

LIST OF R & D PROJECTS (1994 – August 2024)

SN	Project Code	Project title	Project duration
1	SRP08012 MNC CSB	Development of rapid antigen test kit for the diagnosis of cytoplasmic polyhedrosis in Vanya Silkworms (<i>A. mylitta</i> , <i>A. assamensis</i> , <i>A. proylei</i>)	Feb 2024- Jan 2026
2	SIT08015 MIC CSB	Validation of SNP markers associated with economic traits in <i>Bombyx mori</i> L	March 2024-Feb 2026
3	SIT08014 MIC CSB	Development of molecular barcodes for commercially important silkworm breeds/ hybrids	March 2024-Feb 2026
4	PRP08013 MIC CSB	Mapping and Evaluation of mulberry rootstock for rootrot (<i>Lasiodiplodia theobromae</i>) resistance	March 2024-Feb 2027
5	AIE08011MI CSB	OST for evaluation of BmBDV resistant mulberry silkworm hybrids at CSB/Dos stations. OFT for the evaluation of BmBDV resistant mulberry silkworm Double Hybrids at farmer's field.	July 2023- June 2025
6	ARP08007 MI CSB	Biological and molecular characterization of virosis in Muga silkworm, (<i>Antheraea assamensis</i> Helfer)	March 2022- February 2025
7	AIB08008 MI CSB	Development and Evaluation of Eri silkworm (<i>Samia ricini</i> Donovan) breeds/ hybrids with improved productivity	March 2022- February 2025
8	AIC08009 CN CSB	Profiling of lipid, protein and carbohydrate of mulberry mealybug <i>Maconellicoccus hirsutus</i> (Green)	April 2022- March 2025
9	AIT08010 MI CSB	Transcriptome study for susceptibility of Muga silkworm (<i>Antheraea assamensis</i> Helfer) to cypovirus..	April 2022- March 2026
10	AIT 08006 EF (Indo-Swedish project)	Development of lateral flow assay (LFA) kit for diagnosis of pebrine disease in silkworms	March 2021- January 2023
11	AIT08003CN DBT	Gene Expression Profiling for the Identification of Resistant/Tolerant Genes to Microsporidian Infection in Lamerin Breed of Silkworm, <i>Bombyx mori</i> L.	August 2019- July 2022
12	AIT08005MI CSB	Development and Evaluation of Bidsenovirus resistant silkworm hybrids developed from marker assisted breeding lines -Phase II	March 2020- Feb 2023

13	PIT08004MI CSB	Study on Epigenetic and autophagy modifiers on induction of haploid microspore embryogenesis in mulberry	March 2020- Feb 2023
14	PRP08002MI CSB	Identification of powdery mildew resistant genes and validation of CAPS marker for Chalcone synthase	May 2019- April-2022
15	ARP- 08001 CI (Indo-Swedish project)	Studies on the genetic characterization, transmission and tissue distribution of I flavivirus infecting the Indian tropical tasar silkworm, <i>Antheraea mylitta</i>	April 2018 to March 2021
16	ARP 3606 DBT	Development of diagnostic tool for early detection of baculovirus causing tiger band disease in <i>Antheraea Proylei</i>	Feb. 2017- Feb. 2020
17	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
18	AIT-3582 CSB	Development of Densovirus Resistant productive Bivoltine Silkworm breeds through Marker Assisted Selection	Sept. 16 – Aug. 18
19	AIT-3584 CSB	Identification of molecular markers associated with filament characters and its use in improvement of multivoltine breeds (<i>In collaboration with CSTRI, Bangalore</i>)	Sept. 16 – Aug. 19
20	AIT-3583 CSB	Transkingdom RNA interference (<i>tkRNAi</i>) approach for resistance against BmNPV infection in silkworm <i>Bombyx mori L</i> (in collaboration with University of Delhi)	Sept. 16 – Aug. 19
21	CFC-7064 CSB	Characterization of Sericin for Cosmetic Applications (CSTRI, Bangalore, SBRL, M/s Hindustan Lever)	Apr.15 – Mar.16
22	ARP-3522 CSB	Isolation, Cloning and Characterization of Antibacterial Protein (s) from Silkworm, <i>Bombyx mori</i> (CSR&TI, Berhampore & SBRL)	Apr.15 – Mar.18
23	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
24	AIT-3538 CSB	Development of fibroin fusion silk with antimicrobial, antioxidant and UV protective properties	Apr.15 – Mar.19
25	SBRL003 CSB Pilot study	Identification of uzifly maggot tissue protein that induces toxicity in silkworm <i>Bombyx mori</i>	Dec.14 - Nov.15
26	SBRL002 CSB Pilot study	Male Accessory Gland proteome analysis and characterization of Oviposition Stimulating substances (OSS) from Tasar Silkworm, <i>Antheraea mylitta</i>	Oct.14 - Sep.16

