Right to information Act, 2005

4 THE GAZETTER OF INDIA EXTRAORDINARY [PART II-4]

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CHAPTER II

Right to information and obligation of public authorities

3. Subject to the provisions of this Act, all citizens shall have the right to information.

4. (1) Every public authority shall-

a) maintain all its records duly catalogued and indexed in a manner and the form which facilitates the right to information under this Act and ensure that all records that are appropriate to be computerized are, within a reasonable time and subject to availability of resources, computerized and connected through a network all over the country on different systems so that access to such records is facilitated;
b) publish within one hundred and twenty days from the enactment of this Act

(i) The particulars of its organization, functions and duties;

Organization:

SERI-BIOTECH RESEARCH LABORATORY

CENTRAL SILK BOARD, MINISTRY OF TEXTILES

GOVERNMENT OF INDIA,

KODATHI, CARMELRAM P.O.
BENGALURU – 560 035, KARNATAKA

Mandate:

The Seri-Biotech Research Laboratory [SBRL] was established during 1993 under the World Bank aided National Sericulture Project as per the advice of a high level committee headed by Prof. Lynn Riddiford, University of Washington, USA to carry out research in the frontier areas of biology for the development of the sericulture industry. The following are the broad mandates of the laboratory:

- To conduct research in frontier areas of modern biology and to seek potential applications of these work towards improving silk productivity.
- To interact with other institutions doing basic or applied research in areas related to sericulture and other allied areas.
- To disseminate technology developed to the target groups through the other R & D constituents of CSB.

Functions:

Presently the laboratory is implementing externally funded and in-house research projects as indicated below:

Host-Plant Biotechnology

Identification, characterization and utilization of genes/markers involved in disease resistance and abiotic stress tolerance, work was carried out related to molecular characterization and identification of various mulberry species and other host plants, development of microsatellites for mulberry, characterization of drought resistant genes, study on microspore embryogenesis etc.

Silkworm Biotechnology

The focus is on identification of silkworm genes and their functions associated with resistance to viral and fungal pathogens, development of NPV tolerant silkworm lines based on marker assisted selection and RNAi technique, regulation of yolk proteins, characterization of RNA dependent RNA polymerase gene, characterization of oviposition

stimulating factors in silkworms and Identification of molecular markers associated with filament characters and its use in improvement of multivoltine breeds, whole genome sequencing and transcriptome analysis of golden silk moth etc.

The laboratory is also focusing on identification and molecular characterization of various pathogens like virus, bacteria, microsporidia etc. infecting silkworms and development of diagnostic tools for their easy and early detection. Development of Densovirus resistant productive breeds through marker assisted selection and Transkingdom RNA interference (*tk*RNAi) approach for resistance against BmNPV infection in silkworm. Research is also carried out on Identification of immune response proteins and their interactions, under stress from pests like uzi fly, under microsporidia infection etc. for improvement of silkworm breed.

Silk Biomaterials

Programmes on Characterization of Sericin for Cosmetic Applications in collaboration with CSTRI, Bangalore, M/s Hindustan Lever and work on development of fibroin fusion silk with antimicrobial, antioxidant and UV protective properties is on-going.

1. Significant achievements

SBRL has been implemented 54 research projects supported by CSB, DBT, DST and international funding. The brief achievements since inception are as indicated below:

1.1. Research highlights

- Recombinant silk Fibroin- Cecropin B, a fusion protein was expressed in a heterologous expression system. This fusion protein was effective against gram-positive and gram negative bacteria. It has shown enhanced wound healing activity in rats and human dermal cells. The fusion protein has also shown strong anti- oxidant activity.
- Transgenic CSR2 races over-expressing immune gene Relish 1 and antifungal Drosomycin B are developed. These transgenic silkworms showed enhanced resistance/tolerance against pathogenic bacteria and microsporidian infection. Utilization of the transgenic silkworms enhance silk production by reducing the crop loss due to pathogens.
- Bacteria-based dsRNA is developed for RNA interference (RNAi) of transcripts of NPV genes ie-1 and lef-1 involved in viral DNA multiplication. Feeding bacterially expressed dsRNA led to restriction of the viral multiplication in the silkworm. The results obtained indicates successful use of non-pathogenic bacteria as a vector for delivering dsRNA to elicit RNAi against BmNPV infection in silkworm and suggest as an alternative tool for insect pest management.
- Screening for molecular markers associated with silk filament traits in *B. mori* larva showed influence of genes encoding ion transport (ITP), VATPase, CPR genes and SG metabolism pathway genes on efficient processing and transportation of silk proteins from posterior to anterior silk gland. Further a deletion region is linked to filament length, cocoon weight and shell weight. The deletion can be utilized as marker for screening germplasm to identify multivoltine hybrids with better post cocoon traits and its improvement.
- The genome of viral pathogen (Accession: GI: 1371952746) infecting oak tasar silkworm *Antheraea proylei* has six conserved sequences

and it displayed homology with alpha-baculovirus (AnprNPV) infecting saturniid silkworms. Presence of the virus on the surfaces of *A. proylei* eggs was confirmed through PCR showing vertical transmission from the infected eggs as the source of infection.

