பிசிஜி தடுப்பூசி ஆய்வகம், சென்னை

बीसीजी वैक्सीन प्रयोगशाला, चेन्नई

BCG Vaccine Laboratory, Chennai

cGMP Compliant Vaccine Manufacturing facility

Azadi Ka Amrit Mahotsav

G20 भारत 2023 INDIA

वसुधैव कुटुम्बकम्

ONE EARTH • ONE FAMILY • ONE FUTURE

Annual Report 2022 - 2023

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पूर्व अध्येता संक्रामक रोग (पीडीएचएनएच, मुम्बई)
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निदेशक
वी.सी.जी. वैक्सीन प्रयोगशाला
भारत सरकार
स्वास्थ्य एवं परिवार कल्याण मंत्रालय
स्वास्थ्य सेवा महानिदेशालय

Dr. NAVEEN KUMAR GUPTA, M.D.
MBBS (UCMS, Delhi), **MD** Microbiology (MAMC, Delhi)
Ex-Fellow Infectious Diseases (PDHNH, Mumbai)
Expertise : Microbiology, Infectious Diseases, Zoonoses, Vaccinology

DIRECTOR
BCG VACCINE LABORATORY
Government of India
Ministry of Health & Family Welfare
Directorate General of Health Services

Ex-Head, Centre for Arboviral & Zoonotic Diseases, National Centres for Disease Control, Delhi - 110 054
Ex-Head, NSEC, RRC, DR Lab, DPT Vaccine, Central Research Institute, Kasauli, Himachal Pradesh

Director's Message

Greetings from BCG Vaccine Laboratory, Chennai.

I assumed charge as director of BCGVL on 19th, January 2021, it gives me an immense pleasure in bringing out the annual report of BCGVL for the year 2022-23.

The production of commercial batches from the cGMP compliant facility was initiated in December 2019 and BCGVL has supplied 170 lakh doses to 15 consignees all over India from July 2020 to March 2021 for Universal Immunization Programme (UIP). For the Financial Year 2021-22, BCGVL has supplied 196.9 lakh doses to 24 consignees all over India. For the Financial Year 2022-23, BCGVL has supplied 177.1 lakh doses of BCG vaccine to 15 consignees all over India to UIP.

A new cold room for storage of BCG vaccine has been constructed and RMG has been installed in BCGVL. Animal house upgradation has been initiated by CPWD which is likely to be completed in Financial Year 2023-24.

It gives me immense pleasure to say that a new location for BCG Vaccine production has been identified at Tambaram site in Chennai for upscaling the vaccine production and supply in India.

I take this opportunity to acknowledge the co-operation, hard work and diligence of all the members of BCGVL family and extend my thanks to Directorate General Health Services and Ministry of Health & Family Welfare for their continued support, guidance and encouragement to make BCGVL as current Good Manufacturing Practices (cGMP) compliant state of art facility for production of BCG vaccine at par with National & International Vaccine production Institutes in terms of quality by design and technology with World Class Quality Control & Quality Assurance protocols. It is also an opportunity for me to lead this premier organization by ensuring vaccine production and supply to make Universal Immunisation Programme a great success in India.

25/4/23

Dr. Naveen Kumar Gupta
Director, BCGVL

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PREFACE

BCG Vaccine Laboratory, Chennai is a sub-ordinate office of the Directorate General of Health Services (DGHS) under the Ministry of Health and Family Welfare, Government of India. It was established on 1st May, 1948 with the assistance of Staten's Serum Institute (SSI), Copenhagen, Denmark.

The mandates of this Laboratory are:

To manufacture and supply of freeze dried BCG Vaccine to Universal Immunization Programme (UIP) of the Government of India for the control of Childhood Tuberculosis.

The BCG-DANISH-1331 seed strain, which is being used at BCGVL, was initially obtained from Staten's Serum Institute (SSI) Copenhagen, Denmark through World Health Organization (WHO) for production of liquid BCG Vaccine. Until the year 1973, liquid form of BCG vaccine was manufactured at BCGVL. Later this lab has switched over to freeze dried form in ampoules. Subsequently, the production of BCG vaccine was changed from ampoules to vials as 10 doses/vial from 2000-2001 onwards. This Laboratory has also been involved in manufacturing of BCG Cancer Immuno-therapeutic (40 mg/ml) for use in Urinary bladder cancer therapy since 1993.

LIST OF STAFF

Sl.No	Designation	Name (Shri/Smt)
1	Director	Dr. Naveen Kumar Gupta
2	Consultant (Micro)	Dr.B. Sekar
3	Chief Medical Officer (SAG)	Dr. Hassan Thuddathifanuge
	GROUP-B (Gazetted)	
4	Veterinarian	Dr. S. Anand
	Group-B (Non-Gazetted)	
5	E&M Supervisor	R. Anandan Padvi Shirish Bapu
6	Asst. Technical Officer	K. Ekambaram M.R. Jayanthi
7	Junior Statistical Officer	S. Andrew
	GROUP-C	
8	Office Superintendent	V. Indra
9	Animal Supervisor	B. Ananthi
10	Technical Supervisor	R. Balaje M.G. Rajasekhar A. Revathi P. Sasikala K. Raji S. Sudhendhira Devi D. Hema V. Nalina Jancy
11	Scientific Assistant	S. Rajalakshmi T.S. Karthigai G. Ravisankar S. Harini Priyaadarshini P. Saravana Kumar A. Sheshalakshmi M.P. Natarajan K. Gunasekaran
12	Senior Lab. Assistant	A. Titus Sengol Raj M. Krishnan
13	Laboratory Assistant	C.K.Venkatesan A. Arulmadhan P. Chandrasekaran V. Kathiravan L. Chithra T. Venkatesa Lal Bahadur

Sl.No	Designation	Name (Shri/Smt)
14	Technician	R. Narayanan D. Selvam
15	Mechanic	K.K. Joseph L. Kathirvel M. Suresh V.R. Jagadish Suri J. Dhandapani A. Murali
16	Assistant Mechanic	S. Mohan
17	Upper Division Clerk	G.Vijay T.Vairavel M. Jayashankar D. Joycemani
18	Storekeeper	M.K. Gurumurthy
19	Lower Division Clerk	R. Gopi T. Babu
20	Motor Driver	L. Agasthiyar B. Sathiyadass
21	Carpenter	J. Ciril Raj
22	Lab. Attendant	M. Madhavan B. Kumar A.S. Khumar R. Sampath A. Suriyakala E. Senthil Kumar K. Babu V. Kennedy R. Madanagopal D.B. Sase Kumar M. Samy Kumar J. Mahalakshmi Kumar Natwar Singh M. Elumalai K. Selvaraghu R. Panchavarnam V. Kannan
23	Multi-Tasking Staff	K. Umar Ali B. Jayakumar G.Vidya Bharathi V. Neelambari Shankar Lal Meena

List of Committees

1. Departmental Screening Committee

S.No	List of Officers/ Officials	Designation
1	Dr Hassan Thuddathifamuge, CMO(SAG)	Chairman
2	Dr S Anand, Veterinarian	Member
3	Shri A Krishna Kumar, AO	Member

2. RR committee for Group C posts

S.No	List of Officers/ Officials	Designation
1	Dr. Hassan Thuddathifamuge, CMO(SAG)	Chairman
2	Dr. S. Anand, Veterinarian	Member
3	Shri A. Krishna Kumar, AO	Member
4	Shri R. Anandan, EMS	Member
5	Shri Padvi Shirish Babu, EMS	Member
6	Shri K. Ekambaram, ATO	Member
7	Shri R. Balaje, TS	Member
8	Smt V. Indra, Office Superintendant	Member
9	Shri G. Vijay, UDC	Member
10	Shri P. Chandrasekaran, Lab Assistant	Member

3. RR committee for Group A & B posts

S.No	List of Officers/ Officials	Designation
1	Dr. B. Sekar, Consultant	Chairman
2	Dr. Hassan Thuddathifamuge, CMO(SAG)	Member
3	Dr. S. Anand, Veterinarian	Member
4	Shri. A. Krishna Kumar, AO	Member

