

KERALA AGRICULTURAL UNIVERSITY

PROCEEDINGS

KAU - DoR - DBT - IHR collaborative project - "Marker Assisted breeding to develop a bacterial wilt resistant chilli paprika variety (*Capsicum annuum L*) suited for the tropical regions of India" - Implementation - Administrative and Technical Sanction - accorded orders - issued.

DIRECTORATE OF RESEARCH

No. R7/64194/13

Dated: Vellankkara, 27/08/2015

- Read: 1. Order No. BT/PR/11822/BPA/118/182014 dtd. 27-03-2015 of Department of Biotechnology
 2. Lr.No. AH(4)5521/2015 dtd. 09-07-2015 of the Associate Dean, Coll, Vellankkara
 3. Note No EP/B2/17190/15 dtd 07/08/2015 of the Comptroller

ORDER

As per the paper read 1st above, Scientist 'F', Department of Biotechnology has accorded sanction for the implementation of the DBT - IHR collaborative project "Marker Assisted breeding to develop a bacterial wilt resistant chilli paprika variety (*Capsicum annuum L*) suited for the tropical regions of India" for a period of three years at a total outlay of Rs.65,91,000/- under the Project Co-ordinatorship of Dr. Deepu Mathew, Assistant Professor, CPMB, Vellankkara. DBT has informed that the project has been approved as a collaborative project between KAU and Indian Institute of Horticultural Research, Bangalore. The details of the amount sanctioned are 1) KAU for Rs.40,74,200/- and 2) IHR for Rs.25,16,800/-

Institution wise details submitted by DBT are as follows -

Budget Head	Year I	Year II	Year III	Total (Rs.)
1. Kerala Agricultural University				
Equipment	7,75,000			7,75,000
Manpower	6,60,000	6,60,000	7,39,200	20,59,200
Overhead	50,000	30,000	20,000	1,00,000
Travel	30,000	30,000	30,000	90,000
Consumables	3,00,000	3,00,000	3,00,000	9,00,000
Contingency	50,000	50,000	50,000	1,50,000
Total (Rs.)	18,65,000	10,70,000	11,39,200	40,74,200
2. Indian Institute of Horticulture Research				
Manpower	5,10,000	5,10,000	3,56,800	13,76,800
Overhead	50,000	30,000	20,000	1,00,000
Travel	30,000	30,000	30,000	90,000
Consumables	2,00,000	2,00,000	2,00,000	6,00,000
Contingency	50,000	50,000	30,000	1,50,000
Total (Rs.)	8,40,000	8,20,000	8,56,800	25,16,800
Grand Total				65,91,000

Objectives :-

1. To develop progenies of chillies segregating for capsaicin content, bacterial wilt resistance and adaptation to warmer climates by selfing the F1 progenies of paprika cv.Kt-PI-19 and bacterial wilt resistant chilli cv. Anugraha.
2. To select the bacterial wilt resistant paprika from F2 population using SCAR markers and to develop backcrosses progenies with bacterial wilt resistance up to BC₁, using Kt-PI-19 as recurring parent.
3. To develop a non-segregating and stable variety of bacterial wilt resistant paprika through MAS among selfed progenies of BC₁ up to BC₃F₁.

As per paper read as 2nd above, the Associate Dean, College of Horticulture, Vellanikkara has requested for Administrative and Technical sanction for the DBT - IHR collaborative project entitled "Marker Assisted breeding to develop a bacterial wilt resistant chilli paprika variety (*Capsicum annum L*) suited for the tropical regions of India" for three years with a total outlay of Rs. 40,74,200/-. Also requested for the permission to appoint two Junior Research Fellows @ Rs.25,000 pm + 10% HRA for 1st and 2nd years and one SRF @ Rs.28,000 pm +10% HRA for the 3rd year, with the following qualifications :-

- a. Junior Research Fellow(Biotechnology)- M. Sc. in any branch of Agriculture/ Horticulture or M.Sc. in Biotechnology/ Plant Biotechnology, with specialization in molecular marker analysis. Desirable: 2-3 years experience in molecular marker analysis.
- b. Junior Research Fellow(Plant Breeding)- M.Sc. in Agriculture/ Horticulture with specialization in Vegetable Science/Genetics and Plant Breeding. Desirable: 2-3 years experience in crop breeding.