- The RNA virus known as Iflavirus causing flacherie in tropical tasar *Antheraea mylitta* was characterized through whole genome sequencing. The multiplication of virus was detected in the various tissues such as fat body, midgut, Malpighian tubule & Ovary. Transmission of the virus from mother moth to the offspring is confirmed.
- Under the DBT sponsored project a new hybrid (MASN) was developed using marker assisted selection against NPV infection. The rearing performances of newly developed bivoltines and cross breeds were compared with the ruling varities at different sericultural areas under CSRTI of Mysore, Berhampore and Pampore. The MASN4 X CSR4 hybrids yielded 53.5 -63 Kg /100DFLs against the yield of 51% in the ruling variety at observed farmers under CSRTI Berhampore. Similarly, the cross breeds Nistari x MASN4 yielded 52kgs/100DFLs whereas the ruling variety yielded 48.5kg/100DFLs. The performance of newly developed hybrids was significantly higher than the ruling variety.
- Mildew resistance locus O (MLO) proteins from mulberry were analyzed for motifs and domains in comparison with functionally characterized MLOs from other dicot species and phylogeny was established for identification of clade-V MLO genes from mulberry. This analysis led to identification of candidate MLO genes involved in powdery mildew resistance in mulberry.
- Whole genome of the wild and reared Indian muga silkworm, *Antheraea assamensis* is sequenced and transcriptome analysis to identify differentially expressed genes in response to pathogen and silk gland specific genes are in progress.
- Three lines of transgenic silkworms with construct for

overexpression of immune genes relish1, drosomycin and cecropinB were synthesized from pure Mysore and CSR2 for enhanced immunity.

- Causal organism of tiger band diseases in oak tasar silkworm, *Antheraea proyeli* identified as an *Antheraea proyeli* nucleopolyhedrovirus (AnprNPV).
- Developed NPV tolerant MASN4, MASN6 and MASN7 breeds through marker assisted backcrossing using Sarupat as donor and CSR2 as a recurrent parent.
- Developed DNV-2 resistant improved CSR6, CSR26, MASN6, MASN7 and J2P breeds.
- Effect of dsRNA against NPV multiplication shown that 30-40% increased survivability of NPV infected larvae in comparison to without dsRNA treatment.
- Utilizing RNAi technique NPV resistance gene from NPV resistant transgenic Nistari multivoltine lines has been introgressed to NPV susceptible CSR4 and CSR27 bivoltine lines which revealed 30% enhanced resistance to NPV.
- The immune response genes *viz.* Gloverin, SERPIN, *Hsp* 23.7 and *Hsp* 40 revealed significant up-regulation in NPV resistant genotype [Sarupat] suggesting that these genes could play an important role in baculovirus resistance in *B. mori*.
- DNV-2 infection in *B.mori* destructively damaged the midgut tissue suggesting the necessity to carry out systematic survey for DNV-2 in flacherie prone areas to devise appropriate control measures.
- *B.mori* germplasm possessing the *nsd-2* gene for resistance to DNV-2 was identified that can be utilized to strengthen silkworm breeding programmes.
- SSU-rRNA gene sequence was found to be highly useful to decipher the correct taxonomic status of the 14 different microsporidians identified from the silkworms and different insect pests harboring various mulberry fields, the latter possibly being the main source

for cross infecting silkworms.

- Six different microsporidians identified from tasar silkworms had clear homology with *Nosema* species.
- RNAi silencing of yolk protein receptors disrupted ovary growth, yolk deposition and developments indicating their role in egg development. VgR gene expression levels were high in Pure Mysore, Sarupat, CSR2, CSR26 and NB4D2.
- The Indian isolate of DNV-2 was identified and found to be severely widespread under field conditions causing flacherie disease.
- Twenty four host-response and immune proteins from uzi infected *B. mori* and 3 from *S. ricini* were identified, while, 3 proteins were observed to interact with Hsp70 a major stress protein induced after uzi fly infection in the integument and hemocytes most of which were activated in the early stages of infection and based on this outcome, immunocompetent *B. mori* strains can be identified for breeding programs.
- The Eri silkworm larvae exhibited innate defence mechanism by forming cysts around the infected uzi maggot killing it by inhibiting growth.
- Identified and characterized several Simple Sequence Repeats (SSR) and Inter-simple sequence repeats (ISSR) for the first time from tropical strains of the silkworm *B.mori*.
- Identified markers viz. RAPD, RFLP, SSR and ISSR were utilized for characterizing 60 multivoltine and 90 bivoltine *B.mori* using specific primers.
- One hundred and fifty mulberry germplasm were characterized using various DNA marker systems to determine their taxonomic status and association of the markers with important characters.
- Twenty eight SSR markers were developed for characterization of diapausing and non diapausing silkworms for higher & lower cocoon characters.
- Silkworm DNA markers for yield attributes and larval duration (one)

with potential use in Marker Assisted Breeding program were identified.

