MINUTES OF THE 60th MEETING OF RESEARCH COUNCIL

28th OCTOBER, 2017 AT CSRTI-MYSURU

The 60th meeting of Research Council of CSRTI-Mysuru was held on 28th October, 2017 to review the new project proposals/concept notes, progress of on-going project/programmes and concluded research projects of the Main Institute and its nested units. The meeting was presided over by Prof. S.R. Niranjana, Vice Chancellor, Gulbarga University and the Chairman of newly constituted Research Advisory Committee (RAC). The list of the participants is appended at Annexure **-** I.

Dr. V. Sivaprasad, Director, CSRTI-Mysuru welcomed Prof. S.R. Niranjana, RAC chairman on behalf of the institute and scientists for the RC meeting. He also welcomed all the participant scientists of the Institute and nested units for the meeting. For the information of the house, Director informed that RAC Chairperson has consented for holding the next RAC meeting on 27th & 28th November 2017 and circular will be issued to all the concerned shortly. Further Director informed that during last week, Chairman and Director attended the RCC meeting at CSB-Bangalore. During the meeting various decisions were taken on the procedure to be adopted for approval of new projects. Accordingly, Prof. Niranjana volunteered to witness the presentation of new concepts proposed by the scientists and approve the concepts for further processing. The concept notes approved by the RC would be sent to CO for approval of concept, followed by project preparation, seeking experts comments, presentation before the RAC and the RAC recommendations would be sent to CO for further processing. RCC would consider the proposals and approve for coding. With this introduction, Director on behalf of all the scientists presented a bouquet and once again welcomed Prof. Niranjana for the RC meeting.

The RAC Chairman, Prof. Niranjana in his opening remarks thanks to CSB for accepting as RAC Chairman and he has worked at University of Mysore for the last 25-26 years in the area of Botany/Bio-technology. He has also closely worked with the CSRTI-Mysore scientists. He advised the scientists, to prepare the full-fledged project proposals within 2 months after the approval of the concept by CO; following which RAC would recommend the project for consideration based on experts review and RCC will finally approve the projects for implementation. Accordingly, RCC would like to finalize the new projects before September and February meetings and in this context, I am here today to discuss the concept notes.

He also said that nowadays industry-oriented research is the need of the hour and newly emerging area; one should not stick on to convention or traditional type of research in sericulture institutes. The research projects should be application oriented, however molecular approaches need to be undertaken to understand the basic mechanism. He advised the Scientists to publish in reputed journals which have an impact factor in sericulture. He also informed that RCC opined that scientists need to formulate institutional, as well as projects between multiple institutes, consortium projects, co-ordinated projects and network projects in the thrust areas. He appreciated the efforts of CSRTI-Mysuru in developing good technologies/products for the benefit of farmers including commercialization and patents. He also informed that RCC would be meeting at CSRTI-Mysore during last week of February 2018. He finally thanked CSRTI-Mysuru for the opportunity to interact with the scientists of this institute.

Later all the participants introduced themselves to the RAC chairperson.

CONFIRMATION OF THE MINUTES OF THE 59th MEETING HELD ON 21st MARCH 2017: As no comments were received from any of the members, the minutes of the 59th RC meeting were confirmed.

REVIEW OF FOLLOW UP ACTION TAKEN ON DECISIONS OF PREVIOUS MEETING: The Director informed the committee about the follow up action taken on the decisions of previous meeting and appreciated the efforts of the scientists who have initiated new projects and for achieving the targets set for the year.

REVIEW OF NEW CONCEPTS/PROJECTS PROPOSED FOR CONSIDERATION

As per agenda, the review of concept notes were taken up and deliberated. Prof. S.R. Niranjana, RAC chairman actively interacted with the PIs and suggested the needful for improving and their immediately after presentation. The project wise decisions made are as follows:

1. Demonstration and popularization of Pheromone trap against silkworm Uzifly, *Exorista bombycis* (TOT)

Decision: The Committee discussed the concept note critically and approved as a TOT project as continuation of the concluded project for large scale evaluation of the technology developed which is for the management of perennial uzi problem. It was suggested to include an objective for the product commercialization and estimate cost benefit ratio in collaboration with NBIAR & DoSs. Further, the investigator was suggested to revise the budget based on the number of crops being covered and prepare the full proposal within a week's time.

