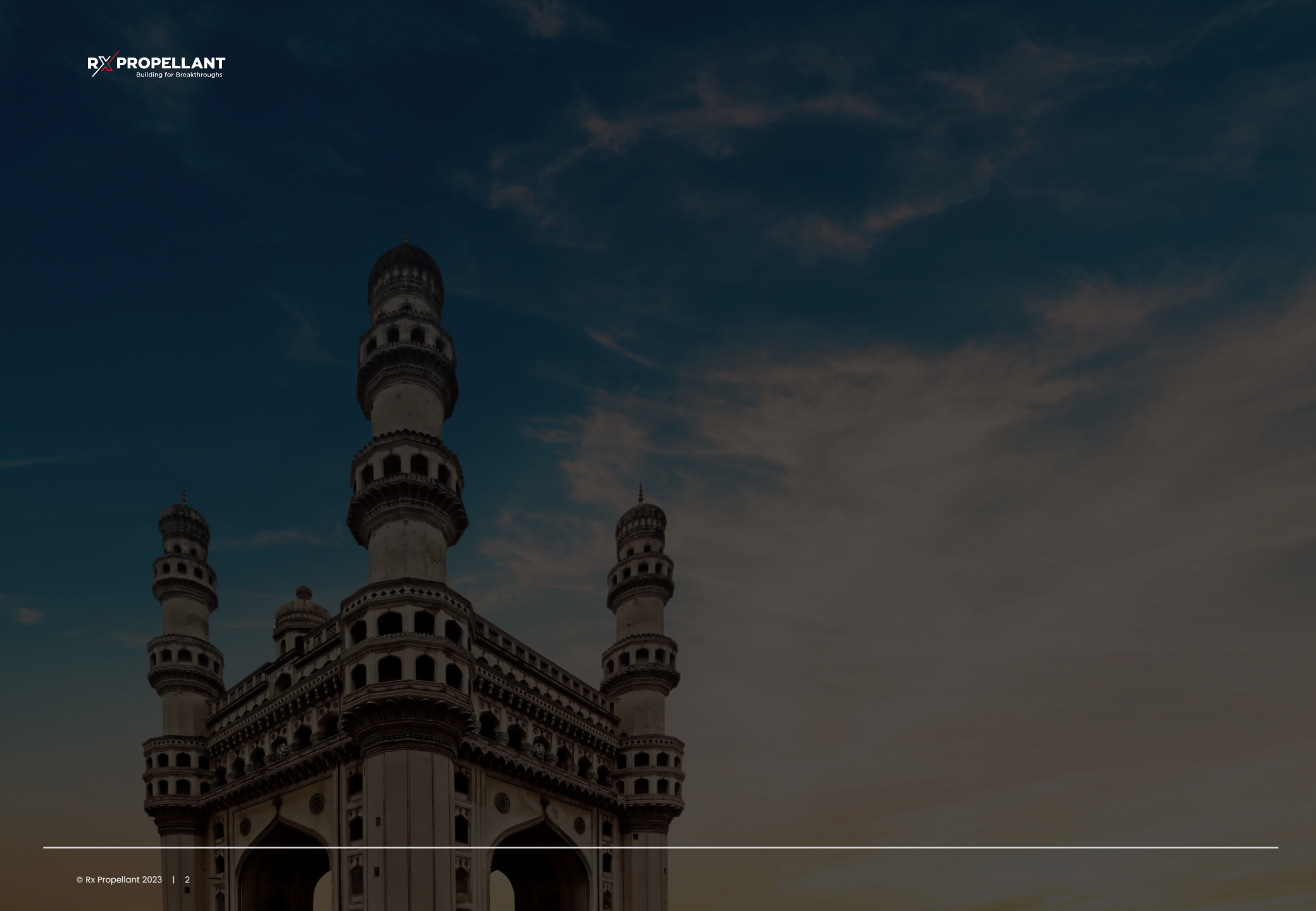
RX PROPELLANT
Building for Breakthroughs

# Hyderabad Lifesciences Ecosystem

## An ideal location for the Lifesciences Industry





# APPROACH AND LIMITATIONS

**The objective of the study is to understand the existing Lifesciences market of Hyderabad region.**

## I. Research Methodology and Scope of Study:

For the purpose of the study, we have considered the Lifesciences industry to include :

- Pharmaceuticals
- Biotechnology
- CROs (Contract Research Organisation: involved in contract research services)
- CMOs (Contract Manufacturing Organisation: involved in contract manufacturing services )
- CDMO (Contract Development and Manufacturing Organisation: involved in both contract research & development (R&D) and manufacturing services)
- Medical Devices
- Nutraceuticals
- Equipment & Supplies
- Specialty Chemicals & Others

### I.a. Catchment Area:

For our evaluation of the market, 4 (four) Lifesciences locations across Hyderabad region has been identified, referred to as 'clusters'. This initial selection is broadly based on the existing Lifesciences industry, key infrastructure facilities and talent availability within the city

The clusters under consideration are:

1. **Genome Valley**
2. **Medical Devices Park**
3. **Uppal-Nacharam**
4. **Patancheruvu**

The Clusters have been evaluated based on a detailed framework, taking into account various aspects of each cluster - both internal and external drivers.
Following parameters have been considered for an understanding of the existing Lifesciences market ecosystem in Hyderabad region:

- Lifesciences Industry Overview
- Talent Availability
- Evolving Lifesciences Clusters
- Flourishing Lifesciences Companies

## II. Limitations:

There have been very limited or no precedents set for much of the specific information/ data sets that are required for any structured presentation of data or statistics on clusters. The following represent some of the key challenges in bringing together this report:

### II.a. Availability of Information:

There is a lack of any historically accumulated data on Lifesciences infrastructure, facilities or support infrastructure specifics. While every effort has been made to capture the existing scenario holistically, it should be considered that there is limited availability of information on secondary sources.

### II.b. Company Specific Information:

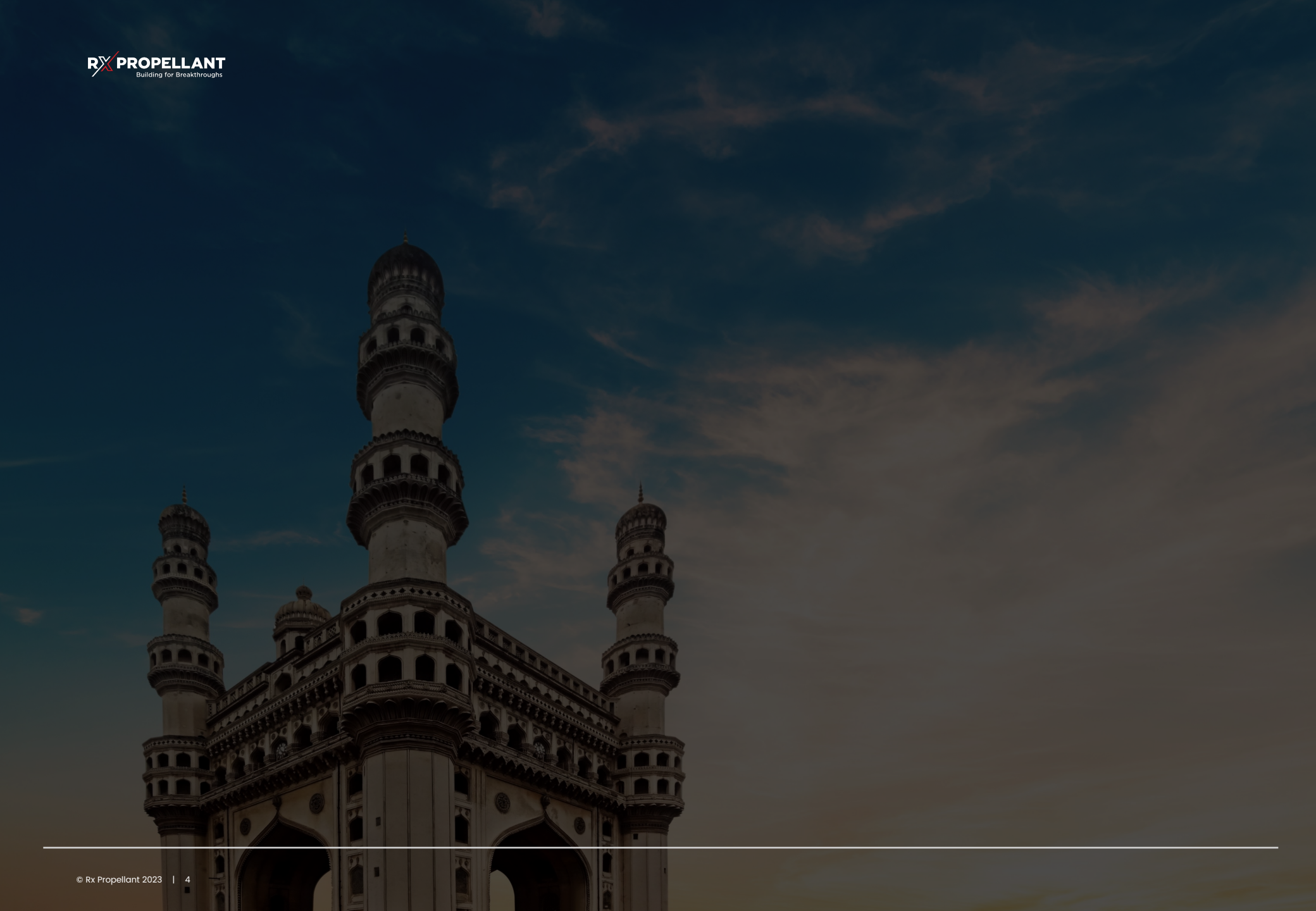
In most cases, while generic company level information was accessible, specific research activities/achievements, size of operations, timelines on commencement at a particular facility in a cluster, etc. was difficult to assimilate and attribute to a particular location. Given the confidential nature of such information, especially in the public domain, it was challenging to gather facility specific details across clusters.

### II.c. Facility Information:

Lifesciences real estate as a separate asset class is only just beginning to gain momentum among infrastructure and property stakeholders, as a result there are no precedents consolidating the size of this opportunity as well as databases/sources tracking the size of facilities, expansions, new investments, etc.

### II.d. Data Collection:

i. The statistics are derived from the data collated on a best effort basis by the Rx Propellant research team by means of site visits and company websites.
ii. Primary data is collected through site visits of existing facilities, meetings with industry experts, vendor contacts/suppliers, and data validation by 3rd party consultants during the preparation of Jacob Ballas & Cerestra Lifesciences Real Estate Report 2019. The data has been updated with extensive secondary studies available for the last two years.
iii. Job demand data is collated through secondary data from job portals like Naukri.com, Pharma alert and government recruitment notifications.