- Studies were attempted for the first time to understand the genetic relationship of the ecoraces of muga and tasar silkworms using well defined marker systems like SSRs.
- Fifteen Eri silkworm populations studied showed genetic homogeneity and less variability with positive correlation of genetic distance between populations with geographic distance and negative with altitude.
- Localized differentiation of Eri silkworm subpopulations noticed and recommended Eri population increase by widening area of localized populations.
- Wild tasar ecorace, Jatta Daba was identified as a primitive strain from which other strains have originated by adapting to different environment in Jharkhand and the muga Selsela population from the West Garo Hills as heterogenous population, both of which need to be protected from natural disasters.
- ISSR marker studies revealed taxonomic complexities of mulberry germplasm identifying highly divergent cultivars based on genetic distance for use as ideal material for breeding program
- First mulberry genetic linkage map was constructed with S36 x V1 mapping populations based on which dense genetic linkage map can be developed and association as well as linkage mapping studies can be taken up.
- Fifty five ISSR and 179 RAPD putative/species specific markers were identified for existence of microsporidians in addition to *Nosema bombycis*.
- Twenty five RAPD putative/species specific markers were identified to detect various microsporidians.
- A PCR based multiplex detection system has been developed for the simultaneous detection of microspridia, nucleopolyhedrosis virus, and densovirus. The technology has been filed for patenting with

NRDC, New Delhi. No. 1746/CHE/2008 and published in Patent Journal by NRDC: 29/01/2012. The technique is being used in NSSO Basic Seed Farm Mysore to diagnose pebrine disease in the silkworm seed.

- Silkworm brain-specific lipophorin receptor (a key molecule functioning in reproduction and development) variant gene (LpR4) identified to have a role in signal transduction apart from uptake of lipids which is a new finding in insect lipoprotein research aiding in future related studies.
- Diapause specific genes have been identified in diapause induced multivoltine silkworms through semi-quantitative polymerase chain reaction (PCR), Suppressive Subtractive Hybridization and Microarrary analysis. The multivoltine silkworm germplasm can be screened based on expression of these genes and subjected to diapause induction for cost effective conservation.
- DNA markers viz. Nag 34, Nag 65, Nag 84 and Nag 88 were identified to be associated with NPV resistance and were mapped on chromosome numbers 12, 5, 7 and 3. Introgression of these markers in NPV susceptible CSR2 lines through Marker Assisted Selection to develop NPV tolerant bivoltine lines and their field trials are in progress so that, they can be utilized as parents for making commercial F1 hybrids.
- Hsp70 was identified as a major stress protein induced after uzi fly infection in the integument and hemocytes of *B. mori* larvae.

1.2. Publications

SBRL has published more than 100 research papers in peer reviewed international and national journals (Attached as Annexure 1), copies of which can be obtained on request.

2. LIST OF R & D PROJECTS (1994 – July 2022)

SN	Project Code	Project title	Project duration
1	ARP-08007MI CSB	Biological and molecular characterization of virosis in Muga silkworm, (*Antheraea assamensis* Helfer)	March 2022- February 2025
2	AIB-08008MI CSB	Development and Evaluation of Eri silkworm (*Samia ricini* Donovan) breeds/ hybrids with improved productivity	March 2022- February 2025
3	AIC08009CN CSB	Profiling of lipid, protein and carbohydrate of mulberry mealybug *Maconellicoccus hirsutus* (Green)	April 2022- March 2025
4	AIT08010M CSB	Transcriptome studies for susceptibility of Muga Silkworm (Antheraea assamensis) to diseases.	April 2022- March 2026
5	AIT 08006 EF (Indo-Swedish project)	Development of lateral flow assay (LFA) kit for diagnosis of pebrine disease in silkworms	March 2021- January 2023
6	AIT08003CN DBT	Gene Expression Profiling for the Identification of Resistant/Tolerant Genes to Microsporidian Infection in Lamerin Breed of Silkworm, *Bombyx mori* L.	August 2019- July 2022
7	AIT08005MI CSB	Development and Evaluation of Bidensovirus resistant silkworm hybrids developed from marker assisted breeding lines -Phase II	March 2020- Feb 2023
8	PIT08004MI CSB	Study on Epigenetic and autophagy modifiers on induction of haploid microspore embryogenesis in mulberry	March 2020- Feb 2023
9	PRP08002MI CSB	Identification of powdery mildew resistant genes and validation of CAPS marker for Chalcone synthase	May 2019- April-2022
10	ARP- 08001 CI (Indo-Swedish project)	Studies on the genetic characterization, transmission and tissue distribution of Iflavirus infecting the Indian tropical tasar silkworm, *Antheraea mylitta*	April 2018 to March 2021