Further requested to declare Professor and Head, CPBMB as the DDO for the Project under the station head - 317 and requested for permission to purchase the following equipments as per the KAU store purchase rules

SI. No.	Name of the equipment	Numbers	Cost (Rs.)
1	Horizontal and Vertical electrophoresis units	each	2,00,000
2	Band eluter (for Southern hybridization)	1	1,50,000
3	Fume Hood	1	2,25,000
4	Micropipettes	2 sets	2,00,000
	Total		7,75,000

Budget allocation				
Budget Head	Year 1	Year 2	Year 3	Total
420-Equipment	7,75,000			7,75,000
121 Salaries - Manpower	6,60,000	6,60,000	7,39,200	20,59,200
Overhead	50,000	30,000	20,000	1,00,000
300-Travel	30,000	30,000	30,000	90,000
210- Consumables	3,00,000	3,00,000	3,00,000	9,00,000
840- Contingency	50,000	50,000	50,000	1,50,000
Total	18,65,000	10,70,000	11,39,200	40,74,200

Vide release order read 1st above, it has been directed to deposit the whole amount of the grant in a Bank Account earning interest and the interest so earned should be reported to DBT in the Utilization Certificate and Statement of expenditure. The interest so earned will be treated as created to the Institute /Agency and shall be adjusted towards further installment of the grant and or at the time of final statement of Accounts.

The Comptroller as per the note read 3rd has agreed the proposed Budget subject to the receipt of funds as per norms and conditions of the funding agency.

Under the circumstances the following orders are issued.

- Administrative and Technical sanctions are hereby accorded to implement the DBT- IHR collaborative project - "Marker Assisted breeding to develop a bacterial wilt resistant chilli paprika variety (*Capsicum annum L*) suited for the tropical region of India" for three years under the Project Co-ordination ship and Principal Investigatorship of Dr. Deepu Mathew, Assistant Professor, CPBMB, Vellanikkara and Principal Investigatorship of Dr. K. Madhavi Reddy, Principal Scientist, Division of Vegetable Crops, Indian Institute of Horticultural Research, Hesaraghatta Lake Post, Bangalore, Karnataka - 560 089 and Co-Principal Investigators are 1) Dr.C. Gopalakrishnan, Principal Scientist, Division of Plant Pathology , Indian Institute of Horticultural Research, Hesaraghatta Lake Post, Bangalore - 560089 , Karnataka 2) Dr. P.A Nazeem, Professor, Centre for Plant Biotechnology & Molecular Biology, Kerala Agricultural University, IT - BT Complex, KAU Post, Thrissur- 680656 Kerala at a total outlay of Rs.40,74,200/- as per the budget break up given above.
- Sanction is also accorded to engage Junior Research Fellow/ Biotechnology (M.Sc. in any branch of Agriculture/ Horticulture or M.Sc. in Biotechnology- Plant Biotechnology) with specialization in molecular marker analysis. Desirable - 2-3 years experience in molecular marker analysis and Junior Research Fellow/Plant Breeding- M.Sc. in Agriculture/ Horticulture with specialization in Vegetable Science Genetics and Plant Breeding. Desirable - 2-3 years experience in crop breeding on temporary or contract basis under the project for three years as per existing norms and conditions.

3. Sanction is accord to purchase the equipments, following the rules in vogue by a committee formed by the Associate Dean, College of Horticulture, Vellanikkara
4. Project Co-ordinator/ Principal Investigator will forward the detailed Technical Programme for experiments to be carried out at KAU and quarterly activity chart/time frame to Director of Research before undertaking experiments. The Project Co-ordinator / Principal Investigator will also strictly comply with the various stipulations laid down in the Government Order, likely timely completion of the Project, submission of periodic reports etc.
5. The Project investigator will ensure proper implementation of the Project and timely submission of report.
6. The project will automatically be terminated on completion of tenure unless and otherwise extended by the funding agency.
7. The Professor and Head, CPBMB, Vellanikkara will be the Drawing and Declaration Officer of the Project.
8. The Comptroller will take a suitable decision on starting a separate account to deposit the whole grant.
9. The Project and experiments should be got approved by the FRC.