[Action: Mr. J.B. Narendra Kumar, Sc-D, PML**]**

2. Evaluation of the efficacy of *Trichomalopsis uziae* as a bio-control agent against Uzifly and development of mass production technology

Decision: The Committee discussed the concept note and approved with a suggestion to discuss with the collaborators and include the research on dynamics of parasitism of *Trichomalopsis and Nesolynx thymus on* Uzifly as one of the objective. Preliminary work should be conducted in this regard for inclusion in the proposal and PI was suggested to submit the proposal by February 2018.

[Action: Mr. J.B. Narendra Kumar, Sc-D, PML**]**

3. Identification of potential parasitoids of *Maconellicoccus hirsutus* (Green, 1908) (Hemiptera: Pseudoccidae) and augmentation for Biological control on mulberry (in collaboration with NBAIR, Bangalore)

Decision: The Committee discussed the concept note critically and approved the proposal with a suggestion to revise as per the suggestions made after discussing with NBAIR scientists as there is a lot of scope for the mass production of parasitoids. The PI was suggested to work out the budget and submit the proposal for CO clearance.

[Action: Dr. S. Mahiba Helen, Scientist-C, RSRS, Salem**]**

4. Comprehensive analysis of molecular epigenetic mechanisms associated with silk production and immune responses in silkworms

Decision: The Committee discussed the concept note and approved the same as the proposal is focusing on virus-host-environmental interactions at epigenetic level. The PI was suggested to prepare full-fledged proposal in consultation with Dr. Jyothi Singh (NCL-Pune) and Dr. K.M. Ponnuvel (SBRL-Bangalore). The PI was also suggested to submit the proposal for CO clearance so that the same could be presented in the next RAC.

[Action: Dr. Ranjini M S, Sci-B, BBL**]**

5. Surface sterilization of Silkworm seed through Vaporization Technique

Decision: The Committee discussed the concept note and approved the same as a pilot study as the concept is not properly framed and objectives does not match. The PI was suggested to develop a workable model based on preliminary work.

[Action: Dr.A.R. Narasimha Nayaka, Sc-D, S.W.Path**]**

6. Validation of a Phenolic Compound for effective sanitation in sericulture (Industry sponsored project**)**

Decision: The Committee discussed the concept note critically and approved the project with a suggestion to revise the proposal as per the guidelines set by CO for the Industry Sponsored projects. The PI was also suggested to submit the proposal for CO clearance and place before RAC on 25th Nov. 2017.

[Action: Dr. Mary Josepha, Sc-D, S.W.Path**]**

7. Comparative genomic analysis of transvovarially and non transovarially transmitted pebrine causative agents

Decision: The Committee discussed the concept note and approved as it is a target oriented project to identify the gene(s) responsible for transovarial transmission which can be utilized for the detection/discrimination/management of Nosema infections in silkworm. The PI was suggested to develop single spore cultures of various Nosema spp. and undertake shallow whole genome sequencing to differentiate transovarial & non- transovarial ones. The PI was also suggested to submit the proposal for CO clearance.

[Action: Dr.G.Mallikarjuna, Sc-B, S.W.Path**]**

8. Popularization of G4 mulberry variety in South India

Decision: The Committee discussed the concept note and approved the same as a TOT project. This is continuation of Mulberry Variety Authorization Programme (G4 was authorized for South zone on 25th Oct. 2017) by CSB for establishing sufficient seed gardens and popularize the G4 variety on large scale in southern states. The PI was also suggested to submit the proposal within in a week's time.

[Action: Dr.B.T. Srinivas, Sc-D, FMS**]**

9. Development of multivoltine breeds with improved silk quality utilizing bivoltine breeds

Decision: The Committee discussed the concept note critically and approved the project with a suggestion to revise the proposal based on deliberations and should be taken up on priority as a follow up of Breeders meet recommendations. The PI was also suggested to submit the proposal for CO clearance and place before RAC on 25th Nov. 2017.