11	ARP 3606 DBT	Development of diagnostic tool for early detection of baculovirus causing tiger band disease in *Antheraea Proylei*	Feb. 2017- Feb. 2020
12	ARP 3605 DBT	Validation of the DNA markers in silkworm breed developed by introgression of DNA markers associated with NPV resistance using marker Assisted Selection Breeding and large scale field trial of the breed	Feb. 2017- Feb. 2020
13	AIT-3582 CSB	Development of Densovirus Resistant productive Bivoltine Silkworm breeds through Marker Assisted Selection	Sept. 16 – Aug. 18
14	AIT-3584 CSB	Identification of molecular markers associated with filament characters and its use in improvement of multivoltine breeds *(In collaboration with CSTRI, Bangalore*	Sept. 16 – Aug. 19
15	AIT-3583 CSB	Transkingdom RNA interference (*tk*RNAi) approach for resistance against BmNPV infection in silkworm *Bombyx mori L* (in collaboration with University of Delhi)	Sept. 16 – Aug. 19
16	CFC-7064 CSB	Characterization of Sericin for Cosmetic Applications (CSTRI, Bangalore, SBRL, M/s Hindustan Lever)	Apr.15 – Mar.16
17	ARP-3522 CSB	Isolation, Cloning and Characterization of Antibacterial Protein (s) from Silkworm, *Bombyx mori* (CSR&TI, Berhampore & SBRL)	Apr.15 – Mar.18
18	AIT 3540 CSB	Development of transgenic silkworms for the over expression of disease-resistant genes for enhanced immunity [in collaboration with IISc, Bangalore]	Apr.15 – Mar.18
19	AIT-3538 CSB	Development of fibroin fusion silk with antimicrobial, antioxidant and UV protective properties	Apr.15 – Mar.19
20	SBRL003 CSB Pilot study	Identification of uzifly maggot tissue protein that induces toxicity in silkworm *Bombyx mori*	Dec.14 - Nov.15
21	SBRL002 CSB Pilot study	Male Accessory Gland proteome analysis and characterization of Oviposition Stimulating substances (OSS) from Tasar Silkworm, *Antheraea mylitta*	Oct.14 - Sep.16
22	SBRL001 CSB	Cloning and expression of three drought resistance genes in mulberry (*Morus* spp.)	Oct.14 - Sep.15
23	ARP 3158 CSB	Expression profiling of genes associated with resistance to *Beauvaria bassiana* in *Bombyx mori* strains (SBRL & CSGRC)	Oct.14 - Sep.17
24	ARP 3513 DST-JSPS	Molecular characterization of Indian isolate (s) of Densovirus (DNV) and viral resistance gene in the host silkworm, *Bombyx mori* (SBRL	Jun.14 - May'16

		Kodathi, National Institute of Agrobiological Sciences, Japan)	
25	SBRL004 CSB	Discerning (Exploring) the mechanism of resistance and its pathways using microarray technique in silkworm *Bombyx mori* associated with nucleopolyhedrovirus (*Bm*NPV)	Apr.14 - Mar.15
26	AIB 3503 CSB	Identification of autumn-specific silkworm breeds/hybrids suitable for sub-tropical zones of North and North West India (CSB funded - with CSR&TI Pampore, NSSO Bangalore, CSTRI Bangalore)	Nov.13 - Oct.16
27	ARP 3495 CSB	Development of immuno-molecular techniques for early diagnosis of major infectious pathogens of silkworm, *Bombyx mori* L.	Feb.13 - Jan.16
28	ARP 3494 DBT	Host-parasite interaction: Transcriptome responses to parasitism in the silkworm *Bombyx mori*. [Jan.13-Dec.16]	Jan.13 - July16
29	ARP 3489 CSB	Identification and molecular characterization of major pathogens associated with flacherie disease in *Antheraea mylitta* (in collaboration with CTR&TI Ranchi)	Oct.12 - Sep.15
30	ARP 3477 CSB	Therapeutic control of microsporidiosis in mulberry silkworm through characterization of methionine amino peptidase enzyme genes (MetAP2) in *Nosema bombycis* (in collaboration with CSR&TI Mysore)	Jul.12 – Jun.15
31	AIT 3468 DBT	Development of RNA interference (RNAi) based nuclear polyhedrosis virus resistance transgenic silk moth. [(Jointly with CDFD, Hyderabad, APSSRDI, Hindupur) (Under Center of excellence on Genetics and Genomics of Silk moth to CDFD Hyderabad-Phase II	Sep.11 – March.17
32	AIG 3473 CSB	Molecular characterization of the flacherie causing virus in *Bombyx mori* with specific reference to RdRp (RNA Dependent RNA polymerase) gene and the regulatory elements in the viral genome.	Jan.12 – Dec.14
33	PIG-3465 CSB	Isolation and characterization of Microsatellites in mulberry (*Morus* spp.) genome.	2011-2014
34	ARP 3453 CSB	Identification, isolation and molecular characterization of major pathogens associated with flacherie disease in *Bombyx mori*.	Apr.11 – Mar.13