4. Purchase committee

S.No	List of Officers/ Officials	Designation
1	Dr. Hassan Thuddathifanuge, CMO(SAG)	Chairman
2	Dr S. Amuthavalli, Deputy Director, KIPMR	Member
3	Smt. Soniya Vijayanandan, TO, NSTI	Member
4	Dr. S. Anand, Veterinarian	Member
5	Shri R. Anandan, EMS	Member
6	Shri M.K. Gurumurthy, Store Keeper	Member
7	Shri. M. Jayasankar, UDC	Member

5. Preventive Vigilance Committee

S.No	List of Officers/Officials	Designation
1	Shri A. Krishna Kumar, AO	Member
2	Smt V. Indra, Office Superintendant	Member
3	Shri G. Vijay, UDC	Member
4	Shri M. Jayshankar, UDC	Member

6. Estate Committee

S.No	List of Officers/ Officials	Designation
1	Dr. B. Sekar, Consultant	Chairman
2	Dr. S. Anand, Veterinarian	Member
3	Shri A. Krishna Kumar, AO	Member
4	Smt V. Indra, Office Superintendant	Member

7. Technical Committee

S.No	List of Officers/ Officials	Designation
1	Dr. B. Sekar, Consultant	Chairman
2	Dr. S. Anand, Veterinarian	Member
3	Shri R. Anandan, EMS	Member
4	Shri Ekambaram, ATO	Member
5	Smt M. R. Jayanthi, ATO	Member
6	Shri S. Andrew, JSO	Member
7	Shri R. Balaje, TS	Member

8. Complaints committee for prevention of sexual harassment of working women at workplace

S.No	List of Officers/ Officials	Designation
1	Dr. S. Amudhavalli, Dy Director, KIPM&R	Chairperson
2	Dr S. Anand, Veterinarian	Member
3	Shri A. Krishna Kumar, AO	Member
4	Smt V. Indra, Office Superintendant	Member
5	Smt M. R. Jayanthi, Assistant Technical Officer	Member
6	Smt A. Revathi, Technical Supervisor	Member
7	Ms. D. Joyce Mani, UDC	Member

9. Civil/ Electrical Committee

S.No	List of Officers/ Officials	Designation
1	Dr. T.F. Hassan, CMO(SAG)	Chairman
2	Dr. S. Anand, Veterinarian	Member
3	Shri A. Krishna Kumar, AO	Member
4	Shri R. Anandan, EMS	Member
5	Shri Ekambaram, ATO	Member
6	Shri R. Balaje, TS	Member

10. Cadre Review Committee

S.No	List of Officers/ Officials	Designation
1	Dr. B. Sekar, Consultant	Chairman
2	Dr. Hassan Thuddathifanuge, CMO(SAG)	Member
3	Dr. S. Anand, Veterinarian	Member
4	Shri A. Krishna Kumar, AO	Member Secretary
5	Shri K. Ekambaram, ATO	Member
6	Shri R. Balaje, TS	Member
7	Shri V. Kennedy, Laboratory Peon	Nominated members by Office Council (Staff Side)
8	Shri Padvi Shirish Babu, EMS	

11. Condemnation Committee

S.No	List of Officers/ Officials	Designation
1	Shri A. Krishna Kumar, AO	Chairman
2	Shri R. Anandan, EMS	Member
3	Shri K. Ekambaram, ATO	Member
4	Shri R. Narayanan, Technician	Member
5	Shri R. Balaje, TS	Member
6	Shri M. K. Gurumurthy, Store Keeper	Member

12. Transport Committee

S.No	List of Officers/ Officials	Designation
1	Shri R. Anandan, EMS	Chairman
2	Shri D. Selvam, Technician	Member
3	Shri M. Suresh	Member
4	Shri L. Agasthiyar / Shri B Sathiyadoss, Motor Driver	Member

13. Annual Report Committee

S.No	List of Officers/ Officials	Designation
1	Dr. Hassan Thuddathifanuge, CMO(SAG)	Chairman
2	Dr. S. Anand, Veterinarian	Member
3	Shri S. Andrew, JSO	Member
4	Shri R. Balaje, TS	Member

Founders of BCG Vaccine

Dr.Albert Calmette

1863-1933

Dr.Camille Guerin

1872-1961

History of BCG Vaccine

In 1900 Albert Calmette and Camille Guérin began their research for an antituberculosis vaccine at the Pasteur Institute in Lille. They cultivated tubercle bacilli on a glycerin and potato medium but found it difficult to produce a homogeneous suspension of the bacilli. In an attempt to counteract their tendency to clump they tried the effect of adding ox bile to the medium and, to their surprise, they noted that subculture led to a lowering of the virulence of the organism. It was this fortuitous observation that led them to undertake heir long term project of producing a vaccine from this attenuated tubercle bacillus.

In 1908, starting with a virulent bovine strain of tubercle bacillus supplied by Nocard (originally isolated by him in 1902 from the udder of a tuberculous cow), they cultured it on their bile, glycerine and potato medium and then proceeded to subculture at roughly three weekly intervals. By 1913 they were prepared to initiate a vaccination trial in cattle which was interrupted by outbreak of World War I. Subculturing was continued throughout the German occupation of Lille, despite the greatly increased cost of potatoes and the difficulty of obtaining suitable ox bile from the abattoir. Yet, they managed to obtain this by grace of the veterinary surgeons of the German occupying force. By 1919, after about 230 subcultures carried out during the previous 11 years, they had a tubercle bacillus which failed to produce progressive tuberculosis when injected into guinea pigs, rabbits, cattle, or horses. At Guerin's suggestion, they named it Bacille Bilie Calmette-Guerin; later they omitted "Bilie" and so BCG was born.

BCGVL History Source :https://www.ncbi.nlm.nih.gov

Brief History of BCGVL

Pioneers

1	Dr.Paul Lind	Statens Serum Institute Copenhagen, Denmark,Consultant
2	Dr.K.S.Ranganathan	Director
3	Shri A.V.Oommen	Assistant Bacteriologist
4	Shri Mohan Rao	Laboratory Assistant
5	Shri P.K.Mukundan	Laboratory Assistant
6	Shri A.Subramani	Laboratory Peon
7	Shri James Dorairaj	Laboratory Peon
8	Kum. Pramila	Lower Division Clerk

Important Milestones

1948	Laboratory for production of BCG Vaccine was built by Government of India at King Institute, Guindy, Madras, with assistance from UNICEF and a center for vaccination was also opened
1972	BCG vaccine was supplied in ampoules in liquid form.
1973	Introduced production of BCG Vaccine Freeze Dried form (50 doses/ampoule)
1982	Introduced BCG Vaccine in 20 doses/ampoule
1995	Prepared the Manufacturers working seed lot
2001	Changed BCG Vaccine from ampoules to vials.
2019	Initiated manufacturing of Commercial batches of BCG Vaccine in new cGMP facility.
2020	Initiated the supply of BCG Vaccine from new cGMP facility to Universal Immunization Programme, Government of India.