Sd/-

Director of Research

To

1. Dr. Deepu Mathew, Assistant Professor, CPBMB, Vellanikkara
2. Dr. K. Madhavi Reddy, Principal Scientist, Division of Vegetable Crops, Indian Institute of Horticultural Research, Hessaraghatta Lake Post, Bangalore, Karnataka - 560 089
3. Dr.C. Gopalakrishnan, Principal Scientist, Division of Plant Pathology, Indian Institute of Horticultural Research, Hessaraghatta Lake Post, Bangalore - 560089 Karnataka
4. Dr. P.A Nazeem, Professor, Centre for Plant Biotechnology & Molecular Biology, Kerala Agricultural University, IT - BT Complex, KAU Post, Thrissur- 680656, Kerala
5. The Associate Dean, College of Horticulture, Vellanikkara
6. The Professor and Head, Dept. of Centre for Plant Biotechnology and Molecular Biology, College Horticulture, Vellanikkara
7. The Registrar, Kerala Agricultural University
8. The Comptroller, Kerala Agricultural University.
9. The Associate Dean, College of Horticulture, Vellanikkara

CC to- A.O - DoR / SF/Spare

// Forwarded By Order//

Section Officer

KERALA AGRICULTURAL UNIVERSITY
PROCEEDINGS

KAU – DoR – IISER – KAU collaborative research project under SERB – IMPRINT programme of Government of India Sub project entitled “Design of a Surface Enhanced Spectroscopy based Device for the Rapid Detection of Organophosphate Pesticides and Pyrethroid Insecticides in Fruits and Vegetables” implemented in PRRAL, College of Agriculture, Vellayani – Continuous sanction for the year 2019-20 – Revalidation and reappropriation of unspent balance of 2018-19 – Sanctioned – Orders issued.

DIRECTORATE OF RESEARCH

No.R7/66464/16

Dated, Vellanikkara, 04.05.2019

- Read: 1. Order No. R7/66464/16 dated 03.06.2017.
2. Order No. R7/66464/16 dated 08.05.2018.
3. Order No. EP/B2/12403/2017 dated 23.05.2018 from Finance Wing.
4. Lr. No. PRRAL/IISER-SERB /1/2018 dated 05.04.2019 from Professor and Head, PRRAL.

ORDER

As per paper (1) above, Administrative and Technical Sanction was accorded to the IISER – KAU Collaborative research project under SERB – IMPRINT programme of Government of India entitled “Design of a Surface Enhanced Spectroscopy based Device for the Rapid Detection of Organophosphate Pesticides and Pyrethroid Insecticides in Fruits and Vegetables”. The project was implemented at PRRAL, College of Agriculture, Vellayani with a total financial outlay of ₹ 94,35,360/-.

As per paper read 2nd above, continuous Administrative and Technical Sanction was accorded to the project for the year 2018-19. Financial sanction was accorded for an amount of ₹ 48.45018 lakh vide order cited ‘3’ under reference.

As per paper (4) above, Dr. Thomas George, Professor and Head (PRRAL), College of Agriculture, Vellayani has reported an unspent balance of ₹ 30.87905 lakh as on 31.03.2019 in the project and requested for revalidation and reappropriation of funds as detailed below for expenditure for the year 2019-20 under head of account : 338-31-9870.

Head of Account	Provision for 2018-19 (Lakh)	Expenditure as on 31.03.2019 (Lakh)	Unspent balance to be revalidated for 2019-20 (Lakh)	Amount to be re-appropriated for 2019-20 (Lakh)	Re-appropriation of unspent balance for 2019-20 (Lakh)
220- Institutional charge	8.1464	0	8.1464		8.1464
153- Contractual services	7.632	6.676	0.956	9.044 (+)	10
210- Research materials	24	9.82684	14.17316	9.044 (-)	5.12916
840- Other items	8.07178	0.97855	7.09323		7.09323
300- Travelling allowance	0.6	0.08974	0.51026		0.51026
Total	48.45018	17.57113	30.87905		30.87905

In the circumstances, the following orders are issued :

1. Continuous Sanction is accorded to the project “Design of a Surface Enhanced Spectroscopy based Device for the Rapid Detection of Organophosphate Pesticides and Pyrethroid Insecticides in Fruits and Vegetables” for the year 2019-20 with Dr. Thomas George, Professor, AINP on Pesticide Residues as Principal Investigator.

2. Sanction is also accorded for the revalidation and reappropriation of the unspent balance of 2018-19 as detailed overleaf, under the Head of account : 338-31-9870 for utilization in 2019-20.

Sd/-
Director of Research

To:

1. The Comptroller, Kerala Agricultural University (through email).
2. Dr. Thomas George, Professor and Principal Investigator, AINP on Pesticide Residues, College of Agriculture, Vellayani.
3. Dr. George Thomas, Professor and Principal Investigator, School of Chemistry and J.C Bose National Fellow, IISER, Trivandrum – 695 016.

