



SRI RAMACHANDRA UNIVERSITY CENTRAL RESEARCH FACILITY

Sri Ramachandra University, a Harvard Medical International Associated Institution, has established a Central Research Facility to gain recognition as a Centre of Excellence in Medical Research. Prof. S.P.Thyagarajan, an internationally renowned Medical Scientist and former Vice-Chancellor, University of Madras is co-ordinating this activity as Pro Chancellor (Research) of the University. He has conducted 55 research projects during his 40 years of research career, made 335 publications and written 18 books. He holds a patent for a drug formulated from an Indian medicinal plant, *phyllanthus amarus*, for chronic Hepatitis B and holds 4 more patents.

The University has established the Central Research Facility (CRF) in the year 2007 as the “A to Z gateway” for research, to take care of all logistics of research planning, research projects administration, research documentation, providing centralized sophisticated equipment facility and University-Industry Liaison Centre with IRP/Patents Cell on a ‘ready to use platform’ to the entire university.

This facility in a plinth area of 25,000 sq.ft. has a Medical Informatics and study design unit, Contract Clinical Trials Division, Epidemiology Research unit, Project Development and Documentation Unit, Traditional Medicine Research Unit & University Sophisticated Instrumentation Centre. All high-tech equipments for genomics, proteomics, spectroscopy, chromatography, radioisotopy, microscopy, NMR facilities along with walk-in-cold room [4°C], cryopreservation unit [-80°C and – 146°C], cold room [-20°C] etc. are available in CRF besides a centralised administrative office. All Research & Development activities of the University are co-ordinated by Professor of Eminence & Dean [Research]

Presently there are 520 major and minor research projects operational in the University which are broadly classified as (a) International collaborative projects, (b) Sponsored research projects funded by national agencies like Department of Science and Technology, Department of Bio-Technology, Indian Council of Medical Research, Council of Scientific and Industrial Research etc., (c) Industry -Institutional R&D consultancy projects jointly funded by DST, industries and international agencies, (d) Multinational and multi centric clinical trials, (e) Individual research projects by faculty and postgraduate students including Ph.D. students.

The Department of Scientific and Industrial Research [DSIR], India has recognised Sri Ramachandra University as Scientific & Industrial Research Organisation [SIRO] and the Department of Science & Technology, Government of India has provided Customs/Central Excise Duty Exemption registration to Sri Ramachandra University for 5 years.

CLINICAL TRIALS DIVISION

The Central Research Facility has also developed an exclusive Contract Clinical Trial Facility adhering to the international requirements taking care of privacy and confidentiality of study subjects, documentation and analysis facility with necessary accreditation of the facility. Of the 68 clinical trials, 31 are ongoing, granted by international pharmaceutical companies.

UNIVERSITY – INDUSTRY LIAISON CENTRE (UILIC)

Sri Ramachandra University has established the UILIC in the Central Research Facility with approved university level consultancy rules in tune with UGC/CSIR norms. In addition to routine consultancy projects, the university, during 2007-08, has developed major Industry -Institutional collaboration with M/s Bristol Myers Squibb, USA on, “DBT – Centre of Excellence for Teaching & Training in Drug Discovery and Translational Medicine”. R & D collaborations are also being developed with M/s Genzym Corporation, USA, M/s Pfizer Limited (Preferred Research Site Project), M/s Nicholas Piramal Life Sciences Limited, India; M/s. Agada health Sciences, India; M/s. Arvind Remedies; M/S. Rumi Herbals etc., UILIC also has a patents cell for IPR protection activities.

TECHNOLOGY BUSINESS INCUBATOR (SRU-TBI)

Department of Science & Technology (DST), Government of India has identified Sri Ramachandra University for the establishment of Technology Business Incubator in the year 2009 with the aim of transforming entrepreneurs to technopreneurs and to evolve them as business enterprises by providing laboratory, academic, administrative and venture capital support with continuous hand-holding avenues at the TBI. Good number of start-up candidates are joining the SRU-TBI.