List of Directors of BCGVL

Sl.No.	Name	From	To
1.	Dr.K.S.Ranganathan	01.05.48	02.06.57
2.	Dr.C.B.D'silva	03.06.59	28.10.66
3.	Dr.J.C.Suri	28.07.67	26.06.71
4.	Dr.K.P.Rao	10.09.71	30.01.82
5.	Dr.S.Basu	10.11.82	31.05.93
6.	Dr.M. Jayasheela	30.06.93	06.11.98
7.	Dr.N. Elangeswaran	11.11.98	31.07.08
8.	Dr.C.H.D. Vinodkumar (I/C)	31.07.08	26.07.09
9.	Dr. Usha Soren Singh	27.07.09	30.04.12
10.	Dr. H.G. Bramhne	24.05.12	27.07.18
11.	Dr. B.Sekar	04.08.18	04.03.20
12.	Dr.T.F.Hassan (Addl Charge)	11.03.20	16.08.20
13.	Dr.V.K.Chadha (Addl Charge)	17.08.20	27.09.20 (FN)
14.	Dr.S.Uma Shankar (Addl Charge)	27.09.20 (AN)	18.01.21
15.	Dr.Naveen Kumar Gupta	19.01.21	Till date

Establishment of cGMP facility for Manufacturing BCG Vaccine

- ★ As part of revival project a new cGMP facility for manufacturing BCG Vaccine was made and handed over in March 2016 through M/s HLL (Project management consultant) at the sanctionedproject cost of Rupees 64.70 crores.
- ★ BCGVL undertaken production of trial batch and successfully completed consistency batch production of BCG Vaccine in June 2018.
- ★ Joint inspection by Regulatory Authorities for the grant of manufacture and sale license was carried out in the month of September 2018.
- ★ Manufacture and Sale Licence (Commercial Licence) was granted in October 2019.
- ★ Manufacturing of Commercial batches of BCG Vaccine was initiated in Dec 2019.
- ★ BCGVL initiated the supply of BCG Vaccine to Universal Immunization Programme, Government of India in the month of July 2020 as committed.
- ★ BCGVL had committed to supply 170.0 lakh doses for FY 2020-21. Out of which BCGVL successfully completed supply of 161.45 lakh doses (95%) to 15 consignees spread over 9 states within the time schedule in the midst of prevailing COVID situation for the Financial year 2020-21.
- ★ Supply of 8.55 (5%) Lakhs doses were deferred on the request of the consignee and the same was supplied in August 2021.
- ★ For the FY 2021-22, BCGVL has committed to supply 270 lakh doses to Universal Immunization Programme, Government of India. 196.9 lakh doses were supplied and the remaining to be supplied by June 2022 as per the revised consignee list.

Administration Section

List of Staff in Administration and Accounts Section

S.NO	NAME (Sri/Smt)	DESIGNATION
1	V. Indra	OS
2	G. Vijay	UDC
3	M. Jayasankar	UDC
4	D. Joycemani	UDC
5	R. Gopi	LDC
6	T. Babu	LDC
7	L. Agasthiyar	MOTOR DRIVER
8	B. Sathiyadoss	MOTOR DRIVER
9	G. Vidya Bharathi	MTS
10	V. Neelambari	MTS

Court Cases

Number of cases handled in CAT, Chennai	13
Number of cases handled in High Court of Madras	08
Total	21
Less: Number of cases settled during 01.04.2022 to 31.03.2023	07 (3 in CAT and 4 High Court of Madras)
Total Number of cases pending as on 31.03.2023	14

List of Minor works carried out by CPWD and their estimates for the period from 01.04.2022 to 31.03.2023

Sl.No	Minor Works	Estimate
1	Renovation of type V Qtrs in BCGVL	Rs. 3,57,271 (revalidated)
2	Cleaning of UG Sump and Over head water storage tanks in BCGVL office premises	Rs. 76,000/-
3	Construction of one additional cold storage room in BCGVL office premises	Rs. 38,81,900/-
4	Construction of damaged compound wall in BCGVL office premises	Rs. 10,98,500/-
4	Upgradation of Animal House (First Floor) at BCGVL office premises	Rs. 30,00,000/- (First Instalment)
4	Maintenance of Electrical Installations etc. BCG Staff Quarters	Rs. 14,71,392/-

Budget as on 31.03.2023

As On	B.E.	R.E.
31.03.2023	305,900,000	279,000,000

PRODUCTION SECTION

Facility Description

The manufacturing block ismindependent cGMP facility dedicated only for manufacturing of BCG Vaccine. The block consists of ground plus two floors, in which the upstream process is done in the first floor (Media preparation, Culture propagation, Harvesting and Final bulk preparation), downstream process in the ground floor (Containerization, Vial inspection and labeling) .The required classification is maintained by the HVAC system controlled by BMS.

All the critical process of manufacturing are carried out in the Biosafety level 2 area (Grade A) with background of Grade B classification. Starting from seed Revival to preparation of final bulk is to be undertake in the first floor of the cGMP compliant manufacturing facility. The production facility well equipped with all essential machine /equipment. The equipment are validated as per Master Validation Plan. The manufacturing process is under taken as per the Master Formula Record following the required protocols and SOP's. Every stage of the production is recorded in the Batch Manufacturing Record.

The upstream process comprises of Material arranging & sterilization, Media preparation, Propagation, Harvesting and preparation of Final bulk. The upstream facility has dedicated glassware washing and garment washing in first floor backside. In media preparation the following media are prepared.

Growth Media

1. Sauton potato
2. Sauton medium

Buffer

1. Phosphate Buffer

Stabilizer

1. 1.5% Mono sodium glutatmate

UPSTREAM PROCESS

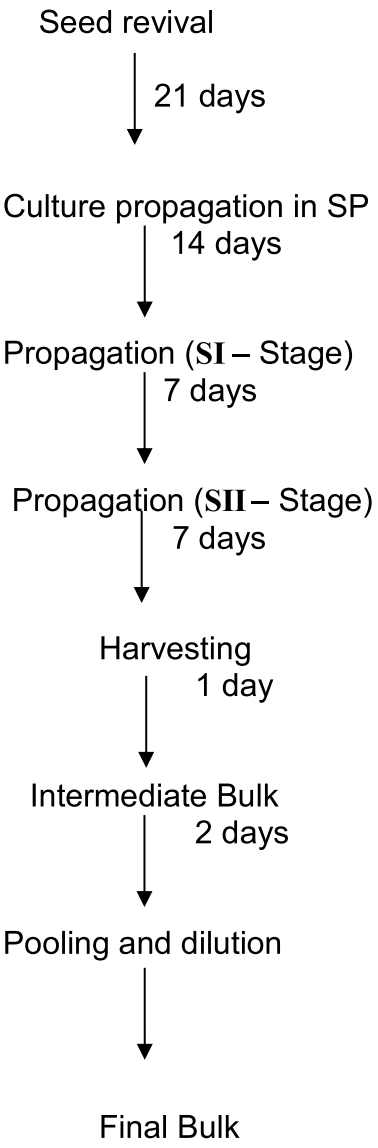
Seed revival: The BCG Seed lot MWSL (Danish1331) is revived in sautonpotato medium. The inoculated tubes are incubated at 37 ˚C for 21 days.

Propagation: Production involves three stages of subculture. The revived culture is transferred to sauton potato medium incubated at 37 ˚C for 14 days, then to satuon liquid medium (100 ml) in conical flask, incubated at 37 ˚C for 7 days and then to sauton liquid medium (200 ml) in tuberculinflask, incubated at 37 ˚C for 7 days.

Harvesting:After the incubation period, the culture grown in tuberculin flask are harvested using Birkaugh's apparatus, the wet cake is weighed, homogenized using BCG Mill. The cake is diluted using mono sodium glutamate 1.5% and made to 40mg/ml suspension. The individual culture suspension is aspirated and stored at-28˚C.This is intermediate bulk. The inprocess sterility on the intermediate bulk is performed.

Final Bulk:The suspension passing the-in process sterility is pooled and diluted to 10mg/ml using stabilizer 1.5% w/v mono sodium glutamate. This is the final bulk which is given to filling section for containerization.

Flow chart of Upstream Process



Training undergone from April 2022 to March 2023

Hands on training

- **Propagation of BCG culture (SP3 to SP4, SP3 to SP3SI, SP3SI to SP3SII).**
- **BCG Culture Grinding.**

Activities performed from April 2022 to March 2023 in production department

- Seed revival was performed three times on 21/04/2022, 13/07/2022, 05/10/2022 and one revival proposed on 01/03/2023.
- Total number of subculture done 60 and 1 subculture will be carried out on 24/03/2023.
- Total number of Harvesting done 20.
- Total volume of suspension made 74,988 ml (40 mg/ml).
- Total number of Pooling made 28.
- Total volume of suspension given to containerization was 2,60,410 ml (10mg/ml).
- Total volume of Sauton media prepared 420 liters and 5 liters will be prepared on 22.03.2023 .
- Total volume of Mono Sodium L Glutamate prepared was 387 liters.
- Total volume of Phosphate buffer prepared was 155 liters.
- Total volume of Soya bean Casein Digest Medium prepared was 103.25 liters for Media Filling.