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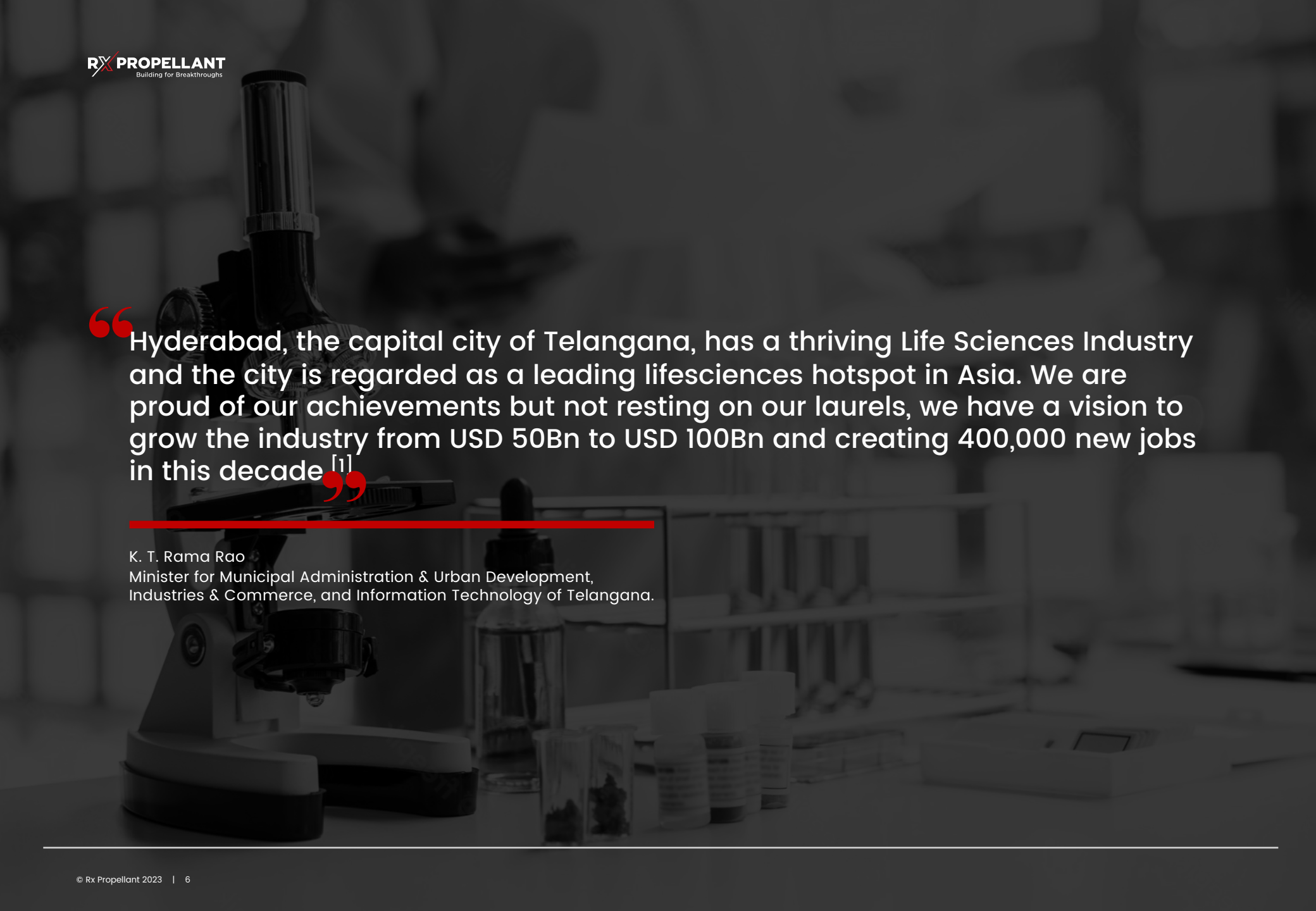


> Hyderabad, the capital city of Telangana, has a thriving Life Sciences Industry and the city is regarded as a leading lifesciences hotspot in Asia. We are proud of our achievements but not resting on our laurels, we have a vision to grow the industry from USD 50Bn to USD 100Bn and creating 400,000 new jobs in this decade [1]

K. T. Rama Rao
Minister for Municipal Administration & Urban Development,
Industries & Commerce, and Information Technology of Telangana.

# I.

# Lifesciences Industry Overview

Post-pandemic growth in the Lifesciences industry

Sector distribution

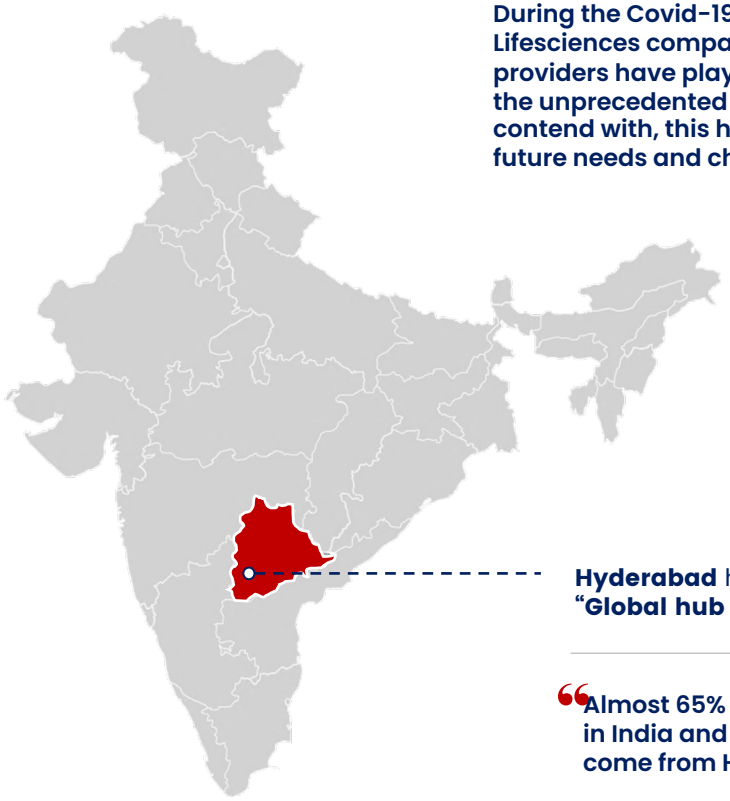
R&D and Manufacturing environment

Investment market overview

Start-up ecosystem

# Pandemic bolstered Hyderabad's role as 'Vaccine Capital of the World'





Map 1 : Location- Hyderabad

**During the Covid-19 pandemic, the country's Lifesciences companies and healthcare services providers have played a critical role in addressing the unprecedented challenge the world has to contend with, this has better equipped us to meet future needs and challenges.**

**Hyderabad** has emerged as the new **"Global hub for vaccine manufacturing"**

> **"Almost 65% of all vaccines manufactured in India and exported around the world come from Hyderabad."[2]**

Dr.Krishna Ella,
Chairman and Managing Director, Bharat Biotech

Home to **3 out of the top 5** leading vaccine manufacturers in India[3]

BHARAT BIOTECH
INDIAN IMMUNOLOGICALS LIMITED
Biological E. Limited
Celebrating Life Every Day

> **"Hyderabad will be an integral part of the Covid-19 solution just by the dint of the sheer vaccine manufacturing capacity it houses."[4]**

Ms. Mahima Datla
Managing Director, Biological E Limited


COVAXIN, India's indigenous COVID-19 vaccine by Bharat Biotech was developed in collaboration with the Indian Council of Medical Research (ICMR)[5]

World Health Organization **COVAXIN has WHO approval for Emergency Use Listing[6]**


CORBEVAX, India's first Covid-19 vaccine for children of age group 12-14 is developed by Biological E[7]


Russian Direct Investment Fund (RDIF), which funded the vaccine development of Sputnik V contract-manufactured from Dr Reddy's Laboratories (DRL), Hetero Biopharma and Virchow Biotech[8]

## Bharat Biotech's contribution towards vaccine development for COVID-19

Bharat Biotech International also started the development of **India's first intranasal Covid-19 vaccine** in Hyderabad[9]

The Hyderabad-based firm completed clinical trials of the nasal vaccine with about 4000 volunteers. Drugs Controller General of India (DCGI) has given nod to India's First Intranasal Covid vaccine for restricted emergency use in September 2022[10]

# Beyond vaccines, Hyderabad has a thriving Lifesciences industry

## Hyderabad is regarded as the leading Lifesciences hotspot with various multinationals operating across the Lifesciences value chain.

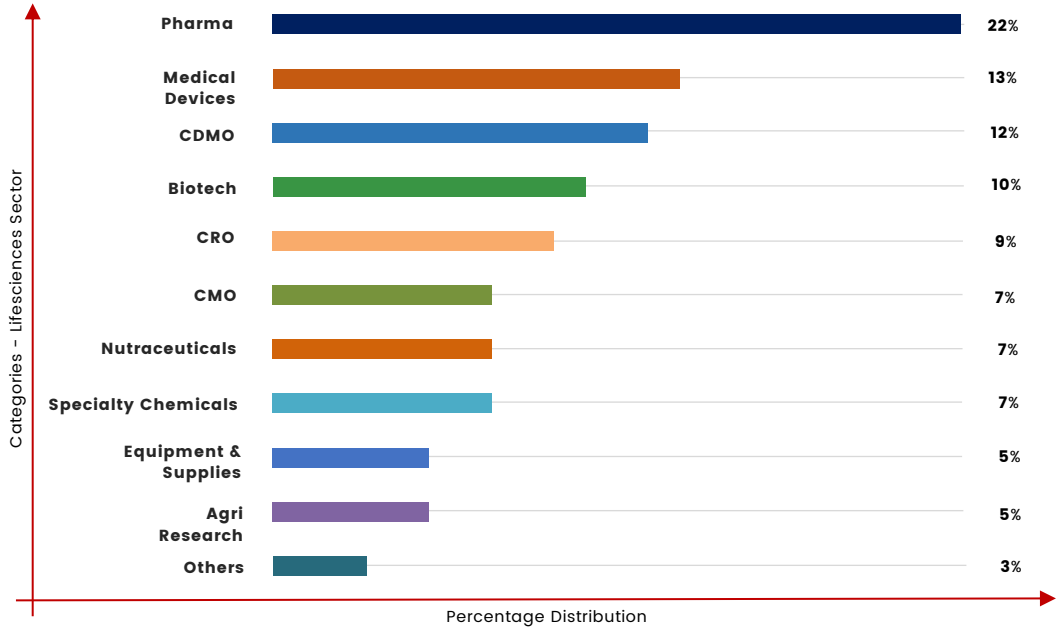



Figure 1 : Distribution of categories under Lifesciences sector in Hyderabad

## Presence of Prominent companies in respective sectors

**Pharma**

Alembic, amneal, GRANULES, Piramal Pharma Solutions

**Medical Devices**

Medtronic, ARKA, MAJIK, Sandor Specialty Diagnostics Pvt. Ltd., promea

**CDMO**

Syngene, LAXAI, curia, aragen, Sai, virchow

**Biotech**

BHARAT BIOTECH, Biological E. Limited, SANOFI, Lonza, INDIAN IMMUNOLOGICALS LIMITED

**CRO**

Chemveda, SIPRA Labs, Vimta, Vivo Bio Tech Ltd., SUVEN

**CMO**

DsnLabs, THERAPIVA, GPT Pharmaceuticals, GLUKEM

**Nutraceuticals**

Dr. Reddy's, SAMI LABS, LIFESPAN, auraleafs, UNIQUE BIOTECH

**Specialty Chemicals**

ADAMA, JET LIFE SCIENCES, Vector Bio, TCI

**Equipment & Supplies**

HIMEDIA, Huwel, SRICO

**Agri Research**

agrigenome, ATGC, TELLURIS BIOTECH, Crop Science, ADVANTA

*Based on Rx Propellant research. The percentages are derived from the presence of number of Lifesciences companies under mentioned sectors.
** The number has been derived from the list of incubators collated on the basis of Rx Propellant primary research.