35	AIT 3448 CSB	Studies on differential gene expression profiling of *Bombyx mori* Nucleopolyhedrovirus (BmNPV) resistant and susceptible *Bombyx mori* silkworm strains.	Oct.10 – Mar.15
36	AIT 3446 DBT	Cloning, expression and characterization of yolk protein receptors from Indian silkworms.	Jun.10 – May'13
37	ARP 3429 DBT	Biology of microsporidians infecting silk moth [*Bombyx mori* and *Antheraea mylitta*]	Jun.09 – May'12
38	AIT 3428 DBT	Molecular mechanism of stress in silkworms *Bombyx mori* and *Samia cynthia ricini*	2009-2012
39	AIT 3427 DBT	Studies on diapauses related gene expression in diapauses induced eggs of multivoltine silkworm races of *Bombyx mori*.	Jun.09 – Jun.12
40	AIG 3426 DBT	Identification and mapping of DNA markers linked to NPV resistance in silkworm *Bombyx mori* L. [Jointly with APSSRDI, Hindupur]	Jun.09 – Jun.12
41	Pilot Project CSB	PCR-based detection of silkworm diseases	2006-2009
42	CSB	Functional Characterization of a brain-specific lipophorin receptor variant from the silkworm, *Bombyx mori*	2006-2010
43	DBT	Phylogeography of *Antheraea mylitta* (tropical tasar silkworm) and *Antheraea assamensis* (muga silkworm) (In collaboration with CDFD, Hyderabad; CMERTI, Jorhat and CTRTI, Ranchi).	Oct.05 – Oct.08
44	ARP-3351 CSB	Studies on the morphology, life cycle and pathogenicity of some microsporidia infecting silkworm, *Bombyx mori* L. and their identification (Collaborative project with CSR&TI, Berhampore)	Jul.05 – May'08
45	CSB	Construction of genetic linkage maps and QTL analysis of economically important traits in mulberry.	2005-2008
46	CSB	Characterization of Eri silkworms (*Samia ricini*) with morphological characters and molecular markers (In collaboration with CEMRTI, Jorhat).	Apr.05 – Mar.08
47	DBT	Identification of DNA markers for baculovirus resistance in silkworm, *Bombyx mori* L. (Network project with collaboration from CDFD, Hyderabad; CSRTI, Mysore; APSSDI, Hindupur and KSSDI, Bangalore).	Dec.04 – Mar.08
48	CSB	Molecular characterization of microsporidian infecting commercial silkworms	Jun.04 – May'09

49	CSB	Genome Analysis in Muga silkworm host plants (Som & Soalu): DNA profiling of certain elite genotypes using molecular markers, development of mapping population and linkage map.(In Collaboration with CMERTI, Jorhat)	2004-2007
50	DBT	Genetic analysis on *Wolbachia* affecting the natural parasites of domesticated silkworm, *Bombyx mori* and possibility on the analysis of its use as a vector) (In collaboration with Bangalore University, Bangalore).	Dec.01-Aug.03
51	CSB	Studies on genetic basis of hardiness in silkworm and MAS program.	Apr.01-Mar.04
52	CSB	Molecular genetics of differential growth and yield potential in silkworm *Bombyx mori*	Apr.01-Mar.04
53	CSB	Dissection of mulberry genome: further studies on genetic variability and characterization of genes associated with productivity.	Apr.01-Mar.04
54	CSB	Molecular breeding in silkworm using DNA markers.	Apr.98 – Mar.01
55	CSB	Molecular characterization of mulberry and silkworm germplasm – Phase I	Apr.96 – Mar.99
56	DBT	RFLP polymorphism analysis for NPV resistance in silkworm, *Bombyx mori*.	Dec.95 – Nov.98
57	DBT	Molecular characterization of silkworm varieties using micro and minisatellite DNA	Dec.94 - Dec.97
58	CSB	Genome analysis of silkworm, *Bombyx mori*	Jan.94 – Mar.98

3. Training

SBRL, Kodathi conducts training programmes that include project dissertation works and molecular biology techniques for M.Sc. / B. Tech. / M.Tech. students on charge basis depending on the type of programme. Under specified projects research fellows are appointed for the project period and are permitted to do Ph.D. under the University of Mysore as per the University rules and regulations.