CENTRAL FACILITY FOR TOXICOLOGY AND DEVELOPMENTAL RESEARCH (CEFT)

A world class fully air-conditioned “Central Animal Facility for Developmental Research and Toxicology” with facilities for breeding, maintenance, experimentation and laboratory studies has been exclusively developed in a plinth area of 15,000 sq.ft. This animal facility will be utilized for experimental research in accordance with the principles of good laboratory practices and CPCSEA guidelines of the Government of India. Further, it will facilitate research & development in partnership with academic institutions, industries and funding agencies for drug discovery-cum-validation, devices development and all aspects of Translational Medical Research. The Centre will also be involved in skilled manpower development through education and training in laboratory animal care and experimental techniques.

The ‘Research Vision’ of Sri Ramachandra University is to evolve the University as an “International Centre of Excellence in Translational Medical Education & Research and Biomedical Nanotechnology”.

For more details:

Professor of Eminence & Dean (Research)

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Central Research Facility, Sri Ramachandra University
User Charges For Sophisticated Instrumentation Laboratory (SIL)
(Effective from 1-4-2010)

S.No	Facility	Students/Researchers/Faculties			Industry
		SRU Students	Outside Students	Sponsored Projects	
1.	FT NMR				
	a) Proton NMR, C 13 NMR	200	300	400	1000
	b) NOESY & COSY (2D)	400	500	600	2000
2.	FTIR				
	Spectra / Sample	100	150	200	500
3.	UV-Spectrophotometer				
	a) Spectral Sample	75	150	175	300
	b) Absorbance measurement for 30 minutes (OD)	50	100	200	200
4.	Gas Chromatography				
	a) Method development	2500	3000	5000	7500
	b) GC Profile/sample	500	750	1000	2000
	b) GC-MS	1500	2500	4000	5000
5.	Microwave Digester				
	Digestion/Sample	50	100	200	300
6	ICP-MS				
	a) Minimum 3 Elements/Sample	2000	2500	4000	5000
7.	AAS per Element/Sample				
	a) Flame	100	100	150	250
	b) Graphite	300	300	400	500
8.	HPLC				
	a) Method development	2500	3000	5000	7500
	b) Analytical	500	500	1000	2500
	c) Preparative(up to 500 mg)	2500	3000	4000	10000
9.	HPTLC				
	1) Finger printing				
	a) Single	750	750	1000	2000
	b) Formulation	1000	1000	2000	4000
	2) Linearity (Standards to be supplied)				
	c) Single	2500	3000	5000	10000
	d) Formulation	3000	4000	6000	20000
	3) Purity analysis				
	e) Single	750	750	1000	2000
	f) Formulation	1000	1000	2000	4000
10.	Ultracentrifuge				
	a) Analytical	200	300	400	800
	b) Preparative	400	600	800	1200

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11.	DNA Sequencer				
	a) Sequencing for amplified products (one sample single strand)	800	1000	1200	2000
	b) Fragment analysis (Single sample)	400	500	600	1200
	c) Equipment usage for 48 samples (includes Polymer, Buffer & Plate)	6000	6500	7000	14000
	d) Equipment usage for 96 samples (includes Polymer, Buffer & Plate)	11,000	11,500	12,000	24,000
	e) Equipment usage only (Excludes Polymer, Buffer & Plate)	1000	1250	1500	2000
	Note: Only certified chemicals will be allowed for usage. Cost excluding primers. Charges will vary based on proforma.				
12.	Real Time PCR (SYBR Chemistry)				
	a) Sample with cDNA (per well)	250	400	500	1000
	b) Sample with mRNA (per well)	500	800	1000	2000
	c) Equipment usage (96 wells) (Includes Plate only)	1500	2000	2500	5000
	d) Equipment usage only (96 wells)	1000	1200	1500	3000
	Note: Only certified chemicals will be allowed for usage. Cost excluding primers. Charges will vary based on proforma.				
13.	Flow Cytometry BD FACS Calibur				
	(without processing charges)				
	a) Single Color	200	300	400	1200
	b) Dual Color	300	400	500	1500
	c) More than 2	400	500	600	1800
	Flow Cytometry BD FACS Calibur (with processing charges)				
	a) Single Color	400	500	600	1700
	b) Dual Color	500	600	700	2000
	c) More than 2	600	700	800	2500
	* Cost excluding tailored specific dyes				
14.	Flow Cytometry BD FACS Aria				
	(without processing charges)				
	a) Single Color	300	400	500	1500
	b) Dual Color	400	500	600	2000
	c) More than 2	500	600	700	2500
15.	Confocal Microscopy Equipment Usage (per hour)	250	500	600	1200
Note: In all investigations, reagents and their charges are not included, unless specifically mentioned.					