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**450+**
Pharma and Biotech companies present in Hyderabad*

**~850 Mn USD**
worth investment announcements at BioAsia 2022 [11]

**~45%**
of the total employed workforce in the Lifesciences sector [12]

**40%**
of India's pharmaceutical production is from Hyderabad [13]

**1/3rd**
of global vaccine and pharmaceutical supply from Hyderabad [13]

**20+**
Lifesciences and Medtech incubators- highest in India**

# Robust presence of R&D and Manufacturing environment

## Distribution of Lifesciences operations in Hyderabad*

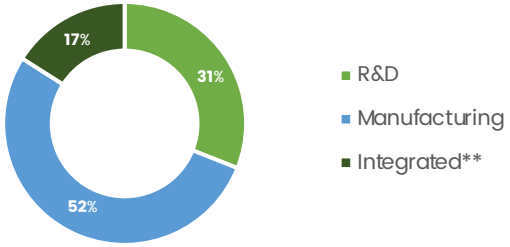



Figure 2 : Distribution of Lifesciences operations

## Sector-wise R&D distribution*

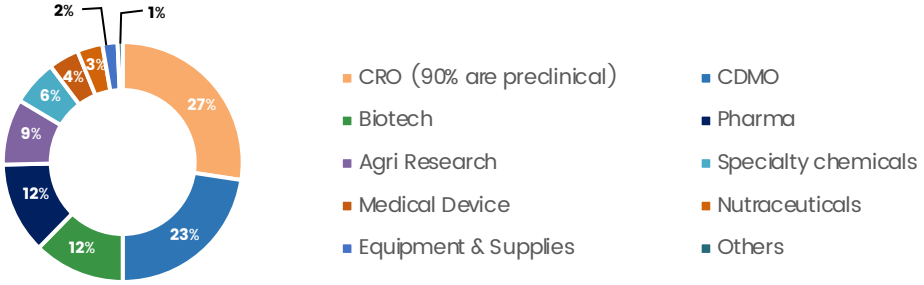



Figure 3 : Distribution within R&D segment

## Sector-wise Manufacturing distribution*


Figure 4 : Distribution within Manufacturing segment

*Based on Rx Propellant research. The percentages are derived from the presence of number of Lifesciences companies under the mentioned operations.
** Integrated means R&D and Manufacturing operations are within the same premises.

## Hyderabad

- Has more density of manufacturing operations across the Lifesciences sectors
- Has the largest share of Lifesciences R&D operations executed on contract basis (refer figure 4 for distribution within R&D segment)
- Medical Device and Pharma sector has the major share of manufacturing operations (refer figure 5 for distribution within Manufacturing segment)

**Hyderabad has the largest and most vibrant R&D cluster in India, with 6 of the world's top 10 R&D companies having R&D facilities** [14]

**Hyderabad is the most competitive city for manufacturing operations in Asia Pacific Lifesciences sector** [14]

CBRE Asia Pacific Research

# Post-pandemic significant investments in the Lifesciences sector

Hyderabad has now become one of the preferred destinations for global pharma biotech investments in India. At a time when the global economy was reeling under the impact of Covid-19 pandemic, Lifesciences sector managed to attract major investments in Hyderabad city.

**May 2022**

Genome Valley based preclinical CRO **GV Research Partner (GVRP)** to invest **USD 5 Mn** in a vivarium in partnership with US headquartered **Envigo RMS LLC** [16]

**July 2022**

**Biological E** announces investment of **USD 226 Mn** across three facilities at **Genome Valley** [17]

**September 2022**

**DFE Pharma** inaugurated its new "Closer to Formulator", a **Center Of Excellence** (COE) at Genome Valley [18]

**January 2023**

**Eurofins Scientific** announced to establish a fully-equipped, state-of-art laboratory campus in **Genome Valley** with an investment of **USD 121 Mn** [19]

**February 2023**

US-based **Foxx Life Sciences** plans to invest **USD 24 Mn** to expand capabilities in **pharmaceutical SUT** (single-use technology for drug manufacturing) [20]

**February 2023**

**Gland Pharma** announced second round of investment of **USD 48 Mn** in Genome Valley to expand capacity of biologicals, biosimilar and antibodies manufacturing facility [21]

**September 2023**

**Syngene International** to invest **USD 96 Mn** to expand operations in Hyderabad's Genome Valley by building 16.5 lakh sq ft of cutting edge research laboratories spread over 17.5 acres and creating over 1000 jobs. [25]

**July 2023**

**Aurigene Pharma,** a subsidiary of Dr Reddy's Labs plans to invest **USD 36 Mn** in setting up a development and manufacturing facility in Genome Valley [24]

**February 2023**

**Jubliant Group** plans to set up a state-of-art facility in Genome Valley [23]

**February 2023**

**Bristol Myers Squibb** plans to establish a state-of-art site to expand its global drug development and IT capabilities with an investment of **USD 97 Mn** [22]

> "Hyderabad has been known for its strengths in pharma biotech for decades now. The continued development of the ecosystem in Hyderabad is now attracting investments." [15]

R Uday Bhaskar,
Director - General, Pharmaceutical Exports Promotion Council

# Flourishing Lifesciences Start-up & Incubation Ecosystem

**Amongst Top 100**
Emerging Start-up Ecosystems globally[26]

**3 out of top 10**
Lifesciences Incubators in India located in Hyderabad [27]

**300+**
Start-ups in incubation as of March 2022*

## Incubators in Hyderabad

| S.No. | Incubator Name | Focus Areas | Incubatees |
|---|---|---|---|
| 1. | IKP Knowledge Park[28] | Healthcare, Agri Research, Biotechnology | 65 |
| 2. | a-IDEA, NAARM-TBI[29] | Agri Research, Animal Biotechnology, Microbiology, Bio-informatics | 53 |
| 3. | Aspire BioNEST[30] | Biotechnology | 48 |
| 4. | Centre for Cellular & Molecular Biology (CCMB)[31] | Biotechnology, Agri Research | 45 |
| 5. | Nutri Hub[32] | Agri Research | 25 |
| 6. | BITS BIRAC BioNEST[33] | Molecular Biology, Environmental Engineering | 22 |
| 7. | Society for Biotechnology Incubation Centre (SBTIC) [34] | Biotechnology | 20 |
| 8. | OJAS MedTech BioNEST[35] | Medical Devices | 15 |
| 9. | National Institute of Agricultural Extension Management[36] | Agri Research | 9 |
| 10.. | ICAR – National Academy of Agricultural Research Management[37] | Agri Research | 8 |
| 11. | Osmania Technology Business Incubator[38] | Healthcare, Biotechnology | 5 |
| 12. | MNR Institutions[39] | Medical Science, Applied Research | 3 |
| 13. | International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) [40] | Agri Research | - |

* The number has been derived from the list of incubators collated on the basis of Rx Propellant research.

> "Hyderabad has created industry academia linkages, institutions of great eminence for research, entrepreneurs, start-ups, incubators; that are world-class, and in future is going to be a leading innovation hub, and a global innovation cluster.[41]"
>
> Kiran Mazumdar Shaw
> Executive Chairperson, Biocon

## Prominent start-ups incubated in Hyderabad

**LAURUS Labs**
Knowledge . Innovation . Excellence

- Incubated at IKP Knowledge Park (2007)[42]
- Preclinical CDMO [42]
- API, Biotechnology Products [43]
- 3000+ employees as of Sept 2023 [44]

**Provis**

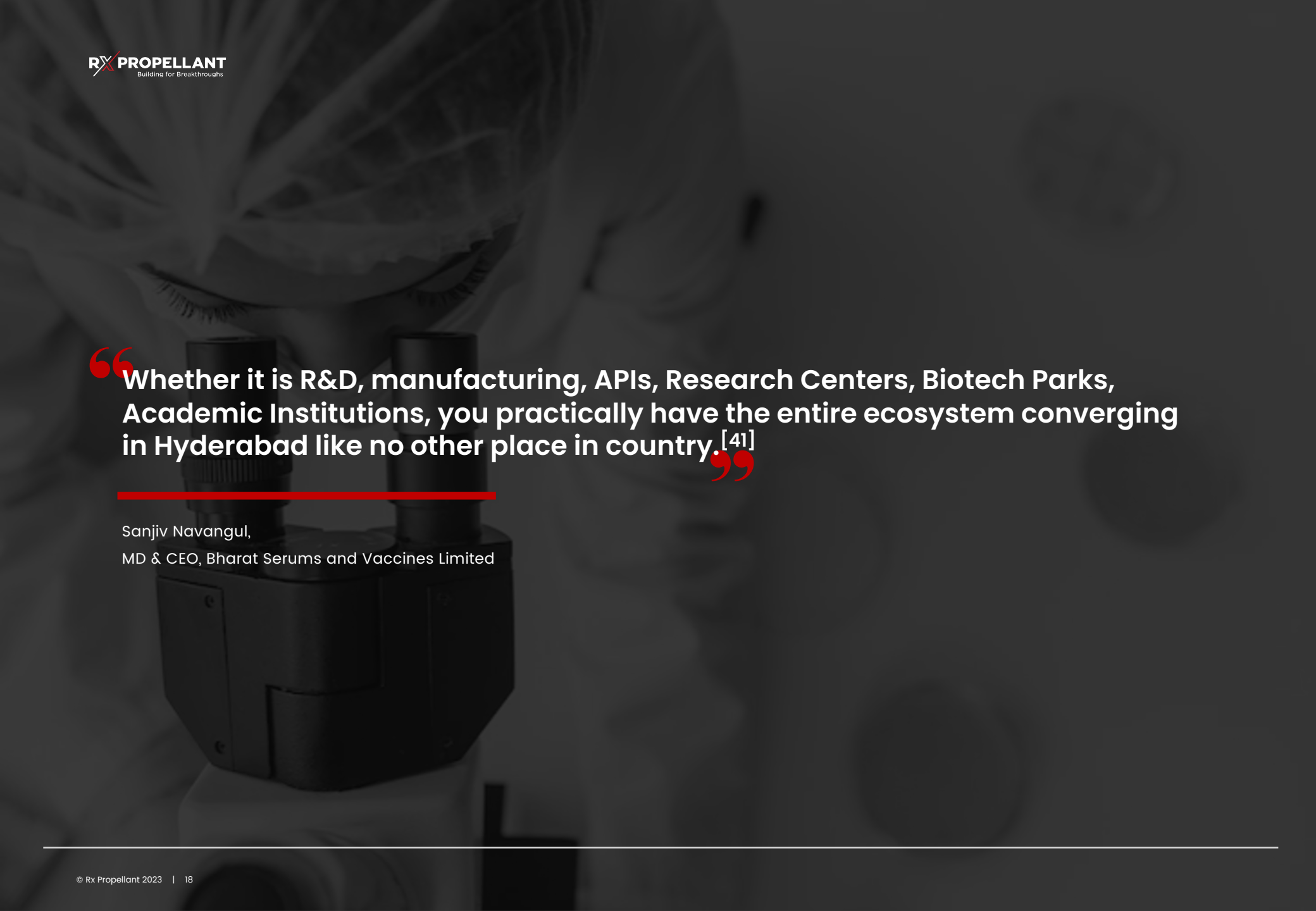
- Incubated at Aspire Bionest (2019) [45]
- Biotechnology [45]
- API, Specialty Enzymes[46]
- 11-50 employees as of Sept 2023 [47]

**NOVICK**
BIOSCIENCES

- Incubated at Aspire Bionest (2016) [48]
- Preclinical CRO [48]
- API, Drug Development [48]
- 50-200 employees as of Sept 2023 [49]

**VIRUPAKSHA**

- Incubated at Atal Incubation Centre (2003) [50]
- Specialty Chemical based [50]
- Chemical Products [50]
- 100+ employees as of Sept 2023 [51]



> **Whether it is R&D, manufacturing, APIs, Research Centers, Biotech Parks, Academic Institutions, you practically have the entire ecosystem converging in Hyderabad like no other place in country.**[41]

Sanjiv Navangul,
MD & CEO, Bharat Serums and Vaccines Limited

# II.

# Talent Availability

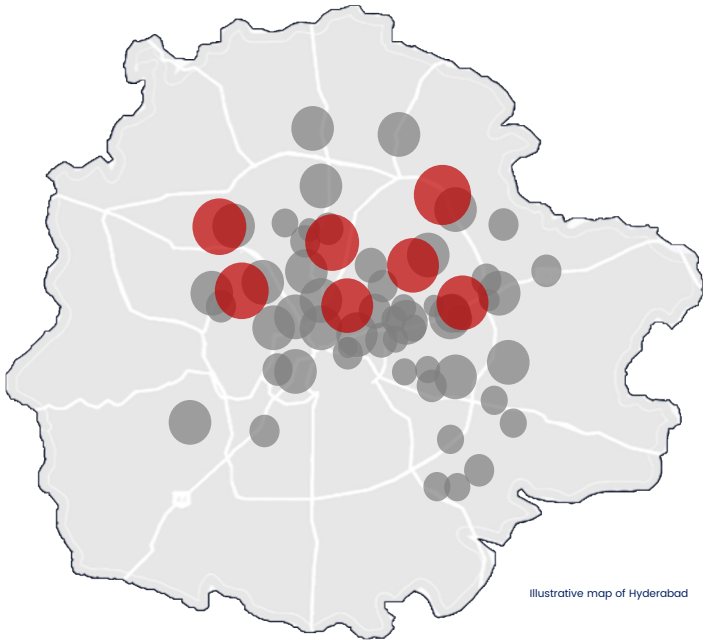
Universities & Institutes

Skill Development centers and initiatives

Demand for skill in the industry

# Presence of high density of universities & institutions

Hyderabad has some of the finest academic and research institutions, universities and top-most talents driving the growth of the Lifesciences industry




Top Lifesciences universities and research institutes

Other Lifesciences universities and research institutes

Map 2 : Location – Lifesciences universities and research institutes

**Hyderabad has 17** of world's 1,000 best research institutions

**20+** National Research Institutions*

**1 Lakh+** Student enrollment in science graduation programs*

**50+** Premier Science and Research Institutes*

> "Hyderabad has a very strong Lifesciences ecosystem; availability of talents is a big plus."[41]

Mr. Madan Krishnan
Vice President & Managing Director
Indian Subcontinent, Medtronic

*Based on the collated list of universities and institutes in Rx Propellant research.

