No. R.12012/02/2023-HR/E-Office: 8225181 Indian Council of Medical Research **V. Ramalingaswami Bhawan,** P.O. Box No.4911 Ansari Nagar, New Delhi-110029

Dated:08/06/2023

## **ORDER**

Subject: HRD Scheme of the Department of Health Research - "Short Term Fellow in Indian Institute" on "Elucidating of the role of mTOR pathway in regulating cell surface expression of Neuropilin1" under PI: Dr. Mushtaq Ahmad Beigh.

With the approval of the Competent Authority, sanction is accorded for funding of the training on "Elucidating of the role of mTOR pathway in regulating cell surface expression of Neuropilin1" in respect of Dr. Mushtaq Ahmad Beigh, Asst. Prof., Department of Nanotechnology, University of Kashmir, Srinagar, Jammu & Kashmir under Short Term Fellowship training in Indian Institute - HRD Scheme of the Department of Health Research on the terms and conditions detailed here under:-

## 2. AIMS & Objective of the proposed training:

Neuropilin 1 (NRP1) is a developmentally conserved cell surface receptor that functionally acts to bind several ligands like class 3 Semaphorins and several members of the VEGF family to engage in several signaling pathways that control cell migration and motility NRP1 is overexpressed in the majority of cancers and serves as a cellular metastatic marker. As part of the training, we would like to understand whether mTOR complex or mTOR kinase per se is involved in changing the overall expression of NRP1 or the surface display of the NRP1 receptor. To this end, we would like to use mTOR complex inhibitor Rapamycin or mTOR kinase inhibitor Torin in NRP1 expressing model breast cancer cells like MCF-7. Total NRP1 protein expression would be checked by quantitative western blot analysis. We would be employing laser confocal microscopy and flow cytometry to analyze the cell surface expression of NRP1 after treatment of cells with Rapamycin /Torin. Further MCF-7 cells after incubation with FITC-conjugated CendR peptide in the presence oabsence of rapamycin/Torin, confocal microscopy would be used to analyze CendR peptide internalization by monitoring the FITC signal inside the cells.

## 3. Name and Address of the mentor:-

Dr. Ramray Bhat, MBBS, PhD
Wellcome Trust-DBT India Alliance Fellow
Associate Professor, Molecular Reproduction, Development and
Genetics
Associate Faculty, BioSystems Science and Engineering,
Indian Institute of Science,
Bangalore 560012 India .

- 4. The duration of training program is for 1 **Month** at **Molecular** Reproduction, Development and Genetics, BioSystems Science and Engineering, Indian Institute of Science, Bangalore 560012.
- 5. The budget for the training program is of **Rs.40,000/-**(Stipend of Rs.40,000) only.
- 6. The terms and conditions of fellowship are as follows:
  - a. The period of stay in host Institute atMolecular Reproduction, Development and Genetics, BioSystems Science and Engineering, Indian Institute of Science, Bangalore 560012 should not exceed beyond the period mentioned above excluding actual travel time for the fellowship.
  - b. A Consolidated stipend of Rs.40,000/- per month will be paid for period fellowship in host Institute.
  - c. The maximum ceiling of the contingent expenses including taxi charges to join & return from the host Institute, is Rs.20,000/- for entire period of fellowship. The expenditure will be reimbursed to fellow after production of the original vouchers.
  - d. The payment of salary and other benefits such as leave, medical gratuity, GPF, pension as applicable to the Fellow will be dealt by his parent Institute as per rules and regulations. No liability on any of these accounts will be borne by the Department of Health Research.
  - e. The Fellow will not be allowed to engage in any other gainful employment during the tenure of fellowship period.
  - f. The Fellow should submit the copy of relieving letter from parent Institute and date of joining of the host Institute duly forwarded by the mentor to the DHR. Likewise the reliving report from the host Institute and joining report of the parent Institute, after completion of the training, should be submitted to the DHR.
  - g. The Fellow should submit a detailed scientific report (in duplicate) in the prescribed format indicating the outcome and follow up actions of visit and the claim sheet etc. within 15 days on return to the DHR (copies of formats will be sent by email). This should be submitted within 2-4 weeks of his completion of the fellowship.
  - h. Mentor will also submit a **Confidential Report** of performance in the prescribed format directly to the DHR.
  - i. The Fellow will submit a detailed research proposal based on the concept proposal stated in the application to the DHR in prescribed format available at the DHR Web-site, within six months of the completion of the training/fellowship. Non- submission of project proposal shall be treated as non-completion of training/fellowship and it will be dealt with accordingly.
  - j. In the event of cancellation/ revision of any sector of journey, after issue of the ticket, the penalty of cancellation charges/ difference of fare, if any, will be met by the Fellow.
  - k. The Fellow is required to submit his contact address (work place and