List of the Equipment and Instruments available inthe department as on March 2023 (Front side)

S.No	Name of the Equipments and Instruments
1.	Bio safety cabinet
2.	Incubator
3.	Autoclave
4.	Media & Buffer Preparation Vessel
5.	CIP – trolley
6.	Media dispenser
7.	Deep freezer
8.	Refrigerator
9.	Electronic Weighing balance
10.	Standard weighing sets
11.	pH meter
12.	BCG Mill
13.	Peristaltic pump
14.	Viable Air sampler
15.	Easy pet 3 (Electronic pipette controller)

16.	Garment cubicle (Dynamic)
17.	Garment Cubical(static)
18.	Computer with Printer
19.	Clean room Vacuum Cleaner
20.	Hanging Laminar Air Flow
21.	Dispensing booth
22.	Floor Mount Pass box (Dynamic)
23.	Dynamic pass box

List of the Equipment and Instruments available in the department as on March 2023 (Back side)

S.No.	Name of the Equipments and Instruments
1.	Autoclave (Material sterilization)
2.	Dry Heat Sterilizer
3.	Autoclave(Decontamination)
4.	Garment washing machine
5.	Garment Drier Machine
6.	Garment cubical (static)
7.	Vacuum cleaner
8.	Computer with printer
9.	Pass box(Dynamic)
10.	Pass box(Static)

CONTAINERIZATION SECTION

Downstream block is dedicated for the filling of final lots The GMP facility is about 36,928.51 square feet of functional area with modular panel walls and HVAC system to facilitate clean room environment for the production which encompass the compliance with schedule M and World Health Organization (WHO). The fdlowing functional areas are Vial washing area, Filling area, Capping area, Sterilization area, Vaccine Physical Verification area and Labeling area. The Visual inspection of the vials will be carried out with the help of Semi automated vial inspection machine. The inspected vials will be stored in cold storage area.

FLOW CHART

Decartoning

↓

Vial washing

↓

Filling

↓

Lyophilization

↓

Capping

↓

Vaccine Physical Verification (VPV)

↓

Labeling

DOWNSTREAM PROCESS

Online Vial Washing and Depyrogenation

- **Required quantity of 2R amber vials are decartoned at the day of vial washing.**
- **Decartoned vials are arranged in the vial washing machine conveyer for vial washing by using SS trays.**
- **Inner and outer surface of vials blow by compressed air.**
- **Inner and outer surface of vials washing by recycled WFI (Water for injection).**
- **Inner and outer surface of vials washing by fresh WFI.**

- Inner and outer surface of vials blow by compressed air.
- Washed vials are arranged in tunnel conveyer and enter in to the Depyrogenation tunnel.
- Vials are depyrogenated at 290°c by depyrogenated tunnel.

Online Filling

- The final bulk is received from culture section.
- Manifold assemble in online filling machine.
- Sterilized rubber wads have been loaded to hooper.
- Depyrogenatedvials are automatically filled and half Stoppered with sterile rubber wads under hanging HEPA filter automatically in the filling station.
- The Half Stoppered vials are collected in SS trays and it is fenced by SS frames and it's loaded in mobile LAF (Laminar air flow chamber) and transferred for loading into lyophilizer.
- After completion of filling the manifold and buffer vessel are disconnected and loaded in decontamination autoclave.

Online Capping

- Sterile aluminumflip off seals are loaded in hooper.
- Fully Stoppered lyophilized vials are unloaded from lyophilizer.
- Vials are transferred to capping area through mobile LAF and arranged in feeding turn table.
- Vial capping is carried out over the fully stoppered vials with sterile aluminumflip off seals in the vial capping machine under hanging HEPA filter. The capped vials are collected in plastic crates and stored in cold room at - 2 to -8° c.

Vaccine Physical Verification

- Examine the vials by visual inspection machine, defective vials are picked and dropped in the rejection bin, thereby passing good vials through the conveyor which are collected in crates.
- Cracked vials, broken vials, empty, sticky, liquid vials, defective capping, low and high volume vials, dust or foreign particles in the vials are rejected, decontaminated and segregated for disposal.

Labeling and VVM

- Vials are taken from cold room after receiving order from QA for labeling.
- Vials are arranged in SS trays and dried to remove moisture in outside of the vials.
- Respective batch details was uploaded in labeling machine and vials are labeled.

Doses of BCG Vaccine Produced during the Year 2022-2023

S.NO.	MONTH	LOT NO.	DOSES IN LAKHS
1.	September 2022	L-133 to L-142 (10 lots)	38.77
2.	October 2022	L-143 to L-151 (9 lots)	35.25
3.	January 2023	L152 (1 lot)	3.87
4.	February 2023	L-153 to L-160 (8 lots)	31.3

PACKING SECTION

The number of doses packed for supply during the Financial Year 2022-23 are as follows:

May 2022

Jhansi	**-**	**1.6 Lakh Doses**
Agra	**-**	**2.0 Lakh Doses**
GMSD Karnal	**-**	**20.0 LakhDoses**
Lucknow	**-**	**2.0 Lakh Doses**
Kanpur	**-**	**1.5 Lakh Doses**
Varanasi	**-**	**4.0 Lakh Doses**
GMSD Chennai	**-**	**5.0 Lakh Doses**

Vaccine Packed for Supply in May 2022 - 36.1 Lakh Doses

June 2022

GMSD Chennai - 10.0 Lakh Doses

Vaccine Packed for Supply in June 2022 - 10.0 Lakh Doses

August 2022

DPH - Chennai	-	1.0 Lakh Doses
Bangalore	-	1.5 Lakh Doses
Pune	-	6.5 Lakh Doses
Jhansi	-	2.0 Lakh Doses
Agra	-	2.5 Lakh Doses
Lucknow	-	2.5 Lakh Doses
Kanpur	-	2.0 Lakh Doses
Varanasi	-	4.5 Lakh Doses
Raipur	-	2.0 Lakh Doses
Hyderabad	-	1.0 Lakh Doses
Gannavaram	-	1.5 Lakh Doses

Vaccine Packed for Supply in August 2022 - 27.0 Lakh Doses

November 2022

GMSD Chennai	-	4.5 Lakh Doses
GMSD Mumbai	-	8.5 Lakh Doses
GMSD Karnal	-	11.0 Lakh Doses
GMSD Kolkata	-	14.0 Lakh Doses

Vaccine Packed for Supply in November 2022 - 38.0 Lakh Doses

February 2023

GMSD Chennai	-	6.0 Lakh Doses
GMSD Mumbai	-	11.0 Lakh Doses
GMSD Karnal	-	20.0 Lakh Doses

Total No. of Vaccine Supplied in February 2023 - 37.0 Lakh Doses

2. Training

Induction training given to newly appointed contract staff on packing and supply activities and SOP's of the section.