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## Top Research Institutes and Universities in Hyderabad

### Universities*

- Jawaharlal Nehru Technology University, Hyderabad [JNTUH]
- Dr. B R Ambedkar Open University
- Osmania University
- University of Hyderabad
- Malla Reddy University
- GITAM University

### Public Research Institutions*

- National Institute of Pharmaceutical Education and Research
- Centre for Cellular and Molecular Biology
- CSIR-Indian Institute of Chemical Technology
- ICMR-National Institute of Nutrition
- Tata Institute of Fundamental Research (TIFR)
- National Institute of Animal Biotechnology (NIAB)

### Private Research Institutions*

- Dr. Reddy's Institute of Life Sciences
- Birla Institute of Technology and Science BITS-Pilani
- Deccan School of Pharmacy [DSOP]
- CMR Group of Institutions
- Bhavan's Vivekananda College

# Profiles of top-tier research institutions in Hyderabad

## NIPER HYDERABAD

National Institute of Pharmaceutical Education and Research

- 250+ graduates every year [52]
- 3+ MBA, M. Pharm and PhD courses (Pharma) [52]
- Placements in companies like Syngene, Novartis, Sun Pharma, etc. [52]

**1st** in Pharmacy category of National Institutional Ranking Framework (NIRF) 2023 [52]

**2nd** in Graduation Outcome under Pharmacy category of National Institutional Ranking Framework (NIRF) 2022

### Research Focus [53]

- Medicinal Chemistry
- Formulation Development
- Molecular Modelling
- Process Chemistry
- Regulatory Toxicology

### Academic Collaborations [54]

University of Minnesota Driven to Discover; Manchester 1824; University of Lodz; NUS National University of Singapore

### Industrial Collaborations [54]

Biological E. Limited; Jubilant Biosys; Novartis; Chemveda; Dr. Reddy's; Bharat Biotech

## CSIR – Indian Institute of Chemical Technology

Council of Scientific and Industrial Research
Ministry of Science & Technology, Govt. of India

- 40+ graduates every year [55]
- 2+ PhD courses (Chemical & Biological Sciences) [55]
- Placements in companies like BHEL, TCS, Indian Oil, etc. [55]

**CSIR Technology Award 2021** for outstanding contributions to affordable healthcare [58]

**Dynamic R&D organization** and a reliable destination of chemical industries around the globe. [59]

### Research Focus [56,57]

- Phase Analysis
- Formulation Development
- Process Chemistry
- Regulatory Toxicology
- Method Development XRD Techniques

### Academic Collaborations [60]

Department of Biotechnology, Government of India; CCMB; Bose Institute

### Industrial Collaborations [61]

Biovet; Sun Pharma; Cipla; Bharat Biotech

## CSIR – Centre for Cellular & Molecular Biology

Council of Scientific and Industrial Research
Ministry of Science & Technology, Govt. of India

- 150+ graduates every year [62]
- 14+ MBA, PhD courses (Molecular Biology, Biochemistry etc.) [62]
- Placements in companies like Syngene, Aragen, etc. [62]

**4** times CSIR Technology award winner [63]

**Centre of Excellence by UNESCO** Global Network for Molecular and Cell Biology (MCBN) [63]

### Research Focus [64]

- Combinational Therapy
- SARS-COV2 Genomics
- Development Biology
- Crop Improvement

### Academic Collaborations [65]

TWAS; Institut Pasteur; McGill; SDU

### Industrial Collaborations [65]

Virchow Biotech; Agilent Technologies; Matrix Bioscience

# Profiles of top-tier research institutions in Hyderabad

## ICMR - National Institute of Nutrition

Indian Council of Medical Research

- 50+ graduates every year [66]
- 2+ M.Sc., PhD courses (Nutrition) [66]
- Placements in sports/ nutrition centres. [66]

Only **premier Nutrition** Research Institute in India [67]

**Research Focus [66]**

- Development of functional foods for Metabolic syndromes
- Production of Alpha galactosidase
- Potential role in metabolic syndrome
- Cellular, Molecular / Epigenetics

**Mid-Career Award' for the year 2020** in the Nutrition Education and Behavior Sciences (NEBS) section [68]

**Academic Collaborations [69]**

The Rockefeller University · University of Colorado Anschutz Medical Campus · Johns Hopkins Bloomberg School of Public Health · Washington University in St. Louis

## University of Hyderabad

- 200+ graduates every year [70]
- 14+ MBA, PhD courses (Molecular biology, Biochemistry etc.) [70]
- Placements in companies like Dr. Reddy's, GE Healthcare, TCS, etc.[70]

**Research Focus [71]**

- Biodegradable Nanoparticles
- Potential drug for psoriasis
- Novel step-efficient synthesis of Tamoxifen
- Bioinformatics

**10th** Under universities and top 20 overall, as per National Institutional Ranking Framework (NIRF) Rankings 2023 [72]

Rated as **High Output-High Impact by NISSAT**

**Academic Collaborations [73]**

Princeton University · University of Exeter · IRRI

**Industrial Collaborations [74]**

Dr. Reddy's · ACCESS health international · TCS Tata Consultancy Services

## Bits Pilani

Birla Institute of Technology and Science

- 350+ graduates every year [75]
- 14+ MSc/PhD/BSc/ M.Phil. (Molecular Biology) [75]
- Placements in companies like Evaluserve, Dr. Reddy's, etc.[75]

**Research Focus[78]**

- Microbial Biotechnology
- Tissue Culture Technology
- Synthetic Organic Chemistry
- Cardiovascular Pharmacology

**Top 3** In Pharmacy category by QS India ranking[76]

Awarded **Research Initiation Grant** for 2 years (2020-2021) [77]

**Academic Collaborations[79]**

NUS · Concordia University Montreal · University of Stuttgart · Otto von Guericke Universität Magdeburg

**Industrial Collaborations [79]**

Dr. Reddy's · SUVEN Life Sciences · Syngene Putting Science to Work · indegene

# Skill development initiatives

| Topmost Skill Development Institutes | Skilling Programs |
|---|---|
| **Dr Reddy's Institute of Life Sciences**<br>Research institute with a passion for growth and learning and a purpose to build bridges with industry | MSc. (Biochemistry, Biotechnology, Chemistry, Pharma) application-based learning, live project work, interact with HR & CSO leaders in industry, hands on training[80] |
| **Synteny Lifesciences Pvt. Ltd.**<br>Involved in selective study module for students and entrepreneur fraternity to take up on classroom and online | Biotechnology (Microbiology, Molecular Biology and Genetic Engineering, Cell Line Studies, Biochemistry, Immunology, Fermentation Technology, Immunohistochemistry), Bioinformatics (Computer Aided Drug, Genomics & Proteomics, Basic Bioinformatics, Chemo Informatics, Protein Modelling & Rational Drug Designing)[81] |
| **Vishnu Institute of Pharmaceutical Education and Research**<br>Developing highly skilled students with the ability to adapt to an intellectually and technologically changing environment | MSc. PhD (Biotechnology, Biochemistry Chemistry) Project-based research experience, summer internship, technique-based training, workshops[82] |
| **FABA Academy**<br>Grooming students for a better career in science in the fields of academia or industry | Hands on training in Molecular Biology, RT-PCR, Cell line studies, Clinical research [83] |
| **The Whiteboard**<br>Build a community of qualified and dynamic clinical trials and data science professionals | Multiple analytical tools to help you upskill, stay relevant and get noticed in clinical domain, Clinical SAS Programming, Clinical Data Interchange Standards Consortium (CDISC) [84] |
| **GV Academy for Life Sciences**<br>Edu-Skilling institution focused on providing industry aligned and hands-on skilling programs for life sciences workforce | Wet lab courses, dry lab courses, hands on training Internships, fellowships, scholarships, global programs, direct industry interactions.[85] |

Beyond the courses offered by institutes, major companies are organising industry focused training & upskilling programs to create the workforce of the future



> "Industry and academia collaborations are very important in global innovation rankings and creation of innovative solutions for the social benefit."[86]

Krishna Bodanapu
Chairman, CII Telangana and MD, CYIENT Ltd.

## Industry-Academia Upskilling Programmes in Collaboration [87]

Industry-oriented Training Programme

Hands-on Training institute to bridge gap between Academia and Industry

## Vaccine Skill Development Programme
## An initiative of the Government of Telangana [87]

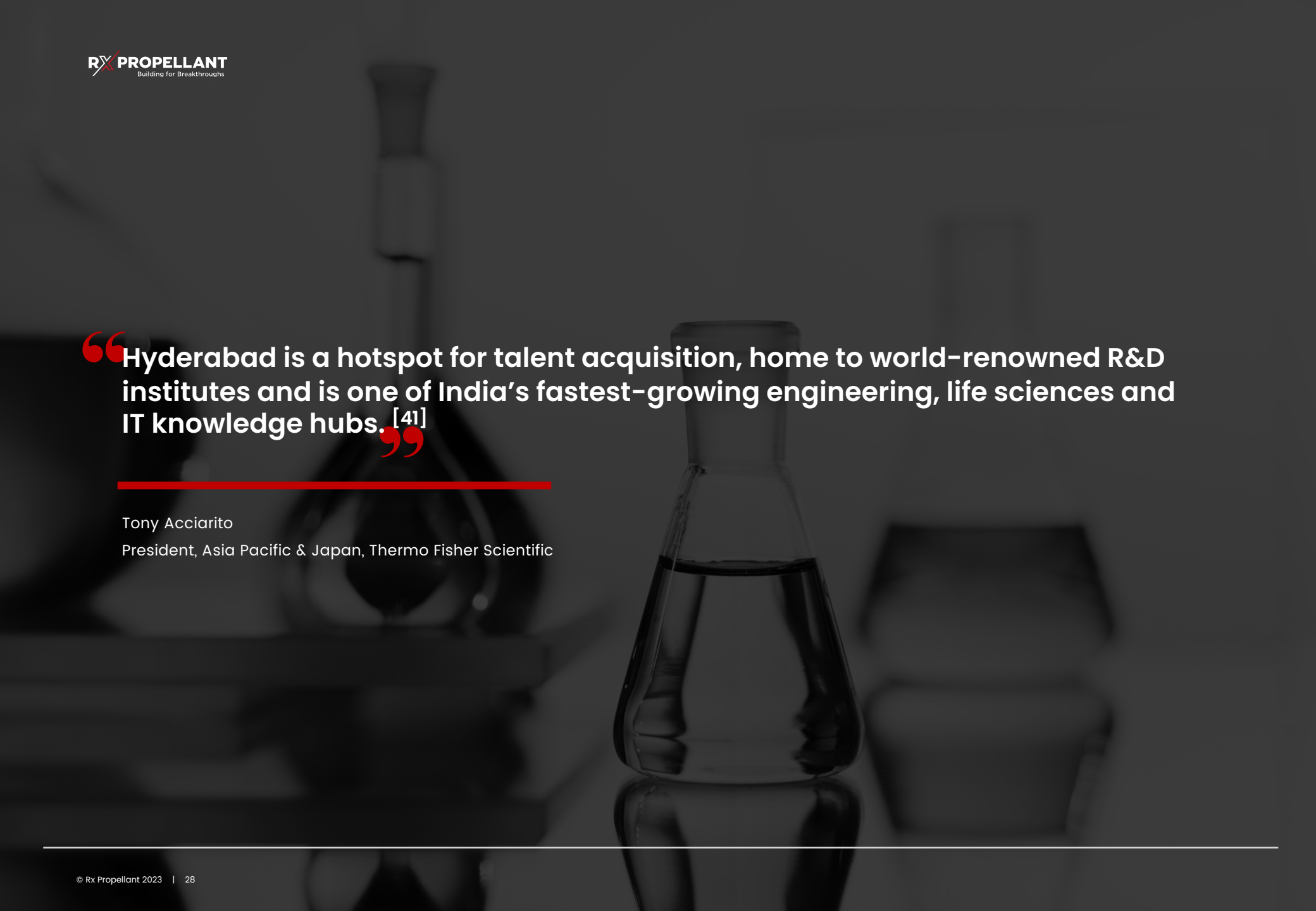
The Government of Telangana in partnership with the leading vaccine industries conceptualized and rolled-out a unique industry-led Vaccine Skill Development program to build capabilities in Biopharma industry.

