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FILE NO. CRG/2018/001182  
**SCIENCE & ENGINEERING RESEARCH BOARD(SERB)**  
(A statutory body of the Department of Science & Technology, Government of India)

5 & 5A, Lower Ground Floor  
Vasant Square Mall  
Plot No. A, Community Centre  
Sector-B, Pocket-5, Vasant Kunj  
New Delhi-110070

Dated 20-May-2019

**ORDER**

Subject: Financial Sanction of the research project titled "Role of UPProsome in differential regulation of IRE1 $\alpha$  associated ribonuclease activities" under the guidance of Prof. Khalid Majid Fazili, Biotechnology, Kashmir University, Hazratbal rd, hazaratbal, srinagar, jk. Srinagar, Jammu and Kashmir-190006 - Release of 1st grant

Sanction of Science and Engineering Research Board (SERB) is hereby accorded to the above mentioned project at a total cost of Rs. 4488000/- (Rs. Forty Four Lakh Eighty Eight Thousand Only) with break-up of Rs. 400000/- under Capital (Non-recurring) head and Rs. 4088000/- under General (Recurring) head for a duration of 36 months. The items of expenditure for which the total allocation of Rs. 4488000/- has been approved are given below

S No	Head	Total (in Rs.)
A	<b>Non-recurring</b>	
1	Equipment -> Minispin -> Thermal Cyclor	400000
A	<b>Total (Non-Recurring)</b>	
B	<b>Recurring Items</b>	400000
1	Recurring - I : (Manpower) Recurring - II : ( Consumables, Travel, Contingencies) Recurring - III : Scientific Social Responsibility	360000
2	Recurring - IV (Overhead Charges)	3300000
B	<b>Total (Recurring)</b>	20000
C	<b>Total cost of the project (A' + B')</b>	4088000
		4488000

2. Sanction of the SERB is also accorded to the payment of Rs. 400000/- (Rupees Four Lakh only) under 'Grants for creation of capital assets' and Rs. 1376000/- (Rupees Thirteen Lakh Seventy Six Thousand only) under 'Grants-in-aid General' to Registrar, Kashmir University, Hazratbal Rd, Hazaratbal, Srinagar, JK being the first installment of the grant for the year 2019-2020 for implementation of the said research project

3. The expenditure involved is debit to Fund for Science & Engineering Research (FSER) This release is being made under Core Research Grant. (PAC Health Sciences)

4. The Sanction has been issued to Kashmir University, Hazratbal Rd, Hazaratbal, Srinagar, JK with the approval of the competent authority under delegated powers on 15 May, 2019 and vide Diary No. SERB/F/636/2019-2020 dated 17 May, 2019

5. Sanction of the grant is subject to the conditions as detailed in Terms & Conditions available at website ([www.serb.gov.in](http://www.serb.gov.in))

6. Overhead expenses are meant for the host Institute towards the cost for providing infrastructural facilities and general administrative support etc. including benefits to the staff employed in the project

7. While providing operational flexibility among various subheads under head Recurring-II, it should be ensured that not more than Rs. 1.5 lakh each should be spent for travel and contingency.

8. As per rule 211 of GFR, the accounts of project shall be open to inspection by sanctioning authority/audit whenever the institute is called upon to do so.

9. The sanctioned equipment would be procured as per GFR and its disposal of the same would be done with prior approval of SERB.

10. The release amount of Rs. 1776000/- (Rupees Seventeen Lakh Seventy Six Thousand only) will be drawn by the Under Secretary of the SERB and will be disbursed by means of RTGS transaction as per their Bank details given below

Account Name	Dean Research, University of Kashmir
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## Annexure-III

The list of equipment and details of budget under NR head is as follows:

S.No.	Name of Equipment	No. of Unit	Amount (including GST)
1	High Speed Centrifuge with multiple rotors	01	12.75000
2	Thermo Cycler	01	2.70000
3	UV -Vis Spectrophotometer	01	5.97000
4	Western Blotting Apparatus	02	2.73000
5	Gel Documentation System	01	4.95000
7	Spectrofluorimeter	01	17.00000
8	Minor Equipments (Micro pipette, pH Meter, Balance, Incubator) (1 set each)	01	2.25000
		<b>Total:</b>	<b>48.35000</b>

(Rupees forty eight lakh and thirty five thousand only)



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List of equipments as per priority for PG teaching program.

#	Item	Estimated cost (in lacks)
1	High speed centrifuge with multiple rotors	15.0
2	Thermo cycler (PCR machine)	2.80
3	UV-Visible spectrophotometer	6.00
4	Western blotting apparatus ( 2 sets)	2.00
5	Gel documentation System.	4.95
6	Spectrofluorimeter	17.00
7	Minor equipments (Micro pipettes, pH meter, Balance, Incubator)	2.25
	<b>Total</b>	<b>50.00</b>

**Justification:**

**1. High speed centrifuge:**

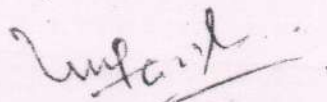
A high speed centrifuge with rpm >20,000 will be required for experiments demanding sub-cellular fractionation. The students will be fractionating cells into cytosolic, nuclear soluble and chromatin fractions to learn about differential sub-cellular distribution of different proteins. In addition it will also be used for demonstrating simple sedimentation based experiments.

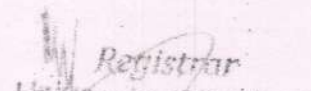
**2. Thermo cycler (PCR machine)**

The PCR machine is an essential requirement in the Molecular Biology related experiments that include cloning and expression of various genes.

**3. UV-Visible spectrophotometer:**

The UV-Visible spectrophotometer will be required for the estimation of proteins, DNA and RNA in differ blotting samples. In addition, it will also be used by students to monitor the optical density of bacterial/yeast cultures. The spectrophotometer which was available at the department has become outdated and defunct, and lack of a reliable UV-Visible spectrophotometer is causing inconvenience to the students. Only one spectrophotometer is available and that has also recently become malfunctioned.

  
Head  
Bio-Technology  
University of Kashmir

  
Registrar  
University of Kashmir  
Bhatnagar, Srinagar

**4. Western blotting apparatus:**

SDS-PAGE-Western Blotting apparatus will be used for detection and estimation of relative levels of different proteins.

Western blotting apparatus- Two are available but don't suffice the requirements.

**5. Gel documentation system**

Gel documentation system would be required to analysis of protein and nucleic acids run of SDS-PAGE/western blotting and agarose gels, respectively. This will enable the students to learn techniques involved in identification and quantification of protein levels, which are indispensable for any person getting trained in biotechnology.

We have one high end Chemiluniscence imaging system but one robust gel documentation system is required for training the PG students.

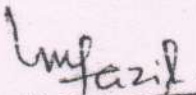
**6. Spectrofluorimeter**


A fluorescence spectrophotometer is required for experiments during the second semester related to protein quantification, ligand interaction and enzyme assays and kinetic measurements.

None is available.

**7. Minor equipment**

Minor equipments like micropipettes, pH meter, Incubators and electronic balance are required for routine lab work during all the semesters of the program. Minor equipments need to be replaced due to usual wear and tear.

  
Khalid Majid Fazili  
Prof & Head  
Course coordinator  
Deptt. of Biotechnology  
University of Kashmir

  
REGISTRAR  
Registrar  
University of Kashmir  
Hazratbal, Srinagar.