3. Specific Achievement

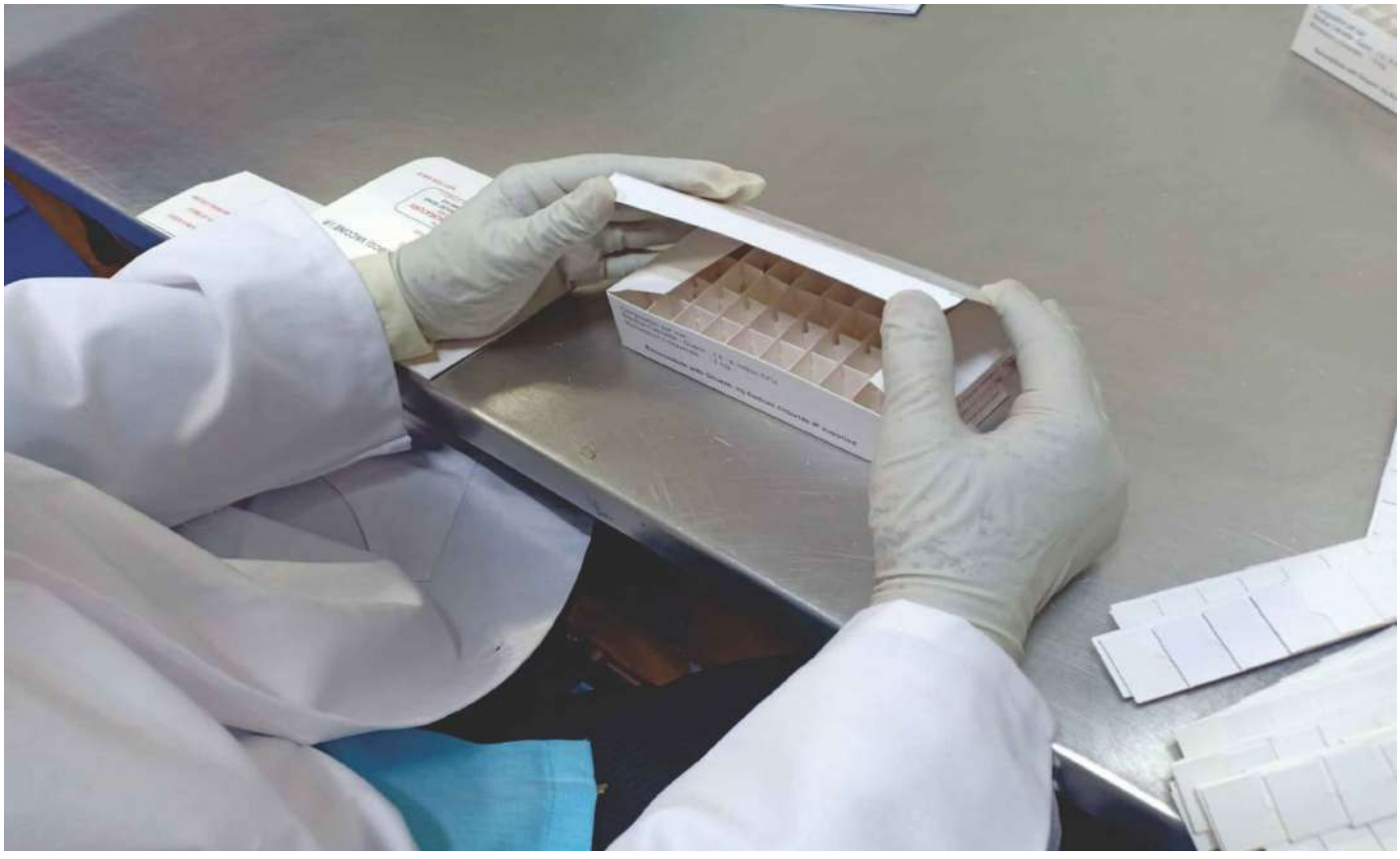
Expandable Polystyrene container was included in the major carton packing material itself as per EPW 2008 Packing Specifications.

Major corrugated boxes have been redesigned so as to accommodate 2000 vials per box instead of 600 vials per box.

Secondary Packing materials such as Inner partition and Minor carton boxes have also been redesigned.

The final Packing is done in such a way that the Consignee can store the vaccine in minor cartons easily in the cold storage without the major carton. During distribution the Vaccine can be transferred from cold storage into the respective major box which has thermocol box inside it.

This method of Packing is of great space saving idea. The utility of existing cold storage space of BCGVL also considerably improved and it also facilitates Vaccine storage at centres to store more quantity of Vaccine. Also, this enabled the more quantity of transportation by refrigerated truck.




BCG VACCINE LABORATORY
Ministry of Health and Family Welfare,
Government of India, Guindy, Chennai - 600 032.
Bacillus Calmette - Guerin Vaccine I.P. (Freeze Dried)
For Universal Immunization Programme

SUPPLY SECTION

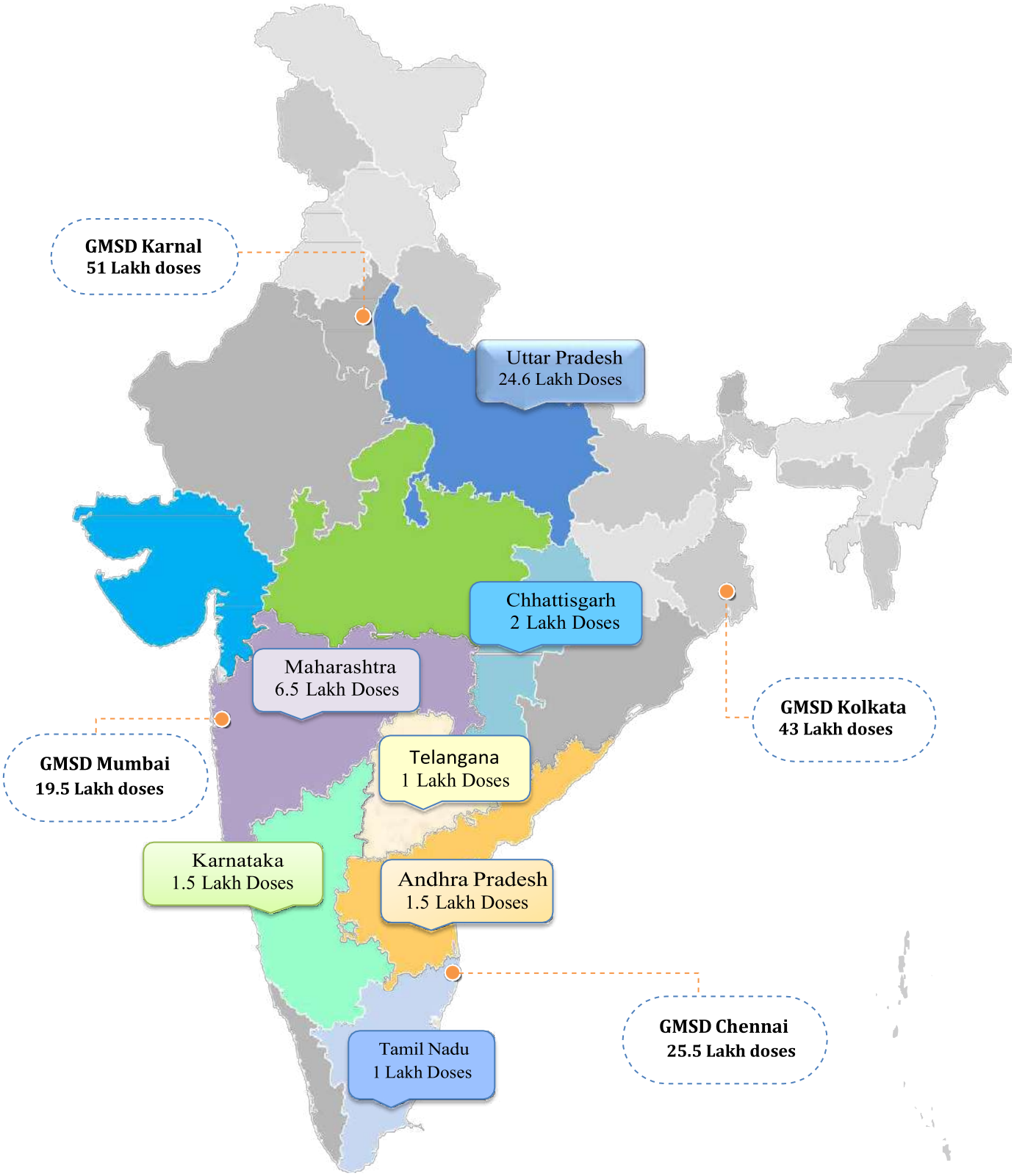
S.NO.	CONSIGNEE	TOTAL DOSES SUPPLIED
1.	GMSD, Chennai	25.5
2.	GMSD, Kolkata	43
3.	GMSD, Karnal	51
4.	GMSD, Mumbai	19.5
5.	DPH, Chennai	1.0
6.	Jhansi,UttarPradesh	3.6
7.	Agra, UttarPradesh	4.5
8.	Kanpur, UttarPradesh	3.5
9.	Lucknow, UttarPradesh	4.5
10.	Varanasi, UttarPradesh	8.5
11.	Pune, Maharastra	6.5
12.	Gannavaram,Andhra Pradesh	1.5
13.	Hyderabad, Telangana	1.0
14.	Banglore, Karnataka	1.5
15.	Raipur, Chhattisgarh	2.0
Total Vaccine doses supplied in FY 2022-23		177.1 lakh doses (104 lakh doses for FY 2022-23 and 73.1 lakh doses for FY 2021-22)

