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(भारत सरकार का एक सांविधिक निकाय)

(शिक्षा मंत्रालय, भारत सरकार)

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ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

(A Statutory Body of the Govt. of India)

(Ministry of Education, Govt. of India)

Nelson Mandela Marg, Vasant Kunj, New Delhi-110070

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CIRCULAR

To

**All Vice Chancellors of Technical Universities and
All Directors/ Principals of AICTE Approved Institutions,**

Subject: Employment Opportunity in Biotech Industry in Singapore.

Sir/Madam,

Singapore Government's Deep Tech Investment Agency (SG Innovate) has released an assessment report that predicts a severe shortage (of almost 30%) in the availability of manpower for the biotech sector in Singapore. The assessment, forecasts that the number of biotech companies in Singapore will grow from 52 to 84 by 2032, with 36 being clinical-phase companies and 39 being pre-clinical phase companies. The shortage is predicted to be especially acute in R&D, production, regulatory affairs and business management.

While the talent gap remains a perennial issue for biotech companies globally, the demand for expertise in these areas presents an opportunity for researchers and academia to gain industry exposure, particularly to India Students.

You are therefore requested to create an awareness among students and faculty about the huge employment potential in this area and motivate them to avail this opportunity as a career in Biotech. A copy of the aforesaid document could be put up on the Notice Board of your Institute.

Regards

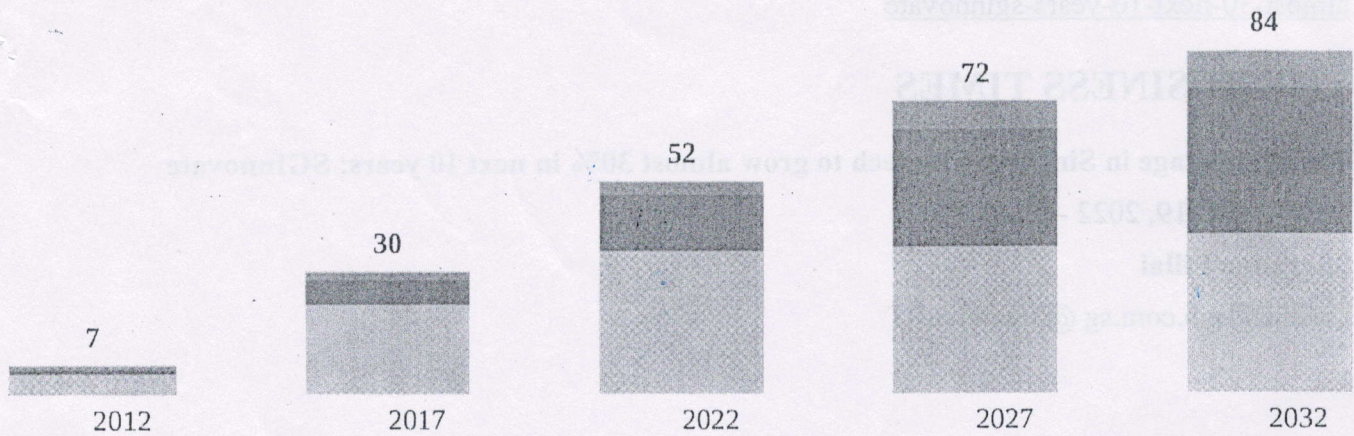
(Dr. Ramesh Unnikrishnan)

Advisor-II

Policy & Academic Planning Bureau

Singapore's growing biotech scene

Pre-clinical Clinical Commercialised



For 2012 & 2017: Number of companies in their respective phases back-calculated based on average time taken to progress across phases

Chart: BT Design Source: Speeda, company websites, Assobiotech, EDB, LEK research and analysis

1/13/23, 7:07 PM

Talent shortage in Singapore biotech to grow almost 30% in next 10 years: SGIInnovate , Garage - THE BUSINESS...

Projected biotech talent gap in Singapore

Company phase	Pre-clinical		Clinical	
	2022	2032	2022	2032
C-suite/board	20	18	0	36
Manager	70	52	28	50
Junior	20	6	16	37

Table: BT Design Source: LEK interviews, research and analysis

<https://www.businesstimes.com.sg/startups-tech/startups/talent-shortage-singapore-biotech-grow-almost-30-next-10-years-sginnovate>

THE BUSINESS TIMES

Talent shortage in Singapore biotech to grow almost 30% in next 10 years: SGInnovate

MON, DEC 19, 2022 - 03:58 PM

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THE shortage of biotech talent in Singapore is set to widen by 29.2 per cent over the next decade as the sector expands, according to a report released by deep tech investor SGInnovate on Monday (Dec 19).

Authored by global strategy firm LEK Consulting, the report forecasts that the number of biotech companies in Singapore will grow by over 61.5 per cent between 2022 and 2032, from 52 to 84.

The number of clinical-phase companies is expected to more than double to 36 in the next 10 years, while those in the commercial phase are expected to grow from three to nine. The number of pre-clinical companies, which has grown rapidly since 2012, is expected to stand at 39 in 2032.

Biotech startups are a key engine of innovation, as global pharma companies pursue a strategy of acquiring, co-developing with or licensing therapeutics from smaller biotech companies. While the outlook for Singapore as a biotech hub is positive, talent is a key constraint.

The shortage in the number of personnel is set to grow 30 per cent, from 154 in 2022 to 199 in 2032, the report predicts. Key roles facing the shortage include research and development, production, regulatory affairs and business management.

It is mainly biotech companies in the clinical stage that are set to face shortages, across junior, manager and C-suite roles. The gap is most critical at the C-suite level, with the need for professionals that can support business management activities such as fundraising and business direction.

Managers who drive vendor and third-party engagement would also be in shortage.

In contrast, the talent gap is expected to narrow for pre-clinical companies, as research professionals flock to these companies for hands-on industry experience with these early-stage players, the report said.

To address the talent crunch, the report recommends that biotech companies accelerate career progression for experienced juniors reaching managerial level, through rotations and secondments. Incentives could also be provided for talent to relocate from overseas.

Meanwhile, biotech companies should be incentivised to conduct their phase II and III clinical trials locally, to allow professionals to gain experience with industry-level operations. Phase II trials involve testing a drug in a larger group, while phase III trials compare the safety and efficacy to existing treatments, before commercialisation.

“Singapore can also position itself as a facilitating hub for trials in the Asia-Pacific region, especially for local and overseas biotech companies that target this market,” the report said.

It also suggested that pre-clinical research organisations could be set up in Singapore, to provide professionals with opportunities to manage the outsourcing of experiments in pre-clinical settings.

SGInnovate will work with industry stakeholders to support biotech talent development based on the report’s insights, said Juliana Lim, the organisation’s executive director for talent.

“While the talent gap remains a perennial issue for biotech companies globally, the demand for expertise in these areas presents an opportunity for researchers and academia to gain industry exposure,” she added.