Copy to: 1. Vice Chancellor 2. Dean (Faculties)
3. All departments of constituent colleges 4. Chief Finance officer

For Kind information:

1. The Chancellor
2. The Chief Advisor

(S.P.THYAGARAJAN)
Professor of Eminence & Dean (Research)
SRI RAMACHANDRA UNIVERSITY
(Estd. under section 3 of the UGC Act 1956)
PORUR, CHENNAI 600 116, INDIA

Details of equipment procured during the last 3 years:

S.No	Equipment/spare s & accessories/ chemicals	Supplier's Name	Date of Purchase	Whether Imported or Indigenous	Cost of Equipment	Value of Import Duty/Excise Duty exemption availed
1.	Water Purification System	M/s Millipore India Pvt.Ltd	11-06-2008	Imported	363563	34015
2.	DNA Sequencer 3730	M/s Applied Biosystems (ABI), Lab India Instruments Pvt.Ltd., Chennai	11-06-2008	Imported	20459570	818383
3.	ICP(MS)	M/s Perkin Elmer (India) Pvt. Ltd.	22.08.2008	Imported	4125648	165026
4.	GC(MS)	M/s Perkin Elmer (India) Pvt. Ltd.	22-08-2008	Imported	4125648	165026
5.	Confocal Laser Scanning Microscop workstation including Digital Imaging Model LSM 510	M/s Carl Zeiss	30-07-2008	Imported	12479156	1167550
6.	Spectrometer Advancers 400 mHZ FT Nuclear Magnetic Resonance(NMR) With all accessories	M/S Bruker India Scientific Pvt.Ltd, Bangalore.	31-10-2008	Imported	11284992	451400
7.	High Performance Thin Layer Chromatography (HPLC) (Analytical & Preparative)	M/s Camag Chmeicerzegni se Adsoptions Technikag	18-07-2008	Imported	4688824	187553
8.	High Performance Liquid Chromatography	M/s Shimadzu (Asia Pacific Pvt Ltd)	07-06-2008	Imported	3747103	149884

	System					
9.	Ultra Centrifuge & Accessories (Model Optimal L100)	M/s Beckman Coulter India Pvt.Ltd, Mumbai.	26-08-2008	-Imported	5578133	521890
10.	Ventilator	Harvard Apparatus	18.07.2008	Imported	861906	80640
11.	Wireless Centralized Data Logging System	M/s. Lisaline Lifescience Technologies (L.L.C)	11.07.2008	Imported	421850	39468
12.	Evaporative Light Scattering Detector – PL with accessories	M/s. Vairan B.V	30.06.2008	Imported	574609	22984
13.	Electro Chemical Detector with accessories	M/s Antec Leyden B.V	30.06.2008	Imported	699152	27966
14.	Alpha-T-FT-IR Spectrometer complete with accessories	M/s Bruker Optik	18.06.2008	Imported	757702	30308
15.	Wireless Centralized Data Logging System	M/s Lisaline Life science Technologies (L.L.C)	29-05-2008	Imported	499248	19970
16.	Air shower	M/s Bio-Clean Air Devices & Services	30-12-2007	Indigenous	470000	0
17.	Animal Weighing Balances	M/s Sartorius Mechatronics (I) Pvt.,Ltd.	30-12-2007	Imported	348376	34837
18.	Flowcytometer Bench Top BD Face Air4 Laser System	M/s.Becton Dickinson nad company	29.05.2008	Imported	20657025	826281
19.	Bedding De-duster (Power Coating)	Sri Srinivasa Engineering	30.12.2008	Imported	35000	0
20.	Animal House Instruments and OT Devices	M/s Marsap Services Pvt.Ltd., Mumbai	30.12.2008	Imported	1028135	10281
21.	Refrigerated Centrifuge with accessories Model 5810R	M/s Eppendorf AG, Germany	03-07-2008	Imported	415068	38834