Revenue generated by supply of vaccine to various consignees

- Doses Supplied:17,71,000 vials X 10 doses = 177.1 lakh doses
  Revenue Generated in FY 2022-23

- 177,10,000 (Doses supplied) X Rs.6.51 (price per dose) = Rs.11,52,92,100/

GMSD and State-wise supply of BCG Vaccine in FY 2022-23



WAREHOUSE SECTION

Functions of the Warehouse Section

The warehouse section procures raw materials, chemicals, equipment, spares, stationery, consumables, clean room materials and furniture. Floating of tenders for procurement through CPP Portal & Limited Tender, preparation of ranking, conducting technical committee /purchase committee meetings are being performed by the warehouse section. Condemnation of obsolete items. It performsinventory management through online and processes bills for payment on time.

Activities performed

Purchase, Storage and issue of Chemicals, Raw Materials, Packing Materials, Sticker Labels, Animal Feed, Bedding Material for Lab Animals, Maintenance spares, Consumables and Stationeries with proper documentation.

1. **Orders placed through GeM for Annual Requirement of Computer Cartridges and Stationery/Consumables, Maintenance Spares such as Cable, LED Street Lights, LED Tube Lights, Battery, Computers, Microscopes, Weighing Balance, Air Sampler, Drying Machine, RO Water System, etc.**

2. **PROCUREMENT THROUGH L/C Process :**
   - **VVM Stickers from M/s. Temptime Corporation, USA-22 Lakhs**

3. **Number of Maintenance Contracts awarded :**

Sl. No.	Nature of Contract	No. Awarded
1.	Annual Maintenance Contract	17
2.	Comprehensive Maintenance Contract	07
3	Operation & Maintenance Contract	04
4.	Maintenance Contracts through GeM Portal (a) Air Conditioners (b) Computers (c) Rodent Control	04

4. **Total No. of orders placed through GeM portal:**

	2021-22	2022-23
No. of Orders placed	88	146
Goods	31,00,000/	Rs. 55,01,689/
Services	19,30,000/	Rs. 52,89,630/

5. **No. of Bills processed - 566**

QUALITY ASSURANCE SECTION

Quality assurance drafts quality assurance policies and procedures. It plans, conducts and monitors the testing and inspection of materials and products to ensure required product quality.

Functions of the section

- **It is responsible for the management of documents, SOPs and other protocols.**
- **It takes action to investigate complaints and monitors corrective and preventive actions.**
- **It supervises validation and calibration of all equipment and instruments.**
- **It documents internal audits and monitors risk management activities.**
- **It analyses data and identify areas for improvements in the quality system.**
- **It monitors temperature maintenance of deep freezers, cold storages and**
- **incubators through data logger system.**

Activities Performed

1. **Calibration of Instruments and HEPA Filter validation of Classified Clean room Facility was undertaken through external agencies.**
2. **Periodical Validation of sterilizing Equipments (Autoclaves, Dry Heat Sterilizers and Online Tunnel for vial Depyrogenation was validated with Biological Indicators and BET challenge.**
3. **BCG vaccine with its diluent for 28 Batches are sent to CDL for testing and Release.**
4. **BCGVL produced and Supplied 104 Lakh Doses for the UIP.**
5. **Critical Raw materials and Rubber stoppers are outsourced for testing its suitability.**
6. **BCG Vaccine Sample draw and Cold storage Inspection for supply upon release by the Joint Director, DPH & Immunization was coordinated and undertaken on five occasions.**
7. **Inspection notes of eight No's to the allotted consignees are processed and issued to respective consignees.**
8. **Verified the suitability of certain materials purchased and the same certified.**
9. **Involved in the procurement of items on Market survey, technical committee and generated the comparison statement and the report submitted for the procurement process.**
10. **Interaction with the internal Departments in the process of production activities and utilities management.**

QUALITY CONTROL SECTION

Sl. No	Activities	No of tests/batches
1.	Testing of BCG vaccine for Batch release The following tests has been completed for 32 batches a) Identity test b) Sterility test c) Optical Density d) Viability for Bulk e) Viability for Lot & Thermal Stability f) Absence of virulent Mycobacteria g) Excessive Dermal Reactivity h) Water content i) Retention sample with Diluent	 254 Tests 182 Tests 32 Batches 32 Batches 67 Test 32 Batches 10 Batches 32 Batches 23 Batches
2.	Operation of Autoclave for decontamination Operation of Autoclave for Sterilization (Media & Materials) Operation of Double door Hot air oven for Sterilization	139 cycles 332 cycles 155 cycles
3.	Environmental & Personnel Monitoring programme a) Performed during every activity A,B,C b) Performed at rest A,B,C,D c) D Area	 386 Tests Before start of process Monthly once
4.	Raw material testing a) Water testing Routine Physiochemical & Microbiology tests TOC & ENDOTOXIN tests b) Primary packaging material (For every lot) 1) 2R Vials 2) Rubber wads 3) Al. Flip offs c) Diluents (For every lot)	 Daily Fortnightly 10 Batches 09 Batches 04 Batches 04 Batches
5.	Suitability of culture media Growth Promotion Test for SCDA,SDA, FTM & SCDM	 82 Times
6.	Process Validation PCR– Test for BCG strain (DANISH 1331) using the RD gene system was performed during this period	07 Times
7.	Stability Studies Routine Stability studies conducted for 3 consecutive batches L133, L134, L135 for Identification , Sterility,Viability & Watercontent parameters	Every 3 months

Media Preparation

- SOYA, FTM, L.J.MEDIA , SAUTON, D'SAUTON , N'SALINE 9%, 10 % TWEEN 80
- Microbiological Media, Selective Media and Biochemical Media
- Processing of validation samples- Autoclave & DHS
- Washing of Glasswares and Garments.
- Operation, Calibration and maintenance of instruments
- Safe disposal of waste and expired/ absolutely materials.

Training conducted from 31.3.2022 to 31.03.2023

- Regular sessions of Oral & Hands- on training sessions given to all and for newly appointed staff
- Documentation and reporting.

Future plan

1. To initiate testing of Rubber wads as per regulatory guidelines. Some of the tests to be outsourced
   a) Identification b) Biological test to be outsourced
2. A proposal and plan for establishment of new Microbiology lab and washing facility is under consideration.
3. To evaluate residual moisture content in the product after lyopholisation process inindividual vials, the test procedure to be upgraded from titrometric method to coulometric method.

A. List of equipment procured during the period of 31.3.2022 to 31.03.2023

Sl.No.	Equipment	Nos
1	Microscope	1
2	Pipette controller	1
3.	Pen Type pH Meter	1
4.	KF Coulometer	1

B. Specific achievement, if any for the period from 31.3.2022 to 31.03.2023

a. Investigation was carried out for the environmental monitoring programme during every activity. The microorganisms were isolated, identified by culture characteristics and biochemical testing.

b. Polymerase Chain reaction (PCR) for BCG using the RD gene system was previously established, further using a single step crude DNA isolation protocol in place of one day protocol for DNA isolation, additionally a colony PCR method was performed which will further improvise the PCR technique.