Copy to: PS to VC / PA to Comptroller / S.O – EP B2 (Voucher-var - details enclosed)
/ S.O – II, DoR / SF / Spare

/ Forwarded by Order /


Section Officer

Annexure - 5 - -37-

Ammended Qualifications & Experience for ASOT

Minutes of the first meeting of IISER-KAU project on Surface Enhanced Spectroscopy based device for rapid detection of pesticide residues in fruits and vegetables

The first meeting of the collaborators of IISER-KAU project entitled " Design of a Surface Enhanced Spectroscopy based device for the rapid detection of organophosphate pesticides and pyrethroid insecticides in fruits and vegetables, sanctioned as a flagship national initiative of IMPRINT (IMPACTING RESEARCH INNOVATION AND TECHNOLOGY) INDIA under the Ministry of HRD, Govt. of India, was held at 2 pm on 25th April 2017 at the seminar hall of PRRAL, Vellayani with Dr. K. George Thomas, Principal Investigator & Professor, School of Chemistry & J.C. Bose National Fellow, IISER, Trivandrum in chair.

The following scientists attended the meeting

1. Dr. K. George Thomas, Professor, School of Chemistry, IISER, Trivandrum
2. Dr. Thomas Biju Mathew, Assoc. Director (PP) & Head, PRRAL, Vellayani
3. Dr. Anil Shaji, Associate Professor, School of Physics, IISER, Trivandrum
4. Dr. K.R. Arun, Assistant Professor, School of Mathematics, IISER, Trivandrum
5. Dr. Sheetal Dharmatti, Assistant Professor, School of Mathematics, IISER, Tvm
6. Dr. R.S. Swathi, Assistant Professor, School of Chemistry, IISE, Trivandrum
7. Dr. Thomas George, Professor & PI, AINP on Pesticide Residues, Vellayani
8. Dr. Ambili Paul, Assistant Professor, AINP on Pesticide Residues, Vellayani

Dr. Thomas Biju Mathew welcomed the delegates and started the discussion with a presentation on current methodology and results of Safe to Eat Plan Scheme and highlighted the priorities, challenges and issues in the development of a rapid test method for pesticide residue analysis in vegetables and fruits, as it was being raised by administrators of the Department of AD&FW and Food Safety wing, policy makers and people's representatives in the Government of Kerala. Moreover, it was a task assigned to the Lab by the Director of Research, KAU, based on the recommendation of 25th Meeting of ICAR Regional Committee.

Dr. K. George Thomas presented the genesis of the collaborative project as an MHRD supported Pan- IIT+IISc joint initiative to address the major science and engineering challenges that India must address and this proposal submitted as a collaborative project under IMPRINT India Initiative was selected for funding. He told that the proposal was selected on competitive peer review, in the Nano-technology hardware domain co-ordinated by IIT, Mumbai with IIT, Kanpur as the national co-ordinator and all IITs and IISERs as its constituent members. He announced that only 259 proposals (about 10%) have been selected from 2612 project proposals submitted under IMPRINT Call for proposals, after review by more than 500 reviewers, in five stages (EoI, Phase I, Phase II, Phase III and final selection), over the last six months. The projects have been approved for financial support by the Science & Engineering Research Board (SERB) under DST, Govt of India and of the total project cost of Rs. 296.55 Lakhs to be shared on a 2: 1 ratio between IISER and KAU, Rs. 40.5 Lakhs had been sanctioned as first release to IISER, Tvm vide F No. 3-18/2015-T.S-I (Vol.III) dated 21-03-2017 of MHRD, Govt. of India.

Thomas 09/05/17
Dr. THOMAS BIJU MATHIEW
Professor & Head (Co-PI)
Pesticide Residue Research &
Analytical Laboratory (PRRAL)
College of Agriculture, Vellayani
686 572

Thomas
09/05/2017

Dr. George Thomas presented the methodology employing synthesis of silica over-coated silver nano-particles, design and optimization of plasmonic platform and strength of electric field for the select OP & SP insecticides and Raman spectroscopic characterization of emission signals from pesticide molecules which are essentially the finger print of the molecules enabling rapid detection of pesticides in the matrix from vegetables /fruits. He explained the plan to couple a compact and portable hand-held Raman spectrometer with plasmonic platform, using an optical fiber module and a software to be developed at IISER, for rapid (Total 2-3 hours for 10 to 12 samples) detection of select pesticides in the sample based on a PASS/FAIL test.