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[Action: Dr.K.B.Chandrashekar, Sc-D, MBL**]**

10. Evaluation of superior triploid genotypes for yield and adaptability under varied agro-climatic conditions (Multi-locational experiment**)**

Decision: As per last RC decision, the proposal was sent to CO and same was cleared by CO for obtaining referee comments. The PI presented the project proposal along with referee's comments (referees recommended for implementation). The RC suggested presenting the proposal before RAC for approval.

[Action: Dr. T. Mogili, Sc-D, MBG**]**

11. Evolution of highly productive and widely adopted mulberry using exotic and wild germplasm

Decision: As per the last RC suggestion, the concept note was sent to CO for clearance and the same was cleared by CO and suggested to obtain referees comments. The Committee discussed the referees comments received on the project and suggested to place before RAC for approval.

[Action: Dr. Vijayanthi, Sc-B, Mol. Bio. Lab-1**]**

12. Primary Yield evaluation for identification of superior hybrids with improved yield and adaptability from the progenies raised using drought adaptive traits under suboptimal irrigation conditions

Decision: As per the last RC approval, the concept note was cleared by CO and referees comments were obtained. The Committee discussed the referee comments and suggested to place before RAC for approval.

[Action: Dr. Tanmoy Sarkar, Sc-B, MBG]

REVIEW OF CONCLUDED AND ONGOING PROJECTS

During the meeting Director informed that the next RAC meeting is being scheduled on 27&28th November 2017 as per RAC chairman consent and the RAC meeting circular is also circulated to all sections and concerned scientists needs to submit the progress report immediately. Due to lack of time, discussions on on-going and new projects would be undertaken the section-wise in detail, after receipt of RAC materials for the preparation of Agenda and explanatory notes.

1. Projects to be concluded during 2017 – 18

#	Code & Title	Period
1	PIB-3457: Development of disease resistant and productive mulberry genotypes with special reference to root-rot and root-knot diseases suitable to the seri-zones of South India - S. Gandhi Doss, Rajashekar, K. and Pratheesh Kumar PM	Jan. 2012 to Dec.2017

2	ARP-3519: Silkworm disease monitoring in seed & commercial crops - A. V. Mary Josepha Sherry and H.M.Shanbogue	Oct.2014 to March 2018
3	PPA-3549: Evaluation of modified spacing with special reference to planting geometry for sustainable mulberry leaf production -Vinod Kumar Yadav and M. Noble Morrison	Jan. 2016 to Dec. 2017
4	PRE-3546: Identification, characterization, synthesis and field evaluation of sex pheromone of the mulberry leaf roller *Diaphania pulverulentalis*- J.B. Narendra Kumar, N. Morrison, N. Bakthavatsalam and Subhaharan (in collaboration with NBAIR, Bangalore)	Jan 2016 to Dec 2017
5	ARP-3597: Standardization and validation of LAMP (Loop mediated isothermal amplification reaction) technique for the detection of Nosema bombycis infection in silkworm - V. Sivaprasad, G. Mallikarjuna, . L. Satish, S. Manthira Moorthy and A.V. Mary Josepha	Oct 2016 to Sept 2017
6	MOE-3564: Impact of CPP on sericulture development of North Karnataka Clusters - Raveendra M. Mattigatti, M. K. Raghunath, A. Y.Srinivasalu, Y. Sanathkumar, and Ramesh Kumar	Feb 2016 to Jan 2018
7	MOE-3565: Studies on yield gap in mulberry cocoon production in the states of AP and Telangala - M.A. Shanthan Babu ,G.V.Prasad, T.V.S.S.Rao, P.S.Reddy, B.Srinath, and V. Sivaprasad	Feb 2016 to Jan 2018
8	MOE-3562: Socio Economic Impact of CPP in bivoltine seri farmers in Tamilnadu - S.Rajakumar, J. Ravikumar, E. Rajalaxmi, N.G.Selvaraju , A.G.K.Daniel, G.Punithavathy and Sri.Humayun sharief	Feb 2016 to Jan 2018
9	PRP-3567: Assessing the efficacy of recommended chemicals in insect/disease/ weed management and their impact on soil biota of mulberry ecosystem - S.Balasaraswathi, .S.Rajakumar, Noble Morrison, Santhan Babu and S.N.Pallavi	April 2016 to March 2019