C. Additional information, if any

a. Pre-treatment and PW water were tested (Microbiological tests-Specific pathogen identified with the available facility and sent to National Institute of Epidemiology for further identification at species level using VITEK test.

LABORATORY ANIMAL HOUSE

The laboratory animal house (LAH) facility at BCGVLis a standalone building located inside the premises and markedly distant from the production and other ancillary facilities.The institute is registered with CSEA wide reg no 358/GO/ReRcBi/S/2001/CPCSEA from 19.01.2001 and subsequently renewed its registration, current renewal is valid till 23.08.2026. The animal house is maintained in accordance with the CCSEA guidelines which are subjected to annual inspection by the respective authorities.

Routine Performance during the Year 2022-23

The laboratory animal house (LAH) facility comprises of Breeding animal houseat first floorand Experimental animal houseat ground floor. The activities at the breeding animal house include breeding and weaning of guinea pigs which is planned to meet the supply of animals for the testing requirement of the production. The activity at experimental animal house involves testing the vaccine for potency and safety in accordance with IP guidelines 2018.
The LAH currently houses about 300 breeders of Dunkin Hartley breed of guinea pigs, in deep litter system. The Experimental animal house has capacity to house 108 batches of testing animals at once.

Staff On Roll as on 31.03.2023

Sl. No	Name	Designation
1	Dr. Anand S	Veterinarian
2	Mrs. B. Anandhi	AnimalSupervisor
3	Mr. T. Venkatesa Lal Bahadur	Laboratory Assistant
4	Mr. M. Madhavan	
5	Mr. B. Kumar	
6	Mr. A.S. Kumar	
7	Mr. K. Babu	
8	Mr. Kumar Natwar Singh	
9	Mr. B. Jayakumar	MTS
01	Mr. Shankar T	TA Grade III (Contract)
11	Mr. Akash S	TA Grade III (Contract)

Animal Stock and Usage

Guinea pigs	2021-22	2022-23
Animal Stock (as on 31st March)	716	490
Births	995	307
Receipts	0	0
Used for Testing	426	252
No of batches tested	73	42

Conferences/Seminars/Trainings/Visit attended

1. 10th International Conference of Laboratory Animal Scientists' Association (LASA), India, on "Animal Models for One Health Programme Challenges and Future Perspectives" jointly organized by the National Institute of Animal Biotechnology (NIAB), National Animal Resource Facility for Biomedical Research (NARFBR) and LASA India in Hyderabad during 3rd & 4th June 2022 at NAARM, Hyderabad attended by Dr. Anand S, Veterinarian.

2. Seminar on "Nutritional models and Ethics for Laboratory Animals used in Biomedical Research" organized by the Department of Animal Nutrition, Veterinary College and Research Institute, Tamil Nadu Veterinary and Animal Sciences University, Namakkal in association with Laboratory Animal Scientists Association of India (LASA India) on 12.08.2022 attended by Dr. Anand S, Veterinarian.

3. "Defining Ethics and Welfare in Preclinical Research & Workshop on Preparing B- Forms and the Conduct of IAEC"- DEW 2022 Division of Laboratory Animal Science, Biomedical Technology Wing, Sree Chitra Tirunal Institute for Medical Sciences & Technology, Poojappura, Thiruvananthapuram 695012, Kerala, at Achutha Menon Center Auditoriumheld on the 14th and 15th of November attended by Dr. Anand S, Veterinarian.

Meetings/ Inspection conducted

Name	Duration	Participants
3rd IAEC meeting	26.11.2022	IAEC members
Annual inspection	31.12.2022	CCSEA Main nominee
2nd IAEC meeting (Online)	25.03.2023	IAEC members

Equipment's / Materials acquired

1. Electronic animal weighing balance (2 nos) with animal mode procured through GeM.
2. Refrigerator procured through GeM.
3. Personal Computer and table procured through GeM

Members of IAEC as on 31.03.2023

Name of the IAEC member	Designation in IAEC	Member profile
Dr. B. Sekar, Consultant (Micro), BCG Vaccine Laboratory, Guindy Chennai-32	Biological scientist (Chairperson)	Internal member & Institute recommended and accepted by CCSEA
Dr. T.F. Hassan, Chief Medical Officer(SAG), BCG Vaccine Laboratory, Guindy Chennai-32	Scientist from different biological discipline	Internal member & Institute recommended and accepted by CCSEA
Dr Anand S Veterinarian, BCG Vaccine Laboratory, Guindy Chennai-32	Veterinarian (Member Secretary)	Internal member & Institute recommended and accepted by CCSEA
Dr .R. Balaje, Technical Supervisor, BCG Vaccine Laboratory, Guindy Chennai-32	Scientist from different biological discipline	Internal member & Institute recommended and accepted by CCSEA
Smt .D. Hema, Technical Supervisor, BCG Vaccine Laboratory, Guindy Chennai-32	Scientist In-charge of Animal house facility	Internal member & Institute recommended and accepted by CCSEA
Dr R. Ananda Raja, Senior Scientist, ICAR – Central Institute of Brackishwater Aquaculture, 75, Santhome High Road, R. A. puram, Chennai 600028	Main Nominee	External member & Nominated by CCSEA
Dr A. Gopinathan, Assistant Professor & Head, Dept of Animal Genetics and Breeding, Veterinary College Research Institute, Udumalpet	Link Nominee	External member & Nominated by CCSEA
Dr A. Muthuvel, Assistant Professor National Institute of Siddha, Dept of AYUSH, Tambaram Sanitorium, Chennai-47	Scientist fromoutside the Institute	External member & Nominated by CCSEA
Dr R. Aruna Devi, Research officer, Captain srinivasa Murti Drug Research Institute for Ayurveda, Dept of AYUSH, Chennai,Tamil Nadu	Socially Aware Nominee	External member & Nominated by CCSEA

CCSEA Annual Inspection of LAH on 31.12.2022 by Main Nominee

ENGINEERING AND MAINTENANCE SECTION

- **Engineering Section office is situated in the ground floor of the main building of BCGVL. The workshop for Engineering Section situated opposite to the Animal House.**

- **All the record works, planning of preventive maintenance activities and maintenance work are carried out in the Engineering Section office. Minor repair works are being carried out in the workshop area.**

- **The operation / preventive maintenance / breakdown maintenance of the following equipments are carried out by the Engineering section.**

Sl.No.	NAME OF THE EQUIPMENTS	
		Pre-Treatment System
		RO system
		Purified Water Generation System
		Purified Water Storage & Distribution
		Pure Steam Generation Plant
		WFI Generation Plant
		WFI Storage & Distribution
2.	Air Compressor	
3.	Boiler Plant (Indian Boiler Regulations [IBR])	
4.	Fire Fighting Room	
5.	Electrical HT / LTinstallations	
		Chiller Plants
		Brine Chiller Plant
		Air Handling Units (AHU)
		Treated Fresh Air units(TFA)
		Ventilation Unit System (VUS)
		Cold Rooms
		Filter Cleaning Machine
		Effluent Treatment Plant (ETP)
		Sewage Treatment Plant (STP)
8.	Online Vial Washing & Depyrogenation	
9.	Online Vial Filling & Half Stoppering machine	
10.	Lyophilizer	
11.	Vial capping machine	

- **Apart from the above, preventive maintenance / breakdown maintenance of all the equipment machineries are carried out by the Engineering Department. The names of the equipment are as follows:**