27	SBRL001 CSB	Cloning and expression of three drought resistance genes in mulberry (<i>Morus</i> spp.)	Oct.14 - Sep.15
28	ARP 3158 CSB	Expression profiling of genes associated with resistance to <i>Beauveria bassiana</i> in <i>Bombyx mori</i> strains (SBRL & CSGRC)	Oct.14 - Sep.17
29	ARP 3513 DST-JSPS	Molecular characterization of Indian isolate (s) of Densovirus (DNV) and viral resistance gene in the host silkworm, <i>Bombyx mori</i> (SBRL Kodathi, National Institute of Agrobiological Sciences, Japan)	Jun.14 - May'16
30	SBRL004 CSB	Discerning (Exploring) the mechanism of resistance and its pathways using microarray technique in silkworm <i>Bombyx mori</i> associated with nucleopolyhedrovirus (<i>BmNPV</i>)	Apr.14 - Mar.15
31	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
32	ARP 3495 CSB	Development of immuno-molecular techniques for early diagnosis of major infectious pathogens of silkworm, <i>Bombyx mori</i> L.	Feb.13 - Jan.16
33	ARP 3494 DBT	Host-parasite interaction: Transcriptome responses to parasitism in the silkworm <i>Bombyx mori</i> . [Jan.13-Dec.16]	Jan.13 - July16
34	ARP 3489 CSB	Identification and molecular characterization of major pathogens associated with flacherie disease in <i>Antheraea mylitta</i> (in collaboration with CTR&TI Ranchi)	Oct.12 - Sep.15
35	ARP 3477 CSB	Therapeutic control of microsporidiosis in mulberry silkworm through characterization of methionine amino peptidase enzyme genes (MetAP2) in <i>Nosema bombycis</i> (in collaboration with CSR&TI Mysore)	Jul.12 - Jun.15
36	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
37	AIG 3473 CSB	Molecular characterization of the flacherie causing virus in <i>Bombyx mori</i> with specific reference to RdRp (RNA Dependent RNA polymerase) gene and the regulatory elements in the viral genome.	Jan.12 - Dec.14

38	PIG-3465 CSB	Isolation and characterization of Microsatellites in mulberry (<i>Morus</i> spp.) genome.	2011-2014
39	ARP 3453 CSB	Identification, isolation and molecular characterization of major pathogens associated with flacherie disease in <i>Bombyx mori</i> .	Apr.11 – Mar.13
40	AIT 3448 CSB	Studies on differential gene expression profiling of <i>Bombyx mori</i> Nucleopolyhedrovirus (BmNPV) resistant and susceptible <i>Bombyx mori</i> silkworm strains.	Oct.10 – Mar.15
41	AIT 3446 DBT	Cloning, expression and characterization of yolk protein receptors from Indian silkworms.	Jun.10 – May'13
42	ARP 3429 DBT	Biology of microsporidians infecting silk moth [<i>Bombyx mori</i> and <i>Antheraea mylitta</i>]	Jun.09 – May'12
43	AIT 3428 DBT	Molecular mechanism of stress in silkworms <i>Bombyx mori</i> and <i>Samia cynthia ricini</i>	2009-2012
44	AIT 3427 DBT	Studies on diapauses related gene expression in diapauses induced eggs of multivoltine silkworm races of <i>Bombyx mori</i> .	Jun.09 – Jun.12
45	AIG 3426 DBT	Identification and mapping of DNA markers linked to NPV resistance in silkworm <i>Bombyx mori</i> L. [Jointly with APSSRDI, Hindupur]	Jun.09 – Jun.12
46	Pilot Project CSB	PCR-based detection of silkworm diseases	2006-2009
47	CSB	Functional Characterization of a brain-specific lipophorin receptor variant from the silkworm, <i>Bombyx mori</i>	2006-2010
48	DBT	Phylogeography of <i>Antheraea mylitta</i> (tropical tasar silkworm) and <i>Antheraea assamensis</i> (muga silkworm) (In collaboration with CDFD, Hyderabad; CMERTI, Jorhat and CTRTI, Ranchi).	Oct.05 – Oct.08
49	ARP-3351 CSB	Studies on the morphology, life cycle and pathogenicity of some microsporidia infecting silkworm, <i>Bombyx mori</i> L. and their identification (Collaborative project with CSR&TI, Berhampore)	Jul.05 – May'08
50	CSB	Construction of genetic linkage maps and QTL analysis of economically important traits in mulberry.	2005-2008
51	CSB	Characterization of Eri silkworms (<i>Samia ricini</i>) with morphological characters and molecular markers (In collaboration with CEMRTI, Jorhat).	Apr.05 – Mar.08

52	DBT	Identification of DNA markers for baculovirus resistance in silkworm, <i>Bombyx mori</i> L. (Network project with collaboration from CDFD, Hyderabad; CSRTI, Mysore; APSSDI, Hindupur and KSSDI, Bangalore).	Dec.04 – Mar.08
53	CSB	Molecular characterization of microsporidian infecting commercial silkworms	Jun.04 – May 09
54	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
55	DBT	Genetic analysis on <i>Wolbachia</i> affecting the natural parasites of domesticated silkworm, <i>Bombyx mori</i> and possibility on the analysis of its use as a vector) (In collaboration with Bangalore University, Bangalore).	Dec.01- Aug.03
56	CSB	Studies on genetic basis of hardiness in silkworm and MAS program.	Apr.01- Mar.04
57	CSB	Molecular genetics of differential growth and yield potential in silkworm <i>Bombyx mori</i>	Apr.01- Mar.04
58	CSB	Dissection of mulberry genome: further studies on genetic variability and characterization of genes associated with productivity.	Apr.01- Mar.04
59	CSB	Molecular breeding in silkworm using DNA markers.	Apr.98 – Mar.01
60	CSB	Molecular characterization of mulberry and silkworm germplasm – Phase I	Apr.96 – Mar.99
61	DBT	RFLP polymorphism analysis for NPV resistance in silkworm, <i>Bombyx mori</i> .	Dec.95 – Nov.98
62	DBT	Molecular characterization of silkworm varieties using micro and minisatellite DNA	Dec.94 - Dec.97
63	CSB	Genome analysis of silkworm, <i>Bombyx mori</i>	Jan.94 – Mar.98