2. **List of on-going Projects during 2017-18**

#	**Project Code &Title**	**Period**
1	PPA-3552: Development of Technology for Production of Organic Silk - V. K. Yadav, Merry Josepha, Sibayan Sen, Shobana, P.C. Santha and Chandrashekar	Jan 2016 to Dec.2018
2	PPS-3553: Carbon sequestration in mulberry cultivation and strategies to enhance carbon sequestration - Vedavyas, Vinod Kumar Yadav, Gayatri and Sybian Sen	Jan 2016 to Dec.2018
3	AIB-3534: Development of improved Crossbreeds of Silkworm suitable to south India - Dr.K.B.Chandrashekhar; Soudaminy P.V, Mary Josepha and M.N. Chandrashekhar)	Apr 2015 to Mar 2019
4	AIB 3509: Development of productive bivoltine silkworm breeds/ hybrids tolerant to BmNPV - S. Manthira Moorthy	July 2014 to Dec 2018
5	PIN-3563: Evaluation of improved mulberry genotypes for yield potential, nutrient uptake and use efficiency - T. Mogili, P.V. Vaijayanthi,. Sibayan Sen, V. Sobhana, E. Bhuvaneshwari and Y. Thirupathaiah	Feb 2016 to March 2019
6	AIB-3561: Identification of Robust bivoltine silkworm hybrids suitable for high temperature and high humidity conditions - S. Purushotham and D.S. Somaprakash, Vineet kumar and T.V.S.Rao	Feb 2016 to March 2019
7	AIB 3537: Initiatives for improvement of Silkworm Breeding (in collaboration with Indo-Bulgaria) - S. Manthira Moorthy and V. Sivaprasad	Jan 2015 to Dec 2019

8	AIP-3568: Development of value added product from spent pupae of mulberry silkworm (in collaboration with NIANP) - Y. Thirupathaiah, E. Bhuvaneswari, M. Chandrashekaraiah, N.M. Soren and K.S.Prasad	May 2016 to March 2020
9	PPA-3580: Soil health cards for sericulture farmers in southern states - Sobhana V., S.Sen, P.Sudhakar, Dahira Beevi and B.Vijaya Naidu	April 2016 to March 2019
10	PRP-3591: Identification of resistance in mulberry for root knot nematode - ArunaKumar G S. and T. Mogili	Oct. 2016 to Oct 2019
11	PIP-3592: Identification of indices for abiotic stress tolerance in mulberry - Gayathri.T. S. Gandhi Doss, Rajashekar, K and Tanmoy Sarkar	Oct. 2016 to Sept.2019
12	AIT-3593: Transcriptome analysis for identi-fication of molecular markers for quality - Kusuma L, S. Manthira Moorthy and M. N. Chandrashekar	Oct. 2016 to Oct 2019
13	AIP-3594: Feed supplementation studies for improving chawki rearing in CRCs - E. Bhuvaneswari ,Y. Thirupathaiah and C.Parameshwar	Oct.2016 to Mar. 2019
14	MOE-3595: Development of Seri-business models for pre-cocoon enterprises - Joycy Rani D and Jayaram. H	Oct. 2016 to Aug 2018
15	AIB-3596: Development of multi-viral disease tolerant bivoltine silkworm breeds/ hybrids by MAS -Satish L and Kusuma L,	Oct. 2016 to Aug 2020
16	AIT 3556: To conduct multi-locational field trials on transgenic BmNPV resistant silkworm strains and generate data for their regulatory approval - (DBT-BIRAC: in collaboration with CDFD, Hyderabad) - V. Sivaprasad and S. Manthira Moorthy	Dec 2015 to Oct 2019
17	AIB 3524: Improvement of Pure Mysore race for productivity and Silk Quality - K.B.Chandrashekhar , S. B. Kulkarni, Soudaminy.P.V and M. N. Chandrashekar	Jan 2015 to June 2018
18	PRP-3567: Efficacy of recommended chemicals in insect/ disease/weed control and their impact on soil biota of in mulberry ecosystem - S.Balasaraswathi, .S.Rajakumar, Noble Morrison, Santhan Babu and S.N.Pallavi	April 2016 to March 2019

