



University of Madras

(Established under the Act of incorporation XXVII of 1857 –
Madras University Act 1923) (State University)
Centenary Building, Chepauk Campus, Chennai 600 005

Applications are invited for the Temporary Positions of Post Doctoral Fellow/ Project Fellow
To work under Research, Innovation and Quality Improvement – RUSA 2.0

Name and Number of Position:

Post Doctoral Fellow : 6 Nos

Project Fellow : 29 Nos

DEVELOPMENT OF DRUGS FROM NATURAL RESOURCES FOR BIOMEDICAL APPLICATIONS

THEME -1

Sl. No	Post Code	Title / Research Area	Qualification	Desirable Qualification	No. of Post
POST DOCTORAL FELLOW					
1.	T1 P1 PDF1	Identification of novel anticandidal compounds from plant and microbial sources	Ph.D., Botany / Micro Biology / Life Science	Medicinal Plants /Microbiological Research experience	1
2.	T1 P2 PDF2	Endocytosis and vesicular trafficking mechanism in health and diseases: Impact of natural compounds	PhD., Biochemistry / Biotechnology/ Life Science	Experience in the field of Biochemistry/ Molecular Biology/ Cancer Biology / Life Science with good publications	1
3.	T1 P3 PDF3	Structural and functional characterization of virulence factors of <i>Helicobacter pylori</i>	PhD., in Structural biology and related field/ Bioinformatics	Experience in cloning, protein expression and purification, Structure determination of protein molecules	1

Sl. No	Post Code	Title	Qualification	Desirable Qualification	No. of Post
4.	T1 P4 PDF4	Development of Molecular marker and therapeutic intervention for metabolic disorders	Ph.D in Biomedical, Biological Sciences with good publication record	The applicant must have cleared the CSIR or UGC NET / GATE and have availed Research Fellowship for conducting Ph.D research work will be given preference.	1
5.	T1 P5 PDF5	Efficacy of ethanolic extract of <i>Mucuna pruriens</i> in pre-clinical animal models of ischemia induced cellular degeneration and identification of the probable bioactive components and molecular mechanisms	First Class Postgraduate degree in Anatomy/ Neuroscience (Faculty of Medicine) Ph.D. in Anatomy / Neuroscience	Work experience in Animal experiments especially animal surgery to create spinal cord injury / cerebrovascular occlusive stroke / myocardial infarction modeling / testicular torsion modeling, functional scoring based on animal behavior etc is mandatory. Experience in herbal science research involving extraction and concentrating the products and characterizing the components using GCMS/HPLC highly desirable	1
6.	T1 P6 PDF6	Modulatory effect of <i>Celastrus paniculatus</i> on neuroimmuno endocrine network in neurodegenerative diseases	M.Sc., Physiology with 60% marks and Ph.D., Physiology	A good academic record working experience in animal handling, RAT stereotaxic and molecular biology techniques, Tissue culture techniques will be preferred	1
PROJECT FELLOW					
7.	T1 P1 PF1	Identification novel anticandidal compounds from plant and microbial sources	M. Sc., degree in Botany/ Microbiology/ Biotechnology/Life Science with first class	Medicinal Plants/ Microbiological techniques / Proteomic and Genomic and Molecular Biology Techniques experience	6
8.	T1 P2 PF1	Molecular Cardiology	M. Sc., Biochemistry / Biotechnology/ Life Science with first class	Two years of research experience with cell culture and Molecular Biology	1

Sl. No	Post Code	Title	Qualification	Desirable Qualification	No. of Post
9.	T1 P2 PF2	Neuroscience	M. Sc., Biochemistry / Biotechnology/ Life Science with first class	One to two years of research experience; Expertise in cell culture maintenance and Molecular techniques	1
10.	T1 P2 PF3	Cell death process in Cancer	M. Sc., Biochemistry / Biotechnology/ Life Science with first class	Research experience in Cancer Biology. Experience in cell culture and Molecular techniques	1
11.	T1 P2 PF4	Cell signaling in Cancer	M. Sc., Biochemistry / Biotechnology/ Life Science with first class	Research experience in the field of Cancer Biology will be given preference	1
12.	T1 P3 PF1	Structural and functional characterization of putative moonlighting proteins Glyceraldehyde-3-phosphate dehydrogenase and Enolase from <i>Helicobacter pylori</i>	First class in M.Sc., Biophysics/ Biotechnology/ Bioinformatics	Experience in cloning, protein expression and purification	1
13.	T1 P3 PF2	Structural Analysis of a neglected but important drug target pantothenate kinase iso form III to tackle human pathogen <i>Helicobacter pylori</i>	M.Sc., or M.S., By Research or M. Tech., in Life Sciences or Biophysics or Physics or Chemistry	Experience in Molecular Cloning, Protein Purification, X-ray Crystallography	1
14.	T1 P3 PF3	X-Ray Crystal Structure Determination and In-Silico Studies of Novel Drug Targets From <i>H. pylori</i>	M.Sc., Biophysics/ Bioinformatics/ Physics	-----	1
15.	T1 P3 PF4	Structural, functional and inhibition studies of MqnA in futasoline pathway in <i>Helicobacter pyroli</i>	M.Sc., Biophysics	Experience in cell culture, protein purification, plant extraction is preferred	1
16.	T1 P3 PF5	Structural and functional characterization of putative moonlighting proteins Glyceraldehyde-3-phosphate dehydrogenase and Enolase from <i>Helicobacter pylori</i>	First class in M. Sc., Biophysics/ Biotechnology/ Bioinformatics	Experience in cloning, protein expression and purification	1
17.	T1 P3 PF6	Structural, Functional and bioinformatic studies targeting the enzyme PseF involved in pseudaminic acid biosynthesis pathway	First class in M.Sc., Biophysics/ Bioinformatics / Biotechnology	Experience in Computational Biology and Structural Biology	1