### Industry Partners

BHARAT BIOTECH

Biological E. Limited
Celebrating Life Every Day

INDIAN IMMUNOLOGICALS LIMITED



> **Hyderabad is a hotspot for talent acquisition, home to world-renowned R&D institutes and is one of India's fastest-growing engineering, life sciences and IT knowledge hubs.** [41]

Tony Acciarito

President, Asia Pacific & Japan, Thermo Fisher Scientific

# Lifesciences firms creating increased demand for skilled workforce

## Emerging employment opportunities in the city

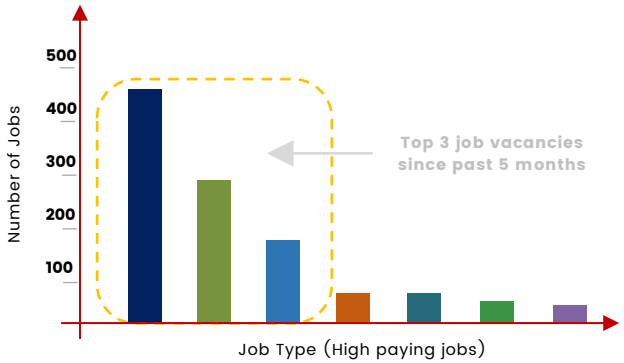
**Hyderabad Pharma City** will provide a jumpstart platform to Lifesciences companies and is expected to generate **employment of around 560,000 people** [88]

Global leading CRO **Chemveda Life Sciences** announces its expansion in Hyderabad to set-up a R&D centre creating employment opportunities for **500 scientists** [89]

**The Medical Devices Park** in Hyderabad has witnessed phenomenal growth with investment commitments and **about 7,000 direct jobs** [90]

**The S3V facility** to be developed at Hyderabad by 2023, will provide **direct employment for around 750 people** [91]

## Present employment opportunities in the city




### High paying job roles

- Process Engineer
- QA/QC Scientist
- Research Associate
- Scientific Manager
- Associate Scientist
- Research Chemist
- Medicinal Chemist

Figure 5 : Job vacancies trends

**Our vision is to become the leading Lifesciences hub in Asia through innovation-driven & tech-enabled growth, while doubling the sectoral value to US$ 100 Billion and adding 400,000 new jobs by 2030.[92]**

Telangana Life Sciences

*Based on Rx Propellant research. The data has been derived from multiple job portals.

RX PROPELLANT
Building for Breakthroughs

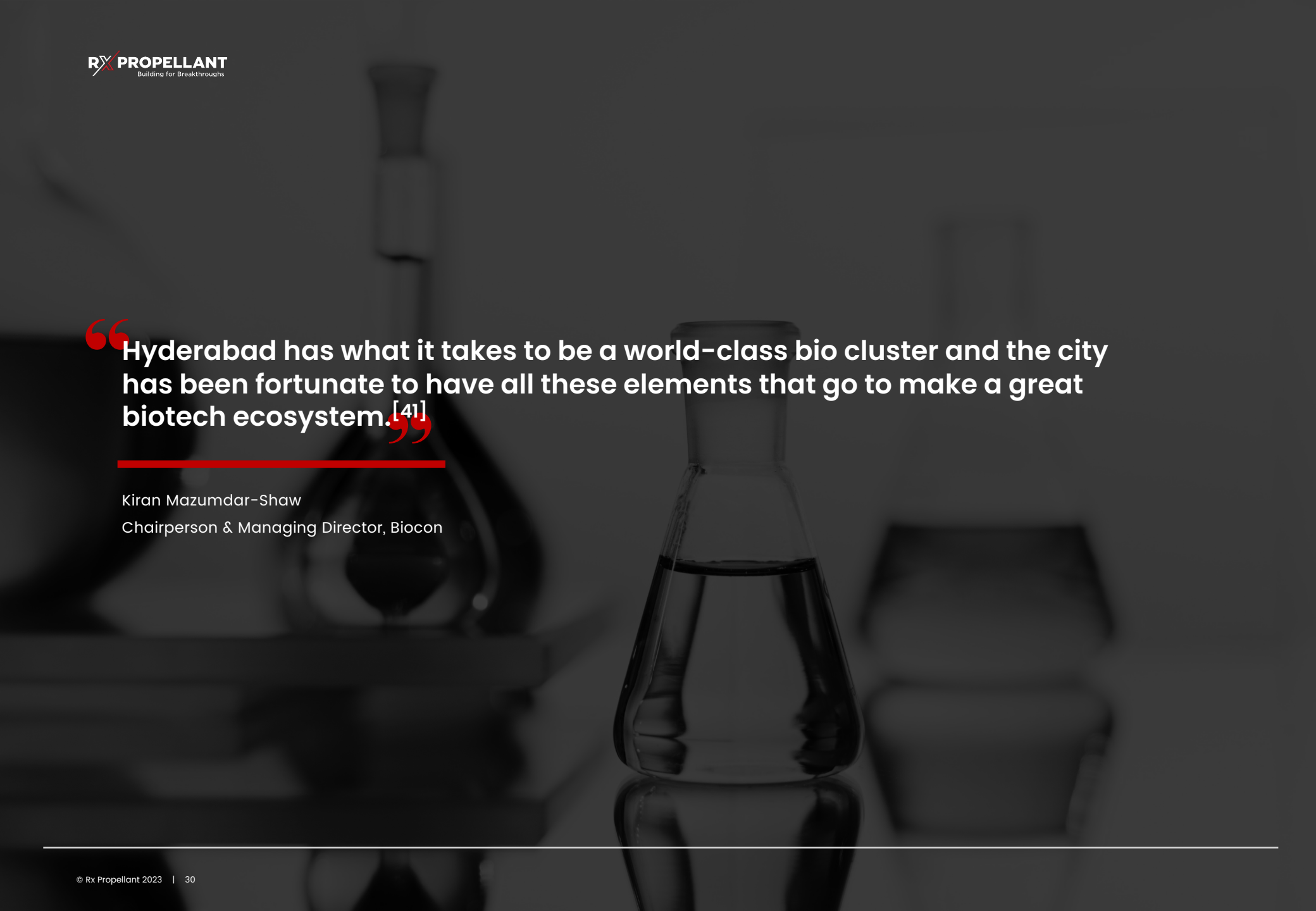
**1000+**
jobs in the city of Hyderabad

**19**
Lifesciences and Med-Tech Incubators in Hyderabad[12]

**500+**
Employee strength in each of the major Lifesciences companies*

**The employed talent pool in Hyderabad supports multitude of functions across the life sciences value chain such as Product R&D, Clinical Operations, Sales and Marketing, IT, and other corporate services**

Telangana Life Sciences



> Hyderabad has what it takes to be a world-class bio cluster and the city has been fortunate to have all these elements that go to make a great biotech ecosystem.[41]

Kiran Mazumdar-Shaw
Chairperson & Managing Director, Biocon

# III.

# Evolving Lifesciences Clusters in Hyderabad

Growth of Lifesciences clusters

Lifesciences clusters overview

Industry concentration and social infrastructure

- Genome Valley
- Patancheruvu
- Uppal-Nacharam
- Medical Device Park

# Lifesciences industry growth timeline : Hyderabad

Hyderabad, the capital city of India's youngest State Telangana, has emerged as a leading life sciences hub in Asia housing more than 800 life sciences companies with a combined valued of USD 50 Bn. Hyderabad's position as a leader in the life sciences industry is expected to strengthen.

**1962**

**Patancheru Industrial Park** established by Indira Gandhi[93]

Boosted the organized growth of the existing Lifesciences companies in the city

**1967-1974**

Establishment and transfer of **Nacharam Industrial Development Area** to TSIIC-IALA[94]

Development of social infrastructure supported the growth of the companies

**1986-1994**

**Drug policy, 1986; modified in 1994** [95]

Fostering growth of the pharmaceutical industry in India

**1999**

**Genome Valley** was commissioned as S. P. Biotech Park in a PPP with Bharat Biotech International [96]

Intended to promote the ecosystem development in the state of Telangana

**2000-2001**

**Shapoorji Pallonji Biotech Park and**

**ICICI Knowledge Park** were developed [97]

**2002**

**Pharmaceutical Policy, 2002**[98]

Strengthened and encouraged the existing pharmaceutical industry for investments, exports and research

**2017**

India's largest **Medical Devices Park** established by the Government of Telangana[99]

Dedicated ecosystem for medical technology innovation and manufacturing

**2021**

**Uppal-Nacharam**

Emerged as a prominent education and research hub along with the presence of major manufacturing operations[100]

**2021**

**Pandemic bolstered the role of the Lifesciences industry in Hyderabad** with leading companies investing into the emerging ecosystem

The increasing potential of the industry has made it the **global hub for the Lifesciences industry** [101]

**2022**

**Biological E** announces investment of **USD 226 Mn** across three facilities at **Genome Valley**

**Chemveda Life Sciences** announces **USD 20 Mn** investment for R&D center in Hyderabad

**2023**

**Syngene International** to invest **USD 96 Mn (approx. INR 800 cr)** to expand operations in Hyderabad's **Genome Valley** by building 16.5 lakh sq ft of cutting edge research laboratories spread over 17.5 acres.

> **"Our world-class infrastructure, cluster-based approach and availability of manpower continues to help attract major Global and Indian Lifesciences companies to Hyderabad and Telangana."**[102]
>
> Telangana Life Sciences

# Prominent Lifesciences clusters


Map 3 : Location – Lifesciences cluster, Hyderabad

*Illustrative map of Hyderabad

## Genome Valley

- **180+** Pharma and Biotech companies*
- **~20,000** Total workforce*
- **33%** Global vaccine produced in the cluster [103]
- **3** out of 5 leading vaccine manufacturers in India*

## Medical Devices Park

- **45+** Medical Devices and Med-Tech companies*
- **~15,000** Total workforce*
- **USD 196 Mn** Investment announcements by Medical Device companies for their expansions [104]
- Home to the leading Medical Device manufacturers in India*

## Patancheruvu

- **165+** Pharma and Biotech companies*
- **~30,000** Total workforce*
- **20+** Contract Manufacturing Organizations present in cluster*
- **6** out of 10 Leading API manufacturers in the cluster*

## Uppal-Nacharam

- **60+** Pharma and Biotech companies*
- **~10,000** Total workforce*
- **3+** Top Research Universities in the cluster*
- Leading R&D organizations of India present in the cluster*

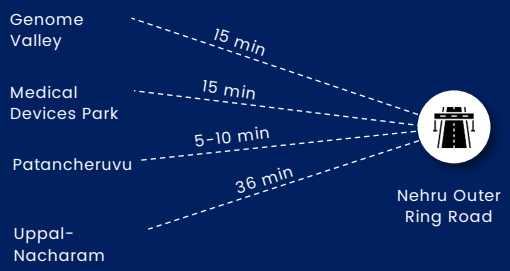
*Based on Rx Propellant research. The data has been derived from the collated list of Lifesciences companies as per their presence in the respective clusters.