His presentation was followed by detailed discussion on the modalities of implementation of the project and selection of contractual fellows in the project. Dr. Thomas Biju Mathew suggested that the process of selecting SRF and JRF should be initiated immediately after getting AS & TS and funds to the University to gain momentum of the work. After detailed discussion, the following decisions were taken:

1. The proportionate amount of the first release by SERB will be transferred to KAU observing formalities, rules and regulations of the collaborating institutes.
2. Certain modifications in the qualification and experience of manpower proposed in Table 4.5 (Page 3) of the proposal were essential and the committee approved the following changes:

Kerala Agricultural University :

1. JRF (1 No.): Rs. 25000 + HRA Rs. 1500/- (Total Rs. 26,500) for first two years and Rs. 28000/ + HRA Rs. 1500/- (Total Rs. 29,500/ month) for third year.

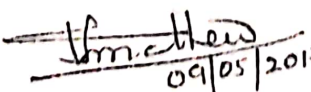
Essential Qualification: M.Sc in Agriculture / Chemistry / Bio Chemistry with minimum of 1 year experience in pesticide residue analysis of fruits and vegetables in an NABL accredited (ISO 17025) Lab.

2. SRF (1 No.): Rs. 28000 + HRA Rs. 1500/- (Total Rs. 29,500/ month) for three years

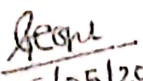
Essential Qualification: M.Sc in Agriculture / Chemistry / Bio Chemistry with a minimum of 3 year experience in pesticide residue analysis of fruits and vegetables in an NABL accredited (ISO 17025) Lab.

3. Quarterly meetings of participating scientists will be held to monitor and review the progress according to the time frame and to achieve the physical and financial targets.

The meeting came to an end by 4 pm and it was followed by the visit of the IISER TVM team in the sample processing lab and the Instrumentation labs (GC, GC-MS, GC-MS/MS, LC-MS/MS) of PRRAL, Vellayani and also in other offices of the campus.


09/05/2017
Dr. THOMAS BIJU MATHEW
Professor & Head
Pesticide Residue Research &
Analytical Laboratory (PRRAL)
College of Agriculture, Vellayani
Thiruvananthapuram - 695 522
Phone: 0471-2380520

(Co. Principal Investigator)


09/05/2017

(Principal Investigator)

KERALA AGRICULTURAL UNIVERSITY

Proceedings

KAU - DoR - ICAR-CMFRI Project entitled - Advanced Phytoplankton Cultivation Method for Hatchery feed with Special emphasis on Mussel Seed Production - Dr. M.K. Anil, Principal Scientist & Scientist incharge CMFRI, Thiruvananthapuram - Dr. Sajitha Rani.T, Associate Professor to work as Co- Investigator - Permitted - Orders issued.

DIRECTORATE OF RESEARCH

Dated, Vellanikkara, 11.07.2016

No.R2/ 63431/16

Read: Letter No.F.141/PF. Vol. II dated 14.06.2016.

ORDER

As per the paper read above, Dr. M.K. Anil, Principal Scientist & Scientist incharge, CMFRI, Thiruvananthapuram has informed that the ICAR-CMFRI collaborative project entitled "Advanced Phytoplankton Cultivation Method for Hatchery feed with special emphasis on Mussel Seed Production" technically supported by NIIST-CSIR has been supported financially by KSCSTE, under TDAP for one year with an outlay of Rs. 10 lakhs. He has also informed that while approving the project, KSCSTE has suggested to include a partner from an institution under State Government. So, he has requested to permit Dr. Sajitha Rani.T, Associate Professor, Department of Agronomy, College of Agriculture, Vellayani to associate with the project as Co-Investigator without any prejudice to her normal duties in Kerala Agricultural University.

Dr. Sajitha Rani.T, Associate Professor has verbally agreed to this proposition.

Under the circumstances following orders are issued subject to the approval/ratification of Hon'ble Vice Chancellor.

- 1) Dr. Sajitha Rani.T, Associate Professor, Department of Agronomy, College of Agriculture, Vellayani is hereby permitted to associate with the aforesaid project as Co-Investigator without any prejudice to her normal duties in Kerala Agricultural University and adhering to the terms and conditions of KSCSTE.
- 2) Dr. Sajitha Rani.T, Associate Professor, will forward a copy of terms and conditions fixed by KSCSTE to the undersigned immediately.
- 3) KAU will not bear any financial commitment in allowing Dr. Sajitha Rani, Associate Professor to perform as Co-Investigator.
- 4) The line of activities to be taken up ^{by} Dr. Sajitha Rani will be clearly demarcated and informed to the undersigned regarding the project.

