University of Hyderabad

Department of Biochemistry
School of Life Sciences

No.UH/SLS/DOB/SK/2025/01 Date: **5th March 2025**

Applications are invited from eligible candidates (Indian Nationals only) on a plain paper or in the attached format *(Form B)* for the following position in the ICMR funded research project "***Targeting CRL4Cdt2 complex as a Therapeutic prospect in Breast Cancers by Proteomics-based identification of its Regulators and Substrates.***"

(1)	Name of the Post	**Project Technical Support III**
(2)	Number of positions	One (1)
(3)	Fellowship/Honorarium/ Stipend in Rs.	Rs **28000** (*Consolidated excluding HRA*) **per month**
(4)	HRA if applicable	**30 % per month (+Rs 8400)**
(5)	Tenure of the Post	1 year (can be extended for further period subject to review)
(6)	Essential Qualifications	Masters in any stream of life sciences with minimum 60% marks. OR Bachelors plus 3 years lab research experience.
(7)	Desirable Qualifications	Experience in molecular biology and mammalian cell culture.
(8)	Experience	0 - 2 years
(9)	Age Limit	Less than 35 years

(1) Applicants should note that the appointment to be made is purely temporary and they have no right for claiming for any regular appointment in the University.
(2) Applicants selected for the post should be committed towards achieving the projects' goal. Insufficient progress/commitment can lead to termination of the position at any time with a one month notice period.
(3) No TA/DA will be paid for attending the written test / skill test or at the time of joining.
(4) Self-Attested copies of all certificates in support of the information furnished in the application should be enclosed.
(5) Last date for receipt of filled-in applications is: **25th March 2025**
(6) Hard-copy of duly filled application along with essential documents should be sent to the following person by in-person/registered post/speed post/courier.

Dr Shashi Kiran
Room no. – F10
School of Life Sciences, University of Hyderabad
Gachibowli, Pin Code: 500 046

(6) The University of Hyderabad will not be responsible for any postal delay
(7) Only the candidates selected for an interview will be intimated through email on/before **25th March** 2025 along with information such as interview date, time and mode (on-line/off-line).

S.V.

अध्यक्ष / Head
जीवरसायनविभाग / Department of Biochemistry
भौतिकान संस्थान / School of Life Sciences
हैदराबाद विश्वविद्यालय / University of Hyderabad
हैदराबाद-500046. भारत

Name & Signature of the Principal Investigator

Dr. SHASHI KIRAN
Assistant Professor
Department of Biochemistry
School of Life Sciences
University of Hyderabad
Hyderabad-500 046. (T.S.)

To
1. Web Master, UoH - with a request to place in the University website
2. All Notice Boards in the University of Hyderabad
3. All reputed research institutions in related area of the Project–for display on notice boards

TITLE: Targeting $CRL4^{Cdt2}$ complex as a Therapeutic prospect in Triple Negative Breast Cancers by Proteomics-based identification of its Regulators and Substrates.

SUMMARY

Preface: $CRL4^{Cdt2}$ is an E3 ubiquitin ligase composed of the Cullin4 (4A/4B) scaffold, RBX1 ring, DDB1 adaptor and Cdt2, that recognizes $CRL4^{Cdt2}$specific substrates for ubiquitination. It is unique among ubiquitin ligases in linking DNA replication to cell cycle and maintenance of genome integrity [1].

I. **Rationale**: **(1)** Breast tumors, especially Triple Negative Breast Cancers (TNBCs) are oncogenically addicted to very high $CRL4^{CDT2}$ expression and inhibiting $CRL4^{Cdt2}$ blocks proliferation of such tumors [2–5]. **(2)** Mechanism of stabilization of the $CRL4^{CDT2}$ complex in cancers is not known and is an attractive target to inhibit TNBCs . **(3)** Cancer specific regulators and substrates of $CRL4^{CDT2}$ in hypoxia, DNA damage and cell cycle can reveal therapeutic targets and clarify oncogenic mechanisms **(4)** Specific inhibitors for $CRL4^{Cdt2}$ inhibition are required to replace Pevonedistat, general cullin inhibitor [6–8].

II. **Objectives:** (**O1**) Endogenous tagging of the Cdt2 protein in immortalized, MCF 10A and TNBC cell line, MDA-MB-231, with a Cdt2 tagging protocol established in MCF-7. (**O2**) Isolate endogenous $CRL4^{Cdt2}$ complex from these cells in hypoxia, DNA damage and cell cycle. (**O3**) Validation and characterization of interactors for therapeutic targeting of TNBCs (**O4**) Test the role of $CRL4^{Cdt2}$ as an independent oncogene or not in TNBCs.

III. **Methods:** Genetic tagging of Cdt2 by CRISPR-HDRT followed by immunoprecipitation of the interacting protein complex in cell cycle and DNA damage and their identification by LC/MS.

IV. **Novelty:** (i) Despite of being an oncogenic dependence in breast cancers[9–11], the interaction repertoire of $CRL4^{Cdt2}$ is being explored for the first time. (ii) The intrinsic cellular stoichiometry of $CRL4^{CDT2}$ complex is maintained by genetic tagging thereby ensuring the isolation of genuine interaction repertoire.

REFERENCES:

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You may send the PDF of completed application along with required documents to following email address:

shashi_sls@uohyd.ac.in

Please don’t use bots for submitting the application. They will be automatically deleted.

Form – B

Application for Position in the Project

UNIVERSITY OF HYDERABAD P.O. Central University Campus, Gachibowli Hyderabad 500 046, Telangana, INDIA		
Post Applied for: **Notification No & Date:**	…… ……	Paste Recent Photograph

Personal Details:			Proof enclosed Sl. No.
1	**Full Name (as in SSC certificate)**		
2	**Gender (Male / Female)**		
3	**Date of Birth & Age** ***(as on last date of the Notification)***		
4	**Father's Name**		
5	**Nationality**		
6	**Community (General / OBC / SC / ST / PWD)**		
7	**Married / Unmarried**		

Candidate's Name & Address for correspondence :		
	Mailing address	**Permanent address**
Name Address with PIN Code		
Email:		
Phone No.		
Mobile No.		
Fax No.		

Present position held, if any:			
Name of the University / Institution	**Name of the Position and Salary Details**	**Nature of Job**	**Proof encl. no.**

Educational Qualifications							
Name of the Examination passed	**Name of the Board / University**	**Month & Year passed**	**Division /Class**	**% of Marks**	**CGPA (*if grading is applicable)***	**Subjects studied**	**Proof Encl. No.**
(a)	**(b)**	**(c)**	**(d)**	**(e)**	**(f)**	**(g)**	**(h)**

Experience (Including present position / employment)						
Designation & scale of pay	**Name & Address of the Employer**	**Period of Experience**			**Nature of work**	**Proof encl. Sl.no.**
		From date	**To date**	**No. of years/ Months/days**		
(a)	**(b)**	**(c)**	**(d)**	**(e)**	**(f)**	**(g)**

Names & complete postal addresses of 2 referees :	
Email:	**Email:**
Phone (Landline) with STD Code :	**Phone (Landline) with STD Code :**
Mobile Ph:	**Mobile Ph:**

Declaration: I hereby declare that all the entries made by me in this application are true to the best of my knowledge and belief. If anything is found false at any stage, my candidature may be canceled without assigning any reason thereof.

Date: _____ **Signature of the applicant**