# Transport Infrastructure


Map 4 : Transport Infrastructure – Lifesciences cluster, Hyderabad

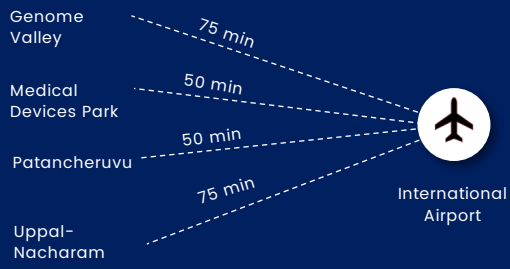
*Illustrative map of Hyderabad

## Convenient access by Road




## Approachable Rail Network


## Easy access to International Airport



# Genome Valley

Spread over 600 sq kms, Genome Valley is India's first organised cluster for Lifesciences R&D and clean Manufacturing activities, with world-class infrastructure facilities.

### Distribution of Lifesciences sectors*

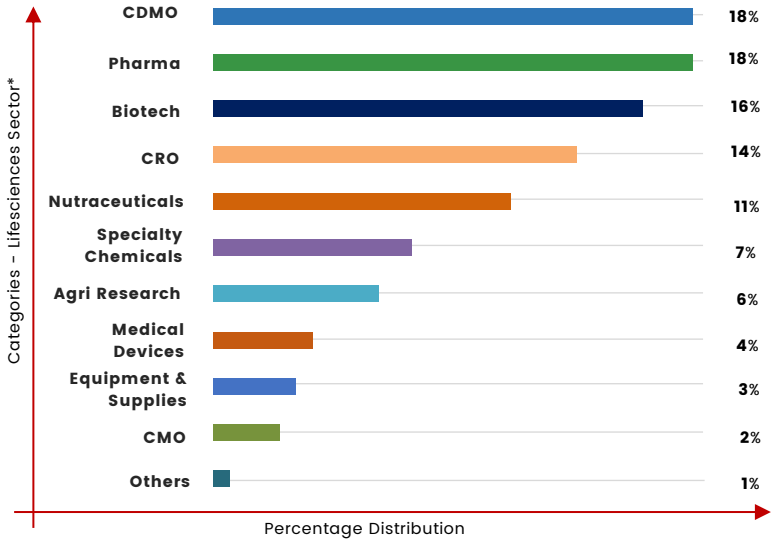



Figure 6 : Distribution of categories under Lifesciences sector in Genome Valley

### Operational distribution*

Genome Valley is a designated lifescience cluster with major sectors operating their Research & Development activities

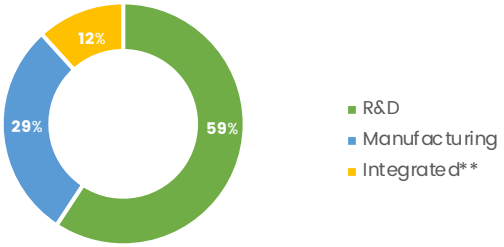



Figure 7 : Distribution of Lifesciences operations in Genome Valley


Map 5 : Social Infrastructure – Genome Valley

*Illustrative map of Genome Valley

### Operational presence of companies:

| Company | | Type | Focus Areas |
|---|---|---|---|
| Sai | Sai Life Sciences [105] | Indian | DMK, Toxicology, Protein Production |
| NOVARTIS | Novartis [106] | Multinational | Cardiovascular, Respiratory, Immunometabolism |
| Biological E. Limited | Biological E Limited [107] | Indian | Formulations, Biologics, Vaccines |
| LAURUS Labs | Laurus Labs [108] | Indian | API, Biologics |
| BHARAT BIOTECH | Bharat Biotech [109] | Indian | Vaccines, Biotherapeutics |
| Syngene | Syngene International [110] | Indian | Discovery, Formulation, Manufacturing |
| JAMP | Jamp Pharma [111] | Multinational | Generics, Nutraceuticals, Cosmeceuticals |
| SAMI LABS | Sami Labs [112] | Indian | Nutraceuticals, Cosmeceuticals, API |
| amneal | Amneal Pharmaceuticals [113] | Multinational | Generics and Specialty Pharma |
| FERRING | Ferring Pharmaceuticals [114] | Multinational | Urology, Oncology, Reproductive Health |

*Based on Rx Propellant research. The percentages are derived from the presence of number of Lifesciences companies under mentioned sectors in Genome Valley.
** Integrated means R&D and Manufacturing operations are within the same premises.

# Patancheruvu

Patancheruvu is a dense manufacturing cluster with high concentration of API manufacturing companies and drug development.

### Distribution of Lifesciences sectors*

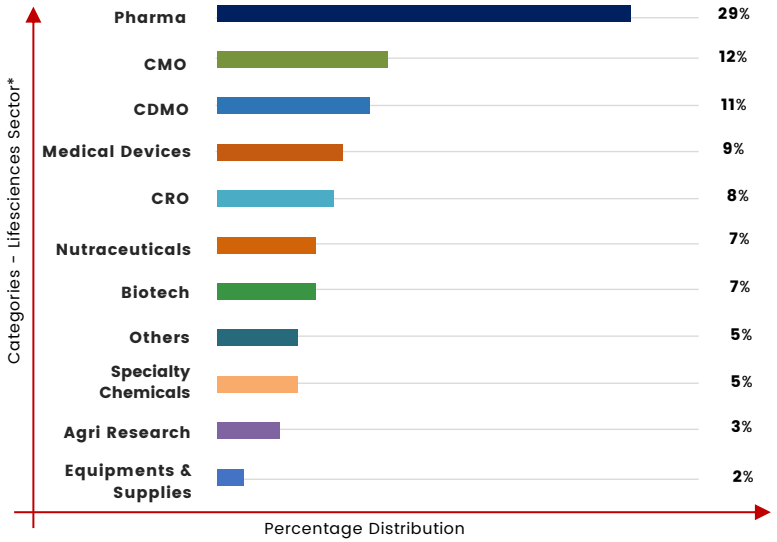



Figure 8 : Distribution of categories under Lifesciences sector in Patancheruvu

### Operational distribution**

Patancheruvu has a major presence of manufacturing operations across diverse sectors.

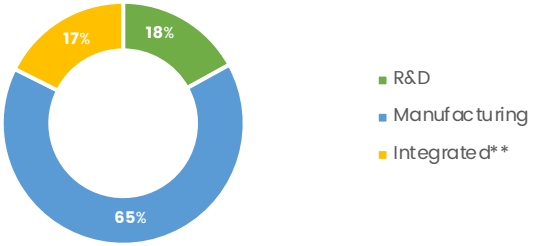



Figure 9 : Distribution of Lifesciences operations in Patancheruvu


Map 6 : Social Infrastructure – Patancheruvu

*Illustrative map of Patancheruvu

### Operational presence of companies:

| Company | Type | Focus Areas |
|---|---|---|
| Aurobindo Pharma [115] | Indian | API manufacturing, R&D, Formulations, Peptides, |
| Virchow Biotech [116] | Indian | Orthopedics, Cosmeceuticals, Oncology, Probiotics |
| Hetero[117] | Indian | API Generics, Biosimilars |
| Viatris [118] | Multinational | Cardiovascular, Oncology, Respiratory , Allergy, Dermatology |
| Divi's Laboratories [119] | Indian | Nutraceuticals, Generic API |
| Dr. Reddy's [120] | Indian | Generics, API, Biologics |
| Gland Pharma[121] | Indian | API, Injectables, Complex molecules |
| Granules [122] | Indian | API, Oncology |
| Piramal Pharma[123] | Indian | API, ADC, Formulations, Clinical Development |
| Suven Life Sciences[124] | Indian | API, Formulations, Intermediates |

*Based on Rx Propellant research. The percentages are derived from the presence of number of Lifesciences companies under mentioned sectors in. Patancheruvu

** Integrated means R&D and Manufacturing operations are within the same premises.

# Uppal-Nacharam

## Uppal-Nacharam is an R&D dense destination with diversity of R&D companies and presence of prominent R&D institutions

### Distribution of Lifesciences sectors*

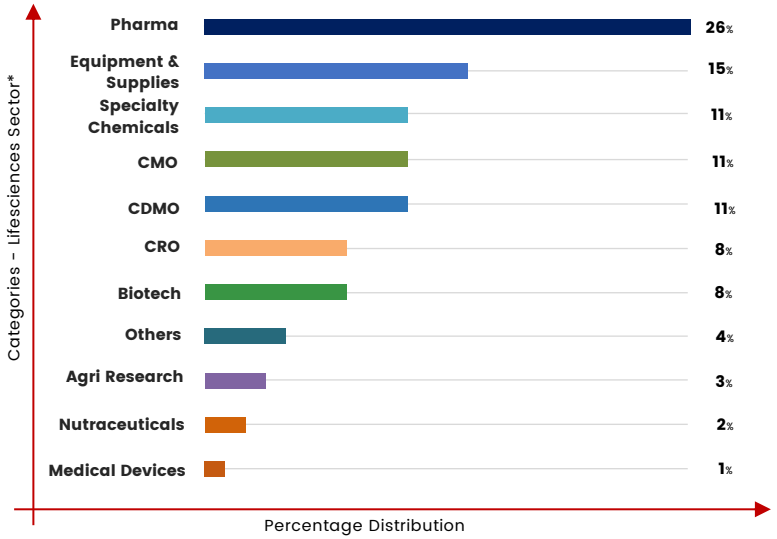



Figure 10 : Distribution of categories under Lifesciences sector in Uppal-Nacharam