(ii) The powers and duties of officers and employees

The brief information on powers and duties of officers and employees

working at SBRL are given below. For more details kindly visit http://csb.gov.in/right-to-information/rti-2/central-office/

SN	Designation	Power and duties
1	Director	Over all in-charge of Research and Administration of the laboratory
2	Scientist-D	Research and development works connected with technical aspects and administration
3	Scientist-C	Research and development works connected with technical aspects and administration
4	Scientist-B	Research and development works connected with technical aspects and administration
5	Asst. Director	Over all in-charge of administration, Accounts etc.
6	Superintendent	FAS, PRS and processing all the purchase proposals, settlement of TA/TTA/LTC/Medical reimbursement bills, Maintenance of SR, dead stock/Assets register etc.
7	Technical Assistants	Technical assistance and support in all Research and Development works
8	Asst. Technician	Diary, despatch, circulars circulations and operating Xerox machine
9	Staff Car Driver	Driving car for official work for staff and visiting experts/dignitaries, maintenance of vehicle and its utilization record
10	Multi Tasking Staff	Maintenance of cleanliness in around laboratory and office premises

Research Scholars on contract basis

11	Junior Research Fellow/ Research Scholar	Assisting in Research and Development works related to research projects

ORGANIZATION CHART
(Attached as Annexure 2)

(iii) The procedure followed in the decision making process, including channels of supervision and accountability;

As per the rules and regulations laid down by Central Silk Board and

Government of India. For more details kindly visit (http://csb.gov.in/right-to-information/rti-2/central-office/)

(iv) The norms set by it for the discharge of its functions;

As per the rules and regulations laid down by Central Silk Board and Government of India. For more details kindly visit (http://csb.gov.in/right-to-information/rti-2/central-office/)

(v) The rules and regulations, instructions, manuals and records, held by it or under its control or used by its employees for discharging its functions;

General Financial Rules, Fundamental Rules and Supplementary Rules Part-I, II & III and CCA/CCS Conduct Rules etc.

(vi) A statement of the categories of documents that are held by it or under its control;

Accounts	:	Cash book, Day book, Ledger, Financial statement of Accounts, Assets register
Establishment	:	Personal files, Service Records, Correspondence files
General Administration	:	Purchase files, stock registers, dispatch And dairy registers, general correspondence files

(vii) The particulars of any arrangement that exists for consultation with, or representation by, the members of the public in relation to the formulation of its policy or implementation thereof.

-NA-

(viii) A statement of the boards, councils, committees and other bodies consisting of two or more persons constituted as its part or for the purpose of its advice and as to whether meetings of those boards, councils, committees and other bodies are open to the public, or the minutes of such meetings are accessible for public.

Boards, councils, committees

1. Research Advisory Committee

Dr. N. K. Krishnakumar, Chairperson
Retired Deputy Director General
(Horticulture)
Indian Council of Agricultural Research
(ICAR)
New Delhi

Dr. Sanjay Ghosh Member
Institute of Bioinformatics
and Applied Biotechnology
Bangalore

Dr. Mohan Member
Principal Scientist
Division of Entomology, NBAIR,
Bangalore

Prof. Nataraj Karaba Member
Dept. of Crop Physiology, UAS, GKVK,

Bangalore

Dr. K. Vijayan Scientist D (Retired) Central Silk Board Bangalore	Member
The Director CSR&TI, Mysore	Member
The Director CSGRC, Hosur	Member
The Director SBRL, Kodathi Bangalore-560035	Member- Convenor

2. Research Council

Director	Chairperson
All Scientists	Members

3. Stores Purchase Committee

Dr. K.M. Ponnuvel, Scientist- D	Member
Dr. A. Ramesha, Scientist- C	Member
Dr. K. S. Tulsi Naik, Scientist- C	Member
Dr. Pawan Shukla, Scientist- C	Member
Dr. Himanshu Dubey, Scientist- B	Member
Dr. Manjula S., Superintendent	Member

4. Institute Bio-safety Committee

Dr. P. J. Raju Director, APSSRDI, Andhra Pradesh	Chairperson
Director Seri-biotech Research Laboratory, Bangalore	Member Convener
Prof. Upendra Nongthomba Dept. of Molecular Reproduction	Member

and Developmental genetics
Indian Institute of Science, Bangalore

Dr. R. Ashokan — DBT Nominee
Principal Scientist
Dept. of Biotechnology,
IIHR, Hesaraghatta. Bangalore

Dr. H. K. Basavaraja — Member
Retd. Scientist,
Central Silk Board, Bangalore

Dr. Raghunath — Member
Medical Officer (MBBS),
Govt. Medical Hospital,
Kodathi, Sarjapura Road, Bangalore

Dr. K. M. Ponnuvel — Member (Internal Expert)
Scientist D,
Seri biotech Research Laboratory,
Bangalore

Dr. A. R. Pradeep — Member (Internal Expert)
Scientist D,
Seri biotech Research Laboratory,
Bangalore

(ix) A directory of its officers and employees.