SL. NO.	NAME OF THE EQUIPMENT
1.	Static Pass box / Dynamic Pass box
2.	Garment cubicle
3.	Bio-Safety Cabinet
4.	Auto clave
5.	Dry Heat Sterilizer (DHS)
6.	Dispensing booth
7.	Incubator
8.	Media Preparation
9.	Media Dispenser
10.	Refrigerator
11.	Deep Freezer
12.	Garment washing machine
13.	Clean room vacuum cleaner
14.	Mobile Gen Set
15.	Diesel Generator Set
16.	Peristaltic pump
17.	Data Logger
18.	On Line Particle Counter
19.	Garment Cubicle
20.	Laminar air flow
21.	Ceiling Laminar flow
22.	Mobile Laminar flow
23.	Vial inspection & Coding Machine
24.	Vial Labeling Machine
25.	VVM Applicator
26.	Bio waste Inactivation plant

➢ **Apart from the preventive maintenance activities, the Engineering section officials are engaged 24 x 7 basis for the monitor / rectification work of critical equipment like Cold Rooms, Incubator, Boiler, HVAC systems, which are in operation continuously throughout the year.**

➢ **The duties of the Engineering Officials are planned in such a way that, to address the issues in the critical equipment during out of office hours / holidays also etc. This will ensure the uninterrupted operation of the critical utilities.**

Regular Works

1. **Regular production activities done.**
2. **Regular maintenance of equipment done.**
3. **Successfully renewed TNPCB license.**
4. **Successfully renewed fire license.**
5. **Successfully renewed IBR Boiler, fire order**
6. **Successfully renewed electrical safety license (central electrical authority)**

Special Work

1. **Double pole system (11KV) converted to ring main gear (RMG). Successfully installed RMG in BCGVL electrical substation.**
2. **New building Cladding cleaning work done.**
3. **BCGVL logo fabricated and fixed.**
4. **Approach road of BCGVL was cleaned and saplings laid work done.**
5. **Motor vehicle /cycle shed renovated.**
6. **Parking area made for BCGVL visitors at the entrance of the campus.**

Future Plans

1. **To install underground Diesel tank.**
2. **To procure and install stand by Boiler.**
3. **To procure and install stand by Air compressor**

List of Equipment

In Seed Revival, Sub-Culture, Harvesting and Media Preparation

Sl.No.	Name of the Equipment	Sl.No.	Name of the Equipment
1.	Incubator	12.	Media dispenser
2.	Dynamic passbox	13.	pH meter
3.	Bio safety cabinet	14.	Garment cubicle (Dynamic)
4.	Electronic Weighing balance	15.	Deep freezer
5.	Dispensing booth	16.	Peristalticpump
6.	BCG Mill	17.	Floor Mount Passbox (Dynamic)
7.	Auto clave	18.	Garment Cubical (static)
8.	Hanging LAF	19.	Viable Air sampler
9.	Refrigerator	20.	Computer with Printer
10.	Media preparation vessel	21.	Vacuum Cleaner
11.	CIP-trolley		

In Preparation and arrangement

S.No.	Name of the Equipment	S.No.	Name of the Equipment
1.	Autoclave (Material sterilization)	6.	Garment cubical (static)
2.	Dry Heat Sterilizer	7.	Vacuum cleaner
3.	Autoclave (Decontamination)	8.	Computer with printer
4.	Garment washing machine	9.	Pass box (Dynamic)
5.	Garment Drier Machine	10.	Pass box (Static)

Containerization

S.No	Equipment Name	Equipment Code
1	Online filling machine & half stoppering	CN31FM01
2	Online vial capping machine	CN31VC01
3	Mobile LAF	CN31MF01,CN31MF02, CN31MF03&CN33MF04
4	Dynamic garment cubical	CN28GC02=>ICTL/HLL/DGC/003/1314
5	Dynamic garment cubical	CN27GC01=>ICTL/HLL/DGC/004/1314
6	Decontamination Autoclave	CN24AU01
7	Garment Washing	CN25GW01
8	Dynamic passbox	CN24DP01

9	Staticpassbox	ICTL/HLL/SPB/104/1314
10	Dryheatsterilizer	CN23DH01
11	Bungprocessorcumsterilizer	CN23BS01
12	Floormountdynamicpassbox	CN22FP02=>ICTL/HLL/DPB/105/1314
13	Onlinevialwashing& depyrogenation	CN17WD01
14	Floormountpassbox	CN01FP01
15	Dynamicgarmentcubical	ICTL/HHL/SGC/005/1314
16	Dynamicgarmentcubical	ICTL/HHL/SGC/006/1314
17	Dynamicgarmentcubical	ICTL/HLL/SGC/020/1314

WAREHOUSE

S.No.	Name of the Equipment
1	Electronic Weighing Balance
2	Dispensing Booth
3	Sampling Booth

QUALITY ASSURANCE

S.No.	Name of the Equipment	
1	Deep freezer	Viable Air Sampler
2	Particle counter (Lasair III)	Data Logger
3	Particle counter (Metone)	Electronic Weighing Balance

QUALITY CONTROL

S.No.	Name of the Equipment	
1	Autoclave	Centrifuge
2	Dry Heat Sterilization	Light Microscope
3	pH Meter	Biolumino meter
4	Conductivity meter	HPLC
5	Electronic Weighing Balance	Sonicator
6	Refrigerator	TOC Analyser
7	Laminar Air Flow	Karl Fischer
8	Incubator	Spectrophoto meter
9	Fluorescent Microscope	Vortex Mixer
10	Deep Freezer	Stability Chamber

MAINTENANCE / UTILITY

S. No.	Name of the Equipment	
1	Boiler	Chiller Plant II
2	Diesel Generator Set	Filter Cleaning Machine
3	Air Compressor	Building Management System
4	Fire pump	Sewage Treatment plant
5	Filter Cleaning Machine	Effluent Treatment Plant
6	Building management System	Brine Chiller Plant I

WATER SYSTEM

S.No.	Name of the Equipment	
1	Pre-treatment system	Pure Steam Generation Plant
2	RO Water System	WFI Generation Plant
3	Purified water Generation System	WFI Storage & Distribution
4	Purified Water Storage & Distribution	

Conversion from Double Pole System to Ring Main Gear (RMG)

BEFORE (DOUBLE POLE STRUCTURE)	AFTER (Ring Main Gear (RMG)
	

Construction of Compound wall (part of the area at BCGVL premises)

COLD ROOM

GARDEN

BEFORE	AFTER
	

Metro Water Meter

BEFORE	AFTER
	  

Steam line laid at Main Building (Quality Control Department and Animal House)

Speed Bread Pad Arrangements

BEFORE	AFTER
	

BCG Staff Quarters (vacant land)

BEFORE	AFTER
 	

List of Staff Superannuated/Voluntarily retired from 01.04.2022 to 31.03.2023

Sl.No	Name	Designation	Date
1	M.Pushparani	Scientific Assistant	30.04.2022
2	Md. Ayoob	Scientific Assistant	31.05.2022
3	S.Malathi	Scientific Assistant	31.05.2022
4	V.Balakrishnan	Scientific Assistant	30.11.2022
5	A.Krishnakumar	Administrative Officer	30.11.2022
6	Dr.B.Sekar	Consultant (Micro)	31.03.2023

BCGVL Residential Quarters

BCGVL residential quarters is located on the other campus in the Sardar patel road. The campus has facilities such as playground, open stage and designated play area for Children. The campus also houses CGHS dispensary for Guindy area with Allopathy and Ayurvedha units.

Total Quarters – 131

Sl No	Type	No of Quarters	Occupied
1	I	55	41
2	II	44	37
3	III	22	13
4	IV	8	3
5	V	2	1
	Total	131	95

Events and Gallery

1. Visit of DGHS to BCGVL on 01.05.2022

2. Gandhi Jayanthi on 02.10.2022

3. Pongal Celebration on 13.01.2023

4. Visit by Central team of Experts to BCGVL on 31.03.2023

BCGVL TEAM as on 31.03.2023

MAIN BUILDING ENTRANCE IN 2006

BCG Vaccine Laboratory

Directorate General of Health Services
Ministry of Health and Family Welfare
Government of India
No.110, 33 Feet Road, Mount Road
Guindy, Chennai - 600 032

Email: bcgvl.tnchn@nic.in / Website: www.dirbcglab.gov.in
044- 2250 0476