Sd/-

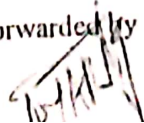
DIRECTOR OF RESEARCH

To

1. The Dean, College of Agriculture, Vellayani.
2. Dr. Sajitha Rani.T, Assistant Professor, Department of Agronomy
College of Agriculture, Vellayani.
3. Dr. M.K. Anil, Principal Scientist & Scientists i/c
CMFRI, Vizhianjan (P.O), Thiruvananthapuram - 695 521.

Copy to: PA to VC/A.O-DoR/SF/Spare

//Forwarded by Order//



6
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KERALA AGRICULTURAL UNIVERSITY
Proceedings

KAU - DoR - NARP (SR). Vellayani - Collaborative project between KAU / KVASU entitled "Hatchery waste disposal and its effective utilization" - Dr. Sudharmai Devi, Professor and PI, (SWM), College of Agriculture, Vellayani - Administrative and Technical Sanctions - Accorded - Orders issued.

DIRECTORATE OF RESEARCH

No.R2/61418/16

Dated, Vellanikkara, 17.04.2017

- Read: 1. Lr. No. CASPS/2015-16 dated 15.03.2016 of the Director, CASPS, KVASU, Mannuthy.
2. This office note to Hon'ble Vice Chancellor dated 21.03.2016.
3. Note No. EP/B2/7615/15 dated 7.04.2016 of the Comptroller, KAU.
4. Lr. No. NARP/SR(1)1269/2017 of Associate Director of Research, NARP(SR), Vellayani and CH/PWM/2016 dated 14.03.2017 of Dr. Sudharmai Devi, Professor and PI, SWM.

ORDER

As per the letter read 1st above, the Director, Centre for Advanced Studies in Poultry Science, Kerala Veterinary and Animal Sciences University, Mannuthy has informed that a project entitled "Hatchery waste disposal and its effective utilization" is being operated at CASPS and its aim is converting hatchery waste into fertilizer. Since they have learned from media that similar waste management system has been developed by scientist of Department of Soil Science and Agricultural Chemistry, College of Agriculture, Vellayani, they have approached KAU with a request to grant permission for a technical collaboration with Department of Soil Science and Agricultural Chemistry, College of Agriculture, Vellayani, KAU by incorporating the services of Dr. K.C. Manorama Thampatti, Assistant Professor, Dr. Sudharmai Devi, Professor and PI (SWM), Dr. Naveen Leno, Assistant Professor, College of Agriculture, Vellayani.

As per the reference read 2nd above, note was submitted to Hon'ble Vice Chancellor in this matter and it was agreed to and an MoU has been executed between two Universities.

As per the reference read 3rd above, financial concurrence has been obtained from the Comptroller with the condition that the entire cost of project should be met from KVASU as mentioned in the Memorandum of Understanding.

As per the reference read 4th above, ADR, NARP(SR) has informed that the Director, CASPS has transferred ₹ 2 lakhs to Comptroller, KAU (clause No. 8) and has requested Administrative and Technical Sanctions for the implementation of the collaborative project.

Under the circumstances, the following orders are issued :

1. Administrative and Technical Sanctions are hereby accorded for the implementation of KAU / KVASU collaborative project entitled "Hatchery waste disposal and its effective utilization", at College of Agriculture, Vellayani under the Principal Investigatorships of Dr. Sudharmai Devi, Professor and PI, SWM, Dept. of Agrl. Chemistry, NARP(SR), College of Agriculture, Vellayani (KAU) with Mr. Naveen Leno, Assistant Professor (KAU) and Dr. S. Harikrishnan, Assistant Professor (KVASU) as Associates for a period of three years from the date of signing of the agreement.
2. The Comptroller will allot a separate Head of account for the collaborative project and release the amount at the disposal of ADR (NARP - SR) who is the Drawing and Disbursing Officer.

3. The PI should ensure proper implementation of the project as envisaged in the Memorandum Understanding and should maintain separate documents and stock register and also time submission of annual reports, final report, Asset Transfer Certificate, Audited Utilization Certificate etc.
4. The project will be automatically terminated after the tenure, unless it is reviewed by the committee consisting of representatives from KAU and KVASU.

The order is issued with the concurrence of the finance wing.

(By Order of Hon'ble Vice Chancellor)

Sd/-

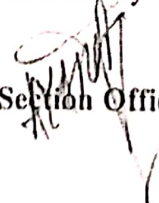
DIRECTOR OF RESEARCH

To :

1. The Registrar, KAU.
2. The Registrar, KVASU.
3. The Comptroller, KAU.
4. The Director, Centre for Advanced Studies in Poultry Science, KVASU, Mannuthy.
5. Dr. Sudharmai Devi, Professor and PI, SWM, Dept. of Agrl. Chemistry, NARP(SR), College of Agriculture, Vellayani
6. Mr. Naveen Leno, Assistant Professor, NARP(SR), College of Agriculture, Vellayani.
7. Dr. S. Harikrishnan, Assistant Professor, KVASU, Mannuthy.