3. List of new projects initiated

#	Project Code &Title	Period
1	PIE 3511: Development of Distinctiveness, Uniformity and Stability (DUS) Descriptors for Mulberry (*Morus spp*) and their Validation- Phase II (Funded by PPV & FRA, New Delhi) - V. Sivaprasad, V. Girish Naik T. Mogili and P.V. Vaijayanthi	April 2016 to March 2019
2	PRP 3618: Popularization of *Rot- fix* for management of root rot disease of mulberry among sericulture farmers of southern states - Pratheesh Kumar, P. M., . S. Rajakumar., H. Jayaram, T.V. Srinivasarao and A. Venugopal	July 2017 to June 2019
3	PIC 3615: Mapping QTLs for alkalinity tolerance in Mulberry (*Morus spp*) - P.V. Vaijayanthi, T. Mogili, Mahalingappa, K. C and Sanath Kumar, Y. N.	August-2017 to February 2021
4	PIC 3620: Engineering photosynthesis in mulberry for resilience to climate change: A C4 approach - Tanmoy Sarkar, Prof. A. S. Raghavendra, Univ. of Hyderebad, T. Mogili, S. Gandhi Doss, Gayathri, T. and Arun Kumar, G. S.(Collaboration with Univ. of Hyderebad)	Aug. 2017 to July 2021
5	MOE 3621: Impact of CPP on Socio-Economic and communication aspects of Women beneficiary - G.S. Geetha, Joyce Rani, Vidyunmala and Punithavathi	Sept.2017 to August 2019

List of Ongoing Collaborative projects with other CSB Institutions:

#	Project Code-Title & Period	Institutions
1	ARP 3605 (DBT): Validation of 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 - S. M. Moorthy. (Mar 2017-Feb 2020)	SBRL, Bangalore CSRTI, Pampore CSRTI-Berhampore
2	AIB 3578: Evaluation of exotic bivoltine silkworm breeds to identify promising parental genetic resources - KIshore Kumar & Soudamini. (June 2016 – Sept.2019)	CSGRC-Hosur CSRTI-Berhampore CSRTI-Mysore CSRTI-Pampore
3	AIB 3577: Evaluation of multivoltine germplasm to identify potential parents for developing cross breeds for Southern and Eastern India - Chandrashekar B K & S. B. Kulkarni. (Mar 2016-Feb 2019)	CSGRC-Hosur CSRTI-Berhampore CSRTI-Mysore
4	PIE 3575: Evaluation of mulberry genetic resources for functional traits for resilience to climate change – T. M. Mogili. (May 2016 – Aug. 2019)	CSGRC-Hosur CSRTI-Berhampore CSRTI-Mysore
5	CYR 7078: Studies on sericin dissolution characteristics – MN Chandrasekhar (Jan. 2016 – Jan. 2018)	CSTRI-Bangalore
6	ARP – 3607: Development of antibody based biosensor for early and rapid detection of silkworm viruses at Chawki Rearing Centres - A.V. Mary Josepha & L. Satish (March, 2017 to Feb. 2020)	CSRTI-Pampore

RAC-Chairman once again reiterated the decisions of RCC and advised to conduct a meeting at Mysore with the investigators of the new project on C-4 mulberry and experts in the field to discuss the preparedness and feasibility of the programme within the timeframe as allocated presently. **[Dr. Tanmoy Sarkar, Sc-B, MBG]**

For the benefit of the all scientists, RAC-Chairman informed the house that next RAC meeting has been scheduled on 27th & 28th November 2017 and advised Director, CSRTI-Mysuru for making the necessary arrangements for conducting the meeting.

[Action: Sc-D, PMCE]

The meeting ended with vote of thanks.