### Operational distribution**

## Uppal-Nacharam has dense distribution of R&D as well as Manufacturing operations

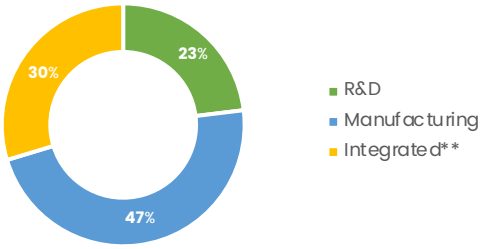
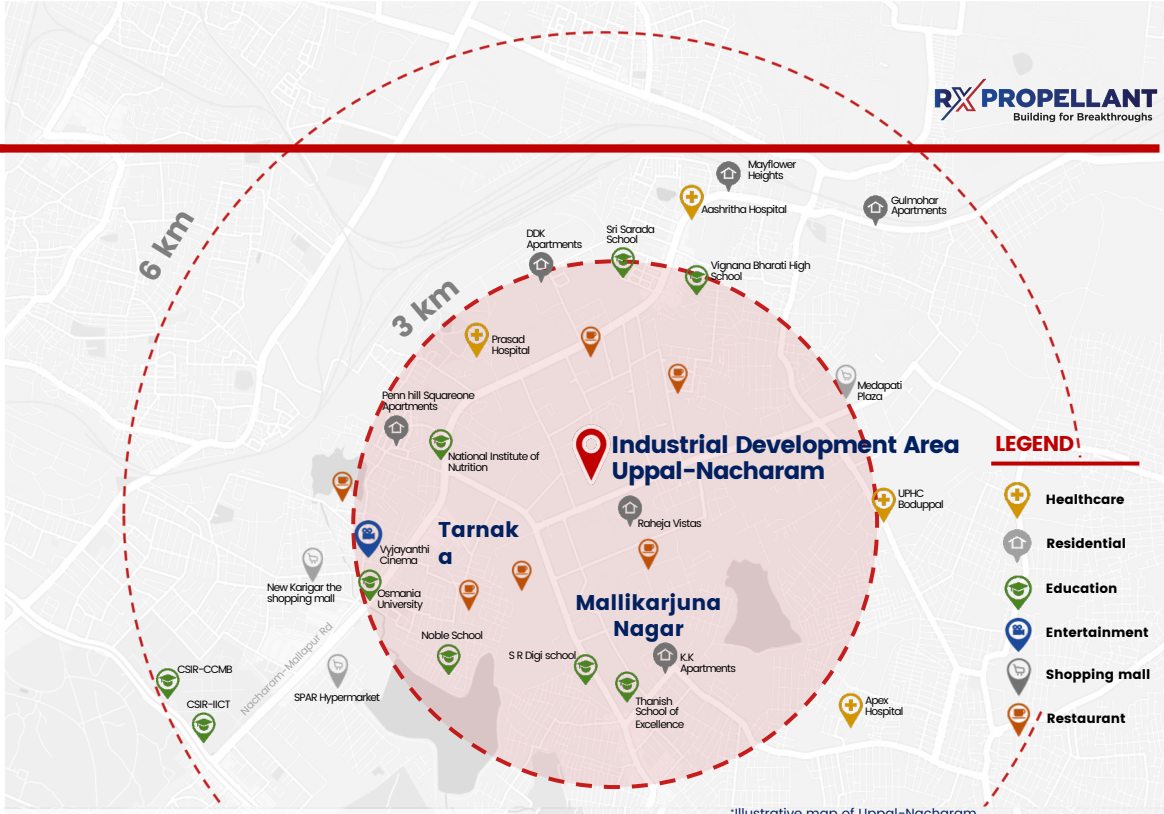



Figure 11 : Distribution of Lifesciences operations in Uppal-Nacharam

*Based on Rx Propellant research. The percentages are derived from the presence of number of Lifesciences companies under mentioned sectors in Uppal-Nacharam.
** Integrated means R&D and Manufacturing operations are within the same premises.




*Illustrative map of Uppal-Nacharam

Map 7 : Social Infrastructure – Uppal-Nacharam

### Operational presence of companies:

| Company | Type | Focus Areas |
|---|---|---|
| Aragen [125] | Indian | Large Molecule, Small Molecule, Drug development |
| R A Chem [126] | Indian | API, Formulation Development |
| Chemveda [127] | Indian | Drug Discovery, Drug development |
| Sri Krishna Pharma [128] | Indian | Drug Development, API Manufacturing |
| Vivimed [129] | Indian | API Manufacturing |
| Avra [130] | Indian | API & FDF Manufacturing |
| DSN Labs [131] | Indian | R&D in Analytical Chemistry |

# Medical Devices Park

Medical Devices Park, Hyderabad is India's largest medical devices park spread over 302 acres with more than 45 companies lining up to set up their Manufacturing / Research and Development facility

**100%**

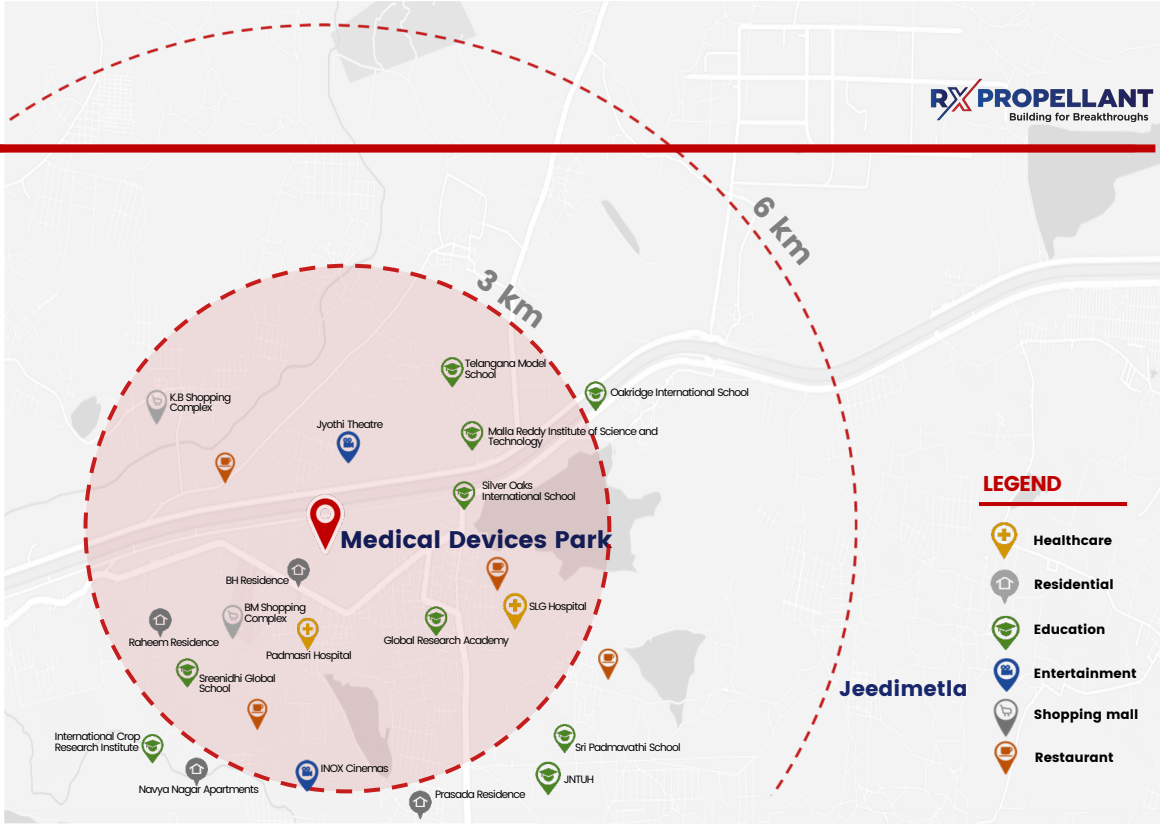
Sector concentration of Medical Devices*

**100%**

Operations are manufacturing of Medical Devices*

> "In a span of few years, Medical Devices Park in Hyderabad has become one of the leading and most attractive R&D and manufacturing destinations for the medical device companies."[142]

KT Rama Rao at BioAsia 2022
Hon'ble Minister of IT, Industries, MA & UD of Telangana State




Map 8 : Social Infrastructure – Medical Devices Park

*Illustrative map of Medical Devices Park

**Operational presence of companies:**

| Company | Type | Focus Areas |
|---|---|---|
| Akriti [132] | Indian | Eye Care |
| Promea Therapeutics [133] | Indian | Immuno & Molecular Diagnostics |
| Arka [134] | Indian | Hospital IT, Disinfectant |
| ManMachine electronics [135] | Indian | Diagnostic, Ultrasound machines |
| SMT [136] | Indian | Cardiovascular, Coronary |
| Medflow [137] | Indian | Eyecare Devices |
| Metron [138] | Multinational | Cardiology, Radiology, Oncology |
| Appidi Technologies [139] | Indian | Laboratory Equipment |
| Elvikon [140] | Indian | Nanotechnology, Microbiology |
| Renaud Bio [141] | Indian | Hospital IT, Disinfectant |

*Based on Rx Propellant research. The percentages are derived from the presence of number of Lifesciences companies under mentioned sectors in Medical Devices Park.

> **We are currently present in 58 countries and have a turnover of USD 2 Bn over a year. We scouted the country for finalizing the location and decided on Hyderabad. Infrastructure, quality talent, advanced education system, and the warm support from the authorities of the state have attracted us to this place.** [143]

Mitchell Pettigrew

Former President and COO, Ferring Pharmaceuticals

# IV.
# Flourishing Lifesciences Companies

1. Sai Life Sciences
2. Novartis
3. Syngene International
4. Bharat Biotech
5. Aragen Life Sciences
6. Aurobindo

# Case Study 1 : Sai Life Sciences

**Sai Life Sciences** is one of India's fastest growing Contract Research Development (CRO) and Manufacturing Organisation (CDMO) headquartered in Hyderabad.

**1999** Setting up of the **1st manufacturing unit** in Genome Valley, Hyderabad (for manufacturing of API and small molecules)*

**2002-2005** **R&D labs and 2nd manufacturing unit** commissioned in Genome Valley, Hyderabad
Drug Discovery from HIT to IND using creative chemistry supported by high quality Biology, DMPK, toxicology and cGMP scale-up services*

**2010-2016** Expansion of Prototype **R&D and Analytical R&D facilities** in Genome Valley, Hyderabad
Lean & 5S approach to enhance productivity and collaborative workspaces for engendering innovation*

**2017-2019** **Pilot scale discovery block in Hyderabad**.
Incorporation of containment facilities in Pilot and Manufacturing sites - 1µg/m3*

**2000** Commencement of **Research & Technology facility** at Genome Valley, Hyderabad
Unique aspects such as intelligent & ergonomic lab design to enhance safety and productivity, advanced automation for seamless data capture during process development*

**2021** Expansion of a **new biology facility** adjoining current Research & Technology facility at Genome Valley, Hyderabad
(In vitro and In vivo biology services, DMPK, toxicology and a vivarium) [144]

**2023** Sai Life Sciences opens research facility with fully equipped labs with 75-member team and made operational in <100 days for Schrödinger at its R&D campus in Hyderabad *

**USD 115.9 Mn**
Revenue from operations (R&D and manufacturing) in India, USA & UK for FY 2022 [145]

**2872**
employees in India, USA & UK as of September 2023 [145]

## Expansions and Collaboration

Sai Life Sciences to invest about USD 56.3 Mn at its integrated R&D campus in Hyderabad by 2023 [146]

Sai Life Sciences commenced recruitment of 100+ scientists for its fast-growing drug discovery business [147]

Sai Life Sciences opened a new 'Sai Life Sciences Eye Care center' in partnership with the LV Prasad Eye Institute which would provide high quality eye care [148]

*Based on the timeline from the company website as of September 2023

RX PROPELLANT
Building for Breakthroughs

"We are an example of what is possible in Hyderabad's rich life sciences ecosystem. Today, as we build world class R&D capabilities and invest in nurturing talent with deep domain expertise, I can unhesitatingly say, Hyderabad is truly a city where pharma dreams are made."[151]

Krishna Kanumuri
CEO & MD, Sai Life Sciences

**Research & Technology facility, Genome Valley, Hyderabad**


The Campus is spread across 13 acres with the facility size of 83,000 sft. [150]

**Expansion of a new biology facility adjoining the existing facility at Genome Valley**


The new facility of 75,000 sft. has an employee strength of 170 biologists [149]

# Case Study 2 : Novartis

**Novartis India** is a leading global pharmaceutical company involved in therapeutic areas such as Ophthalmology, Oncology, Respiratory, Immunology, Dermatology, Cardiovascular, Metabolic and Neurosciences. The company is headquartered in Basel, Switzerland.