Copy to: Dy. Comptroller (BG) / ADR, NARP(SR) / A.O – DoR / S.O. I – DoR / SF / Spare

/ Forwarded by Order /


Section Officer

Est.
10/4/17

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Joint Intellectual Property Management Plan in Collaborative Research Projects (As per ICAR Guidelines)

As it is proposed by KVASU that a collaborative project be taken up between KAU & KVASU for disposal and utilization of hatchery waste, this Memorandum Of Understanding is entered into on the 15th of December 2016 between Kerala Agricultural University & Kerala Veterinary And Animal Sciences University as illustrated in the ICAR Guidelines Annexure 3.

1. Project Title : Hatchery waste disposal and its effective utilization

Collaborating Institutions: KERALA AGRICULTURAL UNIVERSITY AND KERALA VETERINARY AND ANIMAL SCIENCES UNIVERSITY

Investigators : 1. Dr. C.R.Sudharmaidevi and 2. Mr. Naveen Leno, KAU 3. Dr. S. Harikrishnan, KVASU

2. Objectives

These guidelines define the modalities of protection, maintenance, and commercial utilization of joint IP, and allocating the rights, interests and royalties among the above institutions while carrying out the joint research project.

REGISTRAR
Kerala Agricultural University
KAU

मि. 27963009 100
Registrar KVASU

4 FEB

Dear

I refer to our Memorandum of Understanding (MOU) first signed on 30 July 2009 by Kerala Agricultural University (KAU) and the University of Western Australia (UWA) and extended for a further five years by KAU on 26 November 2014 and UWA on 22 January 2015

The MOU envisaged, among other things, joint research activities and that the specific areas and details of cooperation within the framework of the MOU, should be discussed and agreed upon in writing by the appropriate authority of each university, prior to the initiation of any particular programme or activity.

The MOU acknowledged that "in the absence of any specific agreement to the contrary that all expenses of salary, travel, living and allied costs will be determined at the discretion and be the responsibility of the visitor's home university".

This letter has the dual purpose of proposing a joint research activity and settling the details of the budget of this activity.

The budgeted amount will be paid by UWA to KAU on receipt of an invoice from KAU.

Annexed to this letter is a proposed first stage of a collaborative research proposal and a budget to support this first stage, which will be met by UWA. Further stages will be discussed at the conclusion of the first study visit to Kerala, which is proposed for 23-28 April 2018.

At The University of Western Australia the administration of this agreement is vested in the Pro-Vice Chancellor (International) and at Kerala Agricultural University in the hands of the Director (Research).

Signed on behalf of

The University of Western Australia

Professor

Pro-Vice-Chancellor (International)

Date:

Signed on behalf of

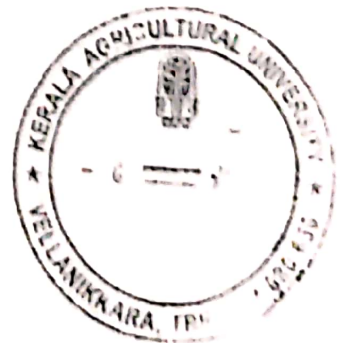
Kerala Agricultural University

Prof (Dr)

Registrar

Date:

DR. S. LAKSHMI KUMARI
REGISTRAR
Kerala Agricultural University
KAU P.O. Vellankkara - 680 656



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KERALA AGRICULTURAL UNIVERSITY

Proceedings

KAU – DoR – Collaborative project between University of Western Australia and Kerala Agricultural University concerning food security and the governance of local knowledge in India and Indonesia – Administrative and Technical Sanctions accorded subject to availability of funds – Order issued.