A directory of Officers and employees is enclosed (Attached as Annexure 3)

(x) The monthly remuneration received by each of its officers and employees, including the system of compensation as provided in its regulations.

The monthly remuneration received by each Officer / employee is enclosed (Attached as Annexure 4)

(xi) The budget allocated to each of its agency, indicating the particulars of all plans, proposed expenditures and reports on

disbursements made.

-NA-

(xii) The manner of execution of subsidy programmes, including the amounts allocated and the details of beneficiaries of such programmes.

-NA-

(xiii) Particulars of recipients of concessions, permits or authorisations granted by it.

-NA-

(xiv) Details in respect of the information, available to or held by it, reduced in an electronic form.

Available on the SBRL website.

(xv) The particulars of facilities available to citizens for obtaining information, including the working hours of a library or reading room, if maintained for public use

-NA-

(xvi) The names, designations and other particulars of the Public Information Officers

Details of Central Public Information Officer (CPIO)

Dr. K. M. Ponnuvel,

Scientist D & In-charge

Seri-Biotech Research Laboratory,

CSB Campus, Sarjapur Road, Carmelram Post, Kodathi,

Bangalore - 560 035, Karnataka.

Email- sbrl@rediffmail.com, sbrlban.csb@nic.in

Phone- +91 80 29519997

Details of Appellate Authority

Shri. R. R. Okhandiar, IFS

Member Secretary,

Central Silk Board, Bangalore.

Phone- +91 80 26680190; Email- ms.csb@nic.in

(xvii) Such other information as may be prescribed; and thereafter update these publications every year.

Annual report

Annexure 1

List of research publications

1. Esvaran VG, Ponnuvel S, Jagadish A., Savithri, HS, Subramanya, HS, Ponnuvel KM. Cloning, Expression and Characterization of Spore Wall Protein 5 (SWP5) of Indian Isolate NIK-1S of Nosema bombycis. The Protein Journal, 2022, 41(6), 596-612.

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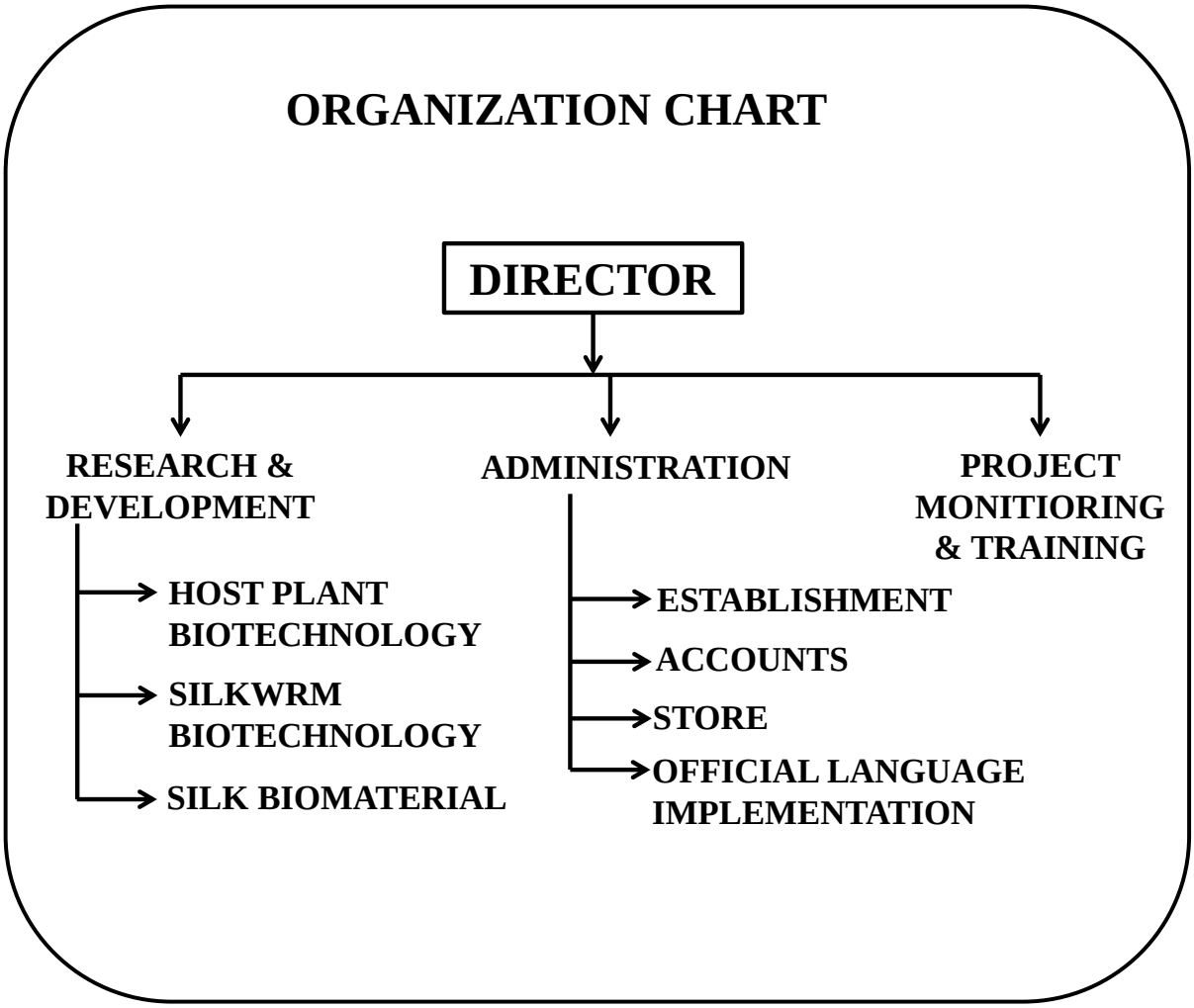
Annexure 2