residential along with telephone/ fax no.) to Programme manager (HRD scheme), immediately by post and e-mail at hrd-dhr@nic.in for future reference.

Signed by
Ved Prakash Singh
Date: 08-06-2023 16:17:48
(Dr. V.P. Singh)

(Dr. V.P. Singh)
DDG(ICMR)& Scientist-E
Department of Health Research
Tel No.23736088

## **Copy to:**

- 1. **Dr. Mushtaq Ahmad Beigh**, Asst. Prof., Department of Nanotechnology, University of Kashmir, Srinagar, Jammu & Kashmir.
- 2. Dr. Ramray Bhat, Wellcome Trust-DBT India Alliance Fellow, Molecular Reproduction, Development and Genetics, BioSystems Science and Engineering, Indian Institute of Science, Bangalore 560012.
- 3. The Secretary, DHR & DG, ICMR For information please.



डॉ. एस. चंद्रशेखर Dr. S. Chandrasekhar





पिटाटो - पटिन - पडि? २२ सिनव भारत सरकार विज्ञान एवं प्रौद्योगिकी मंत्रालय विज्ञान एवं प्रौद्योगिकी विभाग Secretary Government Of India Ministry of Science and Technology Department of Science and Technology

D.O. No.DST/KIRAN/GE-1/2019-Part(5)/AI/1

03rd July, 2023

Letter of Recognition under the DST-GATI Program- reg.

Dear Prof. Khan,

As you are aware, DST had conceptualized the Gender Advancement for Transforming Institutions (GATI) program in the year 2019, which was launched by the Hon'ble President of India on the occasion of National Science Day in the year 2020. It has an objective of acceleration in participation of women in STEMM. The Women in Science and Engineering (WISE) - KIRAN Division, DST has been playing an instrumental role in implementing the program.

I am happy to share that India is among seven countries to make such kind of framework which is inspired by Athena SWAN UK, but developed in Indian context for Indian institutions to achieve Gender Equality in Science. DST has worked in partnership with British Council and a mechanism to evaluate Science and Technology institutions on the basis of Gender Equality in STEMM has been worked out. The GATI Achiever recognition developed during the pilot program is to appreciate efforts and transformative contributions made by institution in the field of women in science and technology. Your institution's exemplary work showcased its commitment to driving next step by making action plans to ensure enhanced participation of women scientists at all levels.

I am delighted to inform you that University of Kashmir has been recognized as a "GATI Achiever" by the Department of Science and Technology (DST), Govt. of India, among the identified pilot institutions. This is prestigious and the first of its kind of recognition of institutions for their remarkable work done for women in STEMM through GATI program. The recognition would be valid for next five years from the date of this letter.

We acknowledge the tireless efforts made by your GATI Self-Assessment Team and Dr. Rabia Hamid, nodal scientist at University of Kashmir, who were consistent in their work under GATI. We look forward of effective implementation of action plans by your institute in future. With this, your institute has become a role model for other institutions who are willing to participate in this initiative.

We wish you continued success in all your future endeavors. We all are committed to fostering collaboration and driving impactful change together for promoting more participation of women and girls in science.

Once again, we convey our heartfelt congratulations on this well-deserved recognition.

With best wishes,

Yours sincerely.

(S. Chandrasekhar)

Prof. Nilofer Khan Vice Chancellor University of Kashmir Srinagar-190006, Jammu & Kashmir.