DIRECTORATE OF RESEARCH

No.R2/63955/17

Dated, Vellanikkara, 09/04/2018

- Read: 1) E-mail dated 15/07/17 of Dr. Kadambot Siddique, Hackett Professor of Agriculture Chair and Director, University of Western Australia
- 2) Note to Hon'ble Vice Chancellor, Kerala Agricultural University dated 22/07/17
- 3) Letter No. nil dated 20/02/18 and 27/03/18 of Dr. Jayasree Krishnankutty, Professor and Principal Researcher, College of Horticulture, Vellanikkara.
- 4) This office letter of even no. dated 03/03/13 and 20/03/18

ORDER

As per the letter read 1st above Dr. Kadambot Siddique, Hackett Professor of Agriculture Chair and Director informed that University of Western Australia is engaged in a research project concerning food security and the governance of local knowledge in India and Indonesia. The project aims to examine local agricultural knowledge of the small holders or marginal farmers related to plant breeding and they also intend to identify the ways in which the regulatory structures in the country help or hinder this process. The proposed study part of Australian Research Council (ARC) Discovery Project (DPDP170100747) will analyse local agricultural knowledge related to plant breeding and the selection of seeds and its interaction with national and regional laws and policies regulating food security and IP in Kerala and India. It seeks to disentangle local agricultural knowledge and innovation from the complex traditional/indigenous knowledge. This study posits local knowledge of plant varieties and plant breeding process as active and creative using it as a departure point for a 'bottom-up' approach to the regulation of agricultural innovation.

The Project is one between collaborators from University of Western Australia, University of New Castle, Australia, Monash University and the School of African and Oriented Studies (SoAS), University of London. They intend to make partnership with Kerala Agricultural University for conducting some of the researches, particularly in interviewing farmers, farmer associations and relevant government bodies and NGOs. They want Kerala Agricultural University to assist them in identifying suitable communities of traditional farmers in Kerala for their survey.

They need a Principal Researcher from the department of Agricultural Extension to secure relevant government approvals and for conducting interviews and field researches. They also need the service of a research associate to assist the Principal Researcher in conducting field research. The project is funded by Australian Research Council (ARC) and funding has been secured for three years.

Dr. Jayasree Krishnankutty, Professor (Agricultural Extension) has been identified as the principal researcher of the project. She has requested for Administrative and Technical Sanctions as per the budget shown below.

Sl. No.	Item	Amount (Rs.)
1	Research Assistant @ Rs. 22000/- per month for 12 months	2,64,000.00
2	Computer Assistant and supporting small equipments	25,000.00
3	POL	1,00,000.00
4	TA	50,000.00
5	Conducting of Farmer interfaces/seminars	1,50,000.00
6	Documentation	30,000.00
7	Stationery	20,000.00
8	Unforeseen Expenses	50,000.00
	Total	6,89,000.00
9	Institutional Expenses @ 10%	68,900.00
	Grand Total	7,57,900.00

The Hon'ble Vice Chancellor has agreed to collaborate with University of Western Australia in their project as per the existing norms and regulations. Draft MoU has been prepared and forwarded to department of Agricultural Research and Education (DARE), New Delhi for vetting.

Under the circumstances the following orders are issued

- 1) Administrative and Technical Sanctions are here by accorded subject to availability of funds for the implementation of collaborative project between Kerala Agricultural University and University of Western Australia concerning food security and the governance of local knowledge in India and Indonesia.
- 2) The project is funded by Australian Research Council (ARC) and the funding has been secured for three years. They will release funds if an invoice signed by Registrar, Kerala Agricultural University in support of the project forwarded to professor Dr. Kadambot Siddique, Hackett Professor of Agricultural Chair and Director, The University of Western Australia Institute of Agriculture, Western Australia.
- 3) The split up budget in Kerala Agricultural University subhead is as shown below

Sl.No.	KAU Subhead	Item	Amount (Rs.)
1	121	Contractual Service	2,64,000.00
2	214	Operational Cost	4,25,000.00
3	220	Institutional Expenses @ 10%	68,900.00
		Grand Total	7,57,900.00

- 4) The Comptroller will allot a separate Head of Account and place the funds at the disposal of Principal Researcher
- 5) The Principal Researcher will ensure proper implementation of the project and timely submission of periodical reports, Audited Utilization Certificate and Final Report etc.

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- 6) The project will automatically be terminated on the expiry of sanctioned tenure unless extended by funding agency.

Sd/-
DIRECTOR OF RESEARCH

To

- 1) Dr. Kadambot Siddique, Hackett Professor of Agricultural Chair and Director, The University of Western Australia Institute of Agriculture, Western Australia.
 - 2) Dr. Jayasree Krishnankutty, Professor (Agricultural Extension) and Principal Researcher, College of Horticulture, Vellanikkara.
 - 3) The Comptroller, Kerala Agricultural University.
- Copy to : P.S to V.C/P.A to Registrar/Deputy Comptroller (B&P)/A.O DoR/ORMIS/SF/Spare

//Forwarded by Order//


Section Officer



o/c