ORGANIZATION CHART
DIRECTOR
RESEARCH & DEVELOPMENT
ADMINISTRATION
PROJECT MONITIORING & TRAINING
HOST PLANT BIOTECHNOLOGY
SILKWRM BIOTECHNOLOGY
SILK BIOMATERIAL
ESTABLISHMENT
ACCOUNTS
STORE
OFFICIAL LANGUAGE IMPLEMENTATION

Annexure 3

Directory of officers and employees

S. N.	NAME	DESIGNATION	Contact details
1	Dr. K.M. Ponnuvel	Scientist-D & Director (Incharge)	Phone: +91 80 29519997 Email : sbrlban.csb@nic.in sbrl@rediffmail.com
2	Dr. K.S. Tulsi Naik	Scientist-C	tulsinaik.csb@gov.in
3	Dr. A. Ramesha	Scientist-C	ramesha.csb@gmail.com
4	Dr. Pawan Shukla	Scientist-C	shklpwn@gmail.com
5	Dr. G. Subrahmanyam	Scientist-C	subbugangavarapu@gmail.com
6	Dr. Rajal Debnath	Scientist-C	rajal.debnath@gmail.com
7	Dr. Himanshu Dubey	Scientist-B	hemu.bt@gmail.com
8	Mrs. Manjula S.	Supdt. (Admin)	smanjula7777@yahoo.com
9	Shri. K.M. Humayun	STA	kmhumayun786@gmail.com
10	Shri R.N. Sreekantaiah	STA	rnsreekantaiah@gmail.com
11	Shri. G. Raghavendar	Field Assistant	gundi.raghava21@gmail.com
12	Shri. Srinivas Raju K.V.	Field Assistant	srinivasrajuster@gmail.com
13	Shri K. Nanjundappa	Staff car driver	NA
14	Shri Kenchappa	MTS	NA
15	Shri N. Pillappa	SFW (TS)	NA
16	Shri E. Shivanna	SFW (TS)	NA
17	Smt. Kanthamma	SFW (TS)	NA
18	Shri. R. Amaresha	SFW (TS)	NA
19	Shri L.P. Sampangi Rao	Time Scale farm worker	NA

Annexure 4

Monthly remuneration received by each Officer / employees

[As on 30.11.2022]

S.N.	NAME	DESIGNATION	Gross Salary (Rs.)
1	Dr. K.M. Ponnuvel	Scientist-D & In-charge	201,006.00
2	Dr. K.S. Tulsi Naik	Scientist-C	132,036.00
3	Dr. A. Ramesha	Scientist-C	132,036.00
4	Dr. Pawan Shukla	Scientist-C	132,036.00
5	Dr. G. Subrahmanyam	Scientist-C	132,036.00
6	Dr. Rajal Debnath	Scientist-C	132,036.00
7	Dr. Himanshu Dubey	Scientist-B	111,081.00
8	Mrs. Manjula S.	Supdt. (Admin)	120,468.00
9	Shri. K.M. Humayun	STA	113,868.00
10	Shri R.N. Sreekantaiah	STA	107,598.00
11	Shri. G. Raghavendar	Field Assistant	47,868.00
12	Shri. Srinivas Raju K.V.	Field Assistant	47,868.00
13	Shri K. Nanjundappa	Staff car driver	90,768.00
14	Shri Kenchappa	MTS	62,718.00
15	Shri N. Pillappa	SFW (TS)	37,838.00
16	Shri E. Shivanna	SFW (TS)	37,838.00
17	Smt. Kanthamma	SFW (TS)	37,838.00
19	Shri. R. Amaresha	SFW (TS)	37,838.00
20	Shri L.P. Sampangi Rao	Time Scale farm worker	16,450.00