Director & Chairman, Research Council

Annexure-I

List of participants attended the Research Council meeting held on 28th Oct 2017 at CSRTI-Mysore

#	Name	Designation	Section/Unit
1.	Prof. S .R. Niranjana,	V C, Gulbarga University	RAC chairman
2.	Sivaprasad. V. (Dr.)	Director, CSRTI, Mysore	Chairman, Research Council
3.	Satish Verma (Dr.)	Scientist-E	CSRTI, Mysore
4.	Dr. Vineet Kumar	Scientist-D	CSRTI, Mysore
5.	Munikrishnappa, H. M.	Scientist-C	CSRTI, Mysore
6.	Sreenivas, B. T. (Dr.)	Scientist-D	CSRTI, Mysore
7.	Dr. K. M. Ponnvel	Scientist-D	SBRL
8.	Dr. M. A. Shanthan Babu	Scientist-D	RSRS Ananthapur
9.	Dr. S. Rajakumar	Scientist-D	RSRS Salem
10.	Dr. M. Venkatachalapathy	Scientist-D	RSRS Kodathi
11.	Dr. R. Meenal	Scientist-D	CSRTI, Mysore
12.	Dr. S. Balasaraswathi	Scientist-D	RSRS Salem
13.	Dr. S. Mahiba Helen	Scientist-C	RSRS Salem
14.	Dr. Kusuma L.	Scientist-B	CSRTI, Mysore
15.	Dr. Ranjiji M.S.	Scientist-B	CSRTI, Mysore
16.	Dr. A. Mahima Santhi	Scientist-D	CSRTI, Mysore
17.	Mary Josepha, A.V. (Dr.)	Scientist-D	CSRTI, Mysore
18.	Joycy Rani, D.	Scientist-B	CSRTI, Mysore
19.	Geetha, G. S. (Dr.)	Scientist-C	CSRTI, Mysore
20.	Anuradha H Jingade	Scientist-D	CSRTI, Mysore
21.	Ravi Kumar R	JRF	CSRTI, Mysore
22.	P. Sowbhagya	SRF	CSRTI, Mysore
23.	Sumathy, R. (Dr.)	Information Officer	CSRTI, Mysore
24.	Kruthika, H. S.	Res Sch.	CSRTI, Mysore
25.	Kavya S. Basappa	JRF	CSRTI, Mysore
26.	Mogili, T. (Dr.)	Scientist-D	CSRTI, Mysore
27.	Dr. C. M. Kishore Kumar	Scientist-D	CSRTI, Mysore
28.	Purushotham, S. (Dr.)	Scientist-D	CSRTI, Mysore
29.	Paramwshwar C	Scientist-D	CSRTI, Mysore
30.	Somaprakash, D. S. (Dr.)	Scientist-D	CSRTI, Mysore
31.	Pratheesh Kumar, P. M. (Dr.)	Scientist-D	CSRTI, Mysore
32.	Dr . K. B. Chandrashekar	Scientist-D	CSRTI, Mysore
33.	Sri. Shivakumar Hukkeri	Scientist-D	CSRTI, Mysore
34.	M. N. Chandrashekar	Scientist-D	CSRTI, Mysore
35.	Arunakumar G. S.	Scientist-B	CSRTI, Mysore
36.	Tanmoy Sarkar (Dr.)	Scientist-B	CSRTI, Mysore
37.	Gandhi Doss, S. (Dr.)	Scientist-D	CSRTI, Mysore
38.	B. Vijaya Naidu	Scientist-D	RSRS Ananthapur
39.	Manthira Moorthy, S. (Dr.)	Scientist-D	CSRTI, Mysore
40.	Thirupathaiah, Y. (Dr.)	Scientist-B	CSRTI, Mysore
41.	Mallikarjuna, G. (Dr.)	Scientist-B	CSRTI, Mysore
42.	Satish, L. (Dr.)	Scientist-B	CSRTI, Mysore
43.	Kulkarni, S. B.	Scientist-C	CSRTI, Mysore
44.	Vinod Kumar Yadav	Scientist-C	CSRTI, Mysore
45.	K. Vedvyas	Scientist-D	REC-SU Tumakuru
46.	A. Ramesha	Scientist-B	SBRL
47.	Santha, P. C. (Dr.)	Scientist-D	CSRTI, Mysore
48.	Dr. P. V. Vyjayanthi	Scientist-B	CSRTI, Mysore
49.	Gayatri, T. (Dr.)	Scientist-B	CSRTI, Mysore
50.	Bhuvaneshwari, E. (Dr.)	Scientist-B	CSRTI, Mysore