22.	pH meter with auto calibration Model : PB 11	M/s Sartorius Mechatronics (I) Pvt.Ltd	03-07-2008	Imported	401571	37571
23.	Water Purification System (2LXS5VIOY EUX10UV 230V 50 Hz)	M/s Millipore India Pvt.Ltd	29-05-2008	Imported	859005	80368
24.	Operating Table for Animal House	M/s Hugo Sachs Elektronik-Harvard Apparatus GmBH, Germany	11-02-2009	Imported	209848	19633
25.	Instruments for Animal Cages	M/s I.L.E. Co., Chennai	27.12.2008	Indigenous	366306	0
26.	Electrochography + 1 ft High grade Combi Unit Sonoplus 692 with all accessories ultrasound	M/s Enraf-Noiu S.B.U.	29-10-2008	Imported	714235	66824
27.	Binocular Microscopes with all accessories	M/s Olympus Singapore Pvt Ltd	18-10-2008	Imported	2325311	217556
28.	Spectrophotometer UV etre with all accessories	M/s Thermo Fisher Scientific (Asheville)	18-10-2008	Imported	922175	36887
29.	Spectrometer Elan 9000 with all accessories	M/s Perkin Elmer Singapore Pvt Ltd	30-08-2008	Imported	5758717	23049
30.	Door Assembly Laboratory Incubator	M/s Thermo Fisher Scientific (Asheville) LLC	31-07-2008	Imported	47558	4450
31.	Metabolic Cages	M/s.Techni Plast S.P.A.	06-11-2008	Imported	218917	20482
32.	Trinocular Inverted Research Microscope Model Ti-S "Nikon"	M/s Nikon Corporation, Fuji	24-06-2008	Imported	950695	88947
33.	Heart-Lung	M/s Sorin	26-04-2008	Imported	3002478	280912

	Machine SIII Stockart	Group Italia				
34.	Gel Documentation with Chemiluminescence	M/s BioRad Pacific Limited	14-03-2009	Imported	1233141	49326
Total					89807532	5718301

SRI RAMACHANDRA UNIVERSITY

(Established u/s.3 of the UGC Act, 1956)

PORUR, CHENNAI – 600 116

GUIDELINES FOR FINANCIAL TRANSACTIONS OF SPONSORED RESEARCH PROJECTS AND CLINICAL TRIALS (FUNDED BY EXTERNAL AGENCIES)

1. The Principal Investigator while finalising the Project falling in line as per the guidelines of Sri Ramachandra University/Sri Ramachandra Medical Centre should also forward a copy of the proposed Budget/Estimate with all relevant details for financial concurrence by the Chief Financial Officer and Director & Chief Advisor (Research).
2. (a) A copy of the Memorandum of Agreement/Memorandum of Understanding duly signed as per Tripartite Agreement between the Funding Agency, Sri Ramachandra University/Sri Ramachandra Medical Centre and the Principal Investigator, wherever applicable, shall be forwarded to the Central Research Facility-Accounts Department(C.R.F.-Accounts Department), which shall include the sanction of Budget with break-up of head of account/nature of expenses etc.

(b) For the currently existing projects carried over beyond 31st March, 2009, the Principal Investigators are required to forward a copy of the Memorandum of Understanding already signed along with the budget allocation and the utilization of the fund under various heads of allocation until 31.03.2009 with the balance to be carried over with effect from 01.04.2009.
3. The C.R.F.-Accounts Department shall open a separate folio for every new project, shall maintain a separate file and account for the said project by allotting a code number. The Principal Investigators are requested to quote this code number and short title of the project in all correspondence to Central Research Facility and the funding agencies.
4. The Receipt of cheque for each project should be handed over to C.R.F.-Accounts Department through Director & Chief Advisor (Research) along with the respective sanction letter.

5. (a) On the advise of Principal Investigator, each and every payment by cheque/cash shall be honoured by the C.R.F.-Accounts Department on prior approval by Director & Chief Advisor(Research).
- (b) The C.R.F.-Accounts Department shall verify the allocation and availability of the fund in the budget under the concerned nature of expenses and shall pass