**2007** Established presence in Hyderabad with approximately 2300 associates working in support of the development of innovative therapies as part of its global operations [152]

**2014** Setting-up of **R&D unit at Genome Valley**, Hyderabad to offshore **its R&D, clinical development, medical writing and administrative functions.** The center supports operations in pharmaceutical formulation development and analytical testing for Novartis, Sandoz and Alcon [152]

**2020** Launched **Novartis Biome**, a digital lab aiming to scale up, complement and enhance the progress made by start-ups and health innovators in India [154]

**2022** Hyderabad's **Capability Centre** has grown to become the **largest** such centre in India*

**2023** Novartis division Sandoz to set up a global capability centre in Hyderabad to strengthen Hyderabad's leadership in Pharma space*

**USD 50.5 Bn**
Revenue from operations in India for FY 2022 [153]

**9000**
Associates in Novartis Capability Center in Hyderabad as of May 2022 [155]

## Expansions and Collaboration

T-Hub has signed a MoU with Pharmaceutical major Novartis to execute joint program that will benefit health tech start-ups across segments. [156]

### Novartis Capability Center at Hyderabad


*Based on the timeline from the company website as of September 2023

> "As the outfit grew beyond the capacity of our Mumbai head office, the search for a suitable city led to a long list of 23 cities, which was finally narrowed down to four. Hyderabad finally won over the other contenders (Gurgaon, Chennai and Pune) on parameters ranging from existing infrastructure, availability of a talent pool relevant to the business and space for future growth."[157]

Mr. Ranjit Shahani
Ex-Managing Director, Novartis India

> "We do very well in India now and we have double-digit growth here with novel medicines. Our Hyderabad centre is one of the crown jewels of Novartis."[41]

Dr Vasant Narsimhan
CEO, Novartis International AG

### Research & Development Center, Genome Valley, Hyderabad

The facility size of 162,000 sft houses over 500 scientists.[158]

> "Hyderabad has now become their largest center outside their HQ at Basel with about 9000 people and a center of innovation."[155]

Mr. K.T. Rama Rao
Minister for IT and Municipal Administration

# Case Study 3: Syngene International

**Syngene International Ltd.** provides pharmaceutical R&D services encompassing pre-clinical, clinical and manufacturing for small and large molecules . They cater to a wide range of Lifesciences sectors including pharmaceutical, biotechnology, nutrition, animal health and specialty chemical companies. The company is headquartered in Bengaluru.

The key drivers for the expansion in Hyderabad were the availability of vast talent pool in chemistry, robust Lifesciences ecosystem with access to clientele within the Genome Valley cluster and cost efficiency compared to Bengaluru.

**2017** Started exploring avenues to **expand footprint beyond Bengaluru** to Genome Valley cluster in Hyderabad *

**2019** Commissioned its **first R&D center** (outside Bengaluru) in Genome Valley, Hyderabad*

**2020** **Completed the second phase** of the R&D center in the same facility in Genome Valley, Hyderabad with footprint of 94,000 sft housing 270 scientists*

**2022** Started operations at its **new R&D facility** of 100,000 sft opposite to its existing R&D facility in Genome Valley, Hyderabad *

**2023** Plans to expand its activities in its facility in Genome Valley, Hyderabad with an investment of USD 20 million[159]

**USD 287 Mn**
Revenue from operations in India for FY 2021 [160]

**600+**
Scientists working in Hyderabad as of February 2022 [161]

## Expansions and Collaboration

Syngene collaborates with HiMedia Labs to manufacture and distribute ELISA kits [162]

Syngene and 3DC sign 5-year collaboration for discovery projects, from target validation through to pharmacological proof of concept and pre-clinical evaluation [163]

> "The inauguration of this [Syngene R&D center] site in Genome Valley marks an important step for the company. Genome Valley has all the requisite infrastructure and a comprehensive science eco-system to allow us to deliver cutting edge, innovative scientific research." [165]

Jonathan Hunt
CEO, Syngene International

> "One of the reasons why this is being done out of Hyderabad is also to ensure there is a twin site capability that the company can offer from a drug discovery perspective but also because there is more headroom for expansion in Hyderabad than in Bengaluru, where it is headquartered." [161]

Dr Mahesh Bhalgat
COO, Syngene International

**Syngene R&D Center, Genome Valley, Hyderabad**


The facility, spread across c. 100,000 sft, has capacity to house over 300 scientists.[164]

*Based on the timeline from the company website as of September 2023

# Case Study 4: Bharat Biotech

**Bharat Biotech,** headquartered in Hyderabad, is a leading vaccines manufacturer and a biotech company. India's indigenous COVID-19 vaccine - Covaxin® was developed by Bharat Biotech in collaboration with the Indian Council of Medical Research (ICMR) – National Institute of Virology.

**1996** Set up of **Bharat Biotech** in **Genome Valley**, Hyderabad. It is the first company to set up operations in the biotechnology park.*

**1999** **Expansion of capacity to produce 100 million doses** of Revac-B+®.*

**2007** **Launch of BioHib®—**India's first indigenously developed and manufactured Haemophilus Influenza Type B (Hib) vaccine.*

**2010** **Launch of HNVAC®** – India's first cell culture-based H1N1 Swine flu Vaccine.*

**2020** India's 1st indigenous COVID-19 vaccine, COVAXIN® completes phase 1 & 2 clinical trials and commences phase 3 clinical trials across the country.*

**2022** **COVAXIN®** becomes the 1st **COVID-19** vaccine in the world to be rolled out for children.*

**2022** **Bharat Biotech** has won the "Best Production / process development" award as part of the Vaccine Industry Excellence (ViE) awards at World Vaccine Congress 2023.

**USD 980 Mn**
Revenue from operations for FY 2022 [166]

**> 4 Bn**
Vaccine delivered worldwide [167]

## Expansions and Collaboration

Bharat Biotech partners with **CEPI** to develop 'variant-proof' COVID-19 vaccine. [168]

Bharat Biotech has entered a partnership with **Biofabri, a Spanish biopharmaceutical firm**, for the development, manufacturing and marketing of a new tuberculosis vaccine. [169]

Bharat Biotech announces **COVAXIN® production capacity expansion** to support vaccination campaigns ~ 700 million doses/year in India and worldwide. [170]

*Based on the timeline from the company website as of September 2023

RX PROPELLANT
Building for Breakthroughs

**110 +**
global patents

**3 Billion**
vaccines delivered globally

**165+**
countries served

**Facility 1, Genome Valley, Hyderabad : Integrated (R&D and Manufacturing)**

The facility is spread over an area of 150,000 sft. [171]

> "We thank the visionary leadership of the Government in supporting the vaccines industry with bold initiatives and enabling new pharmaceutical industries in Telangana State."[172]
>
> Dr Krishna M. Ella
> Chairman & MD, Bharat Biotech International Limited

# Case Study 5: Aragen Life Sciences

**Aragen Life Sciences** (formerly known as GVK Biosciences) is a leading Lifesciences R&D and manufacturing solutions provider worldwide. The company is headquartered in Hyderabad. It offers integrated and standalone solutions for small and large molecules.

**2001** Establishment of GVK BIO as an Informatics Company in Hyderabad.*

**2002** Expansion of Chemistry Services and signing of first FTE contract.*

**2004** Manufacturing Unit acquired in Nacharam, Hyderabad and expanded into an integrated R&D Campus for Discovery, Development and Manufacturing Solutions.*

**2006** Biology Services added to solutions offering.*

**2007** Dedicated Discovery Chemistry Research Center inaugurated in partnership with Wyeth Research at Nacharam, Hyderabad.*

**2008** First Integrated Discovery Program begins and Fine Chemical Development added to the portfolio*

**2014** 2nd R&D Campus commissioned at Mallapur, Hyderabad with Discovery and Development operations.*

**2017** Fine Chemical Manufacturing Plant setup in Hyderabad.*

**2018** Analytical Development Labs inaugurated at Mallapur, Hyderabad R&D Campus.*

**2019** Formulation Development Center added to Mallapur, Hyderabad R&D Campus.*

**2020** Discovery Services expansion at Mallapur R&D Campus to include a state-of-the-art Compound Management Unit.*

**USD 149 Mn**
Revenue from operations for FY 2022 [173]

**3000+**
Employees across India & USA as of September 2023 [174]

## Expansions and Collaboration

**Aragen Life Sciences** extends their research agreement with **Boehringer Ingelheim** for the integrated upscaling of compounds for larger pre-clinical studies & Biology screening. [175]

Partnership with **Oragenics** to advance TerraCov2, Aragen's SARS CoV-2 vaccine. [176]

Partnership with **Skyhawk Therapeutics** aimed to develop Novel Small Molecule Therapeutics that correct RNA expression. [177]

Aragen signs multi-year partnership with **FMC Corporation** to accelerate Agro-Chemical pipeline. [178]

*Based on the timeline from the company website as of June 2022

> "If you look around, this [contract services] industry is investing in expanding capacities, extending capabilities and widening their geographic footprints to be closer to their customers."[179]
>
> Manni Kantipudi
> CEO, Aragen Life Sciences

**Research Center, Nacharam, Hyderabad**


This facility is spread over an area of ~900,000 sft. [180]

# Case Study 6: Aurobindo Pharma

**Aurobindo Pharma** is a fully integrated pharmaceutical company, involved in development and manufacturing of API and formulations. The company is headquartered in Hyderabad.

**1992** Established manufacturing unit for CMIC Chloride, a bulk drug intermediate near Patancheruvu, Hyderabad.*

**1993** Set up 2 more units-
At Bollarum for manufacturing of antibiotic bulk drugs
At Kukatpally for manufacturing of pharmaceutical formulation.*

**2008** Awarded with ARV contract worth Rs 70 crores for 3 products which are WHO / USFDA pre-qualified by National Aids Control Organization (NACO).*

**2012** Commencement of peptide segment- AuroPeptide, to deliver cGMP material.*

**2021** Launched specialised characterisation centre with state-of-the-art equipment at Hyderabad research centre.*

**2022** Acquired domestic formulations business of Veritaz Healthcare.*

**2023** Formulation manufacturing facility (Unit III) in Hyderabad, received EIR from U.S. FDA [181]

**USD 1.97 Bn**
Revenue from operations for FY 2021 [182]

**1600+**
Employees working as of March 2022 [183]

**2nd**
Largest listed Indian pharmaceutical company (by revenues) [183]

**12**
API Intermediate and Formulation units [183]

## Expansions and Collaboration

The **Council of Scientific and Industrial Research (CSIR)** and **Aurobindo Pharma** announced a collaboration for the development of Covid-19 vaccine. [185]

Aurobindo Pharma arm **CuraTeQ** expands scope of distribution pact with Orion. [186]

Hyderabad-based Aurobindo Pharma made its brand of **Molnupiravir-Molnaflu** available widely in India. [187]

*Based on the timeline from the company website as of June 2022

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> "With Aurobindo's ability to build a product portfolio and with the existing and expanding distribution network of Veritaz, we will be able to create a significant footprint in the domestic pharma market over the next few years."[184]
>
> K Nithyananda Reddy
> Managing Director, Aurobindo Pharma

**Research and Development center, Patancheruvu, Hyderabad**

This facility is of 139,930 sft with employee strength of over 700 [188]

**Manufacturing Unit, Patancheruvu, Hyderabad**


The built-up area of the facility is 215,278 sft dedicated for generic drug manufacturing [189]

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RX PROPELLANT
Building for Breakthroughs

# Building cohesive ecosystems that foster science and innovation

## ABOUT US

Rx Propellant is an Actis platform focused on Lifesciences Real Estate, created with a vision to build world-class Lifesciences clusters in India. The projects are designed with best-in-class specifications to integrate diverse operations from concept to commercialisation. The platform is uniquely positioned to induct companies of all sizes and scales in cohesive ecosystems that enable collaboration and access to a vast talent pool to nurture the science of tomorrow.

Rx Propellant has a current development portfolio of ~6.5 Mn sft with multiple projects in Genome Valley (Hyderabad), one in Bengaluru and one in Mumbai. The projects are designed to be single or multi-tenanted, with an opportunity of providing built-to-suit accommodations for future expansion of tenants within the same premises.

## **INFRASTRUCTURE SOLUTIONS** for diverse needs

### R&D Labs

- Chemistry & Biology Labs
- Clean Rooms
- Vivarium
- Pilot Plants

### FLEXI Factories

- Manufacturing Units
- Formulation Plants
- Packaging Centres
- Fill-Finish Operations

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