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18.	T1 P4 PF1	Genomic Analysis of MIOX, a key Kidney marker for diabetic complication	M.Sc., Biochemistry/ Biotechnology/ M.Sc., Biological sciences/ M. Tech., Biotechnology	Some research training in cell culture and in-vitro studies	1
19.	T1 P4 PF2	Cardioprotective effect of Aegeline in management of diet induced dyslipidemia	M.Sc., Biochemistry/ Biotechnology/ M.Sc., Biological sciences/ M. Tech., Biotechnology	Some research training in cell culture and in-vitro studies	1
20.	T1 P4 PF3	Role of Galangin on scopolamine induced dementia in the hippocampus of male Wistar rats	M. Sc., Biochemistry/ Biotechnology/ M. Sc., Biological sciences/ M. Tech., Biotechnology	Some research training in cell culture and in-vitro studies	1
21.	T1 P4 PF4	Managing Diabetes - Effect of Phycocyanin on Glucose transporters	M.Sc., Biochemistry/ Biotechnology / M.Sc., Biological sciences/ M. Tech., Biotechnology	Some research training in cell culture and in-vitro studies	1
22.	T1 P5 PF1	Spinal cord injury repair research	First Class Postgraduate degree in Anatomy/ Neuroscience (Faculty of Medicine)	Work experience in Animal experiments is mandatory. Prior experience in rodent models of spinal cord injury highly desirable.	1
23.	T1 P5 PF2	Reproductive Biology	First Class Postgraduate degree in Anatomy/Neuroscience (Faculty of Medicine)	Work experience in Animal experiments is mandatory. Prior experience in animal surgery for creating castration / testicular torsion models in rodents are also mandatory.	1
24.	T1 P5 PF3	Cerebrovascular Diseases	First Class Postgraduate degree in Anatomy/Neuroscience (Faculty of Medicine)	Work experience in Animal experiments is mandatory. Prior experience in rodent models of cerebral stroke / hypoperfusion highly desirable.	1
25.	T1 P5 PF4	Cardiovascular Research	First Class Postgraduate degree in Anatomy/ Neuroscience (Faculty of Medicine)	Work experience in Animal experiments is mandatory. Prior experience in rodent surgery and ECG analyses in rodents are also mandatory.	1

Sl. No	Post Code	Title	Qualification	Desirable Qualification	No. of Post
26.	T1 P6 PF1	Modulatory effect of <i>Celastrus paniculatus</i> on neuroimmuno endocrine network in neurodegenerative diseases	M.Sc., Physiology with 60% marks.	A good academic record working experience in animal handling, stereotaxic and molecular biology techniques will be preferred. Excellent communication skills in written and spoken English are desirable.	1
27.	T1 P6 PF2	To determine the Neuroprotective effect of <i>Celastrus paniculatus</i> in rotenone induced Parkinsonism in zebrafish model.	M.Sc., Physiology with 60 % marks	Preference will be given to candidates having previous experience in handling zebrafish experiments.	1
28.	T1 P6 PF3	To understand the ameliorative effect of <i>Celastrus paniculatus</i> on the neuroendocrine system of maternal restraint stress-induced rats.	M.Sc., in Life sciences with 55%. M.Phil (Endocrinology) is preferable.	Expertise with ELISA, RIA, PCR and western blotting technique	1
29.	T1 P6 PF4	Screening for Immunomodulatory effect of <i>Celastrus paniculatus</i> in human macrophage THP-1 for treating neuroinflammation	M.Sc. , Immunology/ Microbiology/ Biochemistry, and Genetics with 60%	A good academic record and working experience in immunology and molecular biology techniques with practical training in flowcytometry will be preferred	1
30.	T1 P6 PF5	Evaluating the Neuroprotective effect of <i>Celastrus paniculatus</i> extract against rotenone induced apoptosis in Neuroblastoma Cells	M.Sc., in Genetics or any other life sciences with 55% marks.	A good academic record and working experience in cell culture and molecular biology techniques will be preferred. Excellent communication skills in written and spoken English are desirable.	1

Instructions:

- Post Doctoral Fellow Salary Rs.55,000/- per month (Consolidated)
- Project Fellow Salary Rs.18,000/- per month (Consolidated)
- Duration One Year (Extendable depending on performance)
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- The post is to be filled up on purely temporary basis. The duration of the post is co-terminable with the project.
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- The Candidates send the application with cover letter along the CV, copies of relevant certificates and proof for experience/publications if any, to **The Registrar, University of Madras, Chennai 600 005, through Post.**
- Applicants may also be submitted their applications **through e-mail** to **c3section.uom@gmail.com**
- The University reserves the right to fill or not to fill up the above posts.

Coordinator
Research, Innovation and Quality Improvement
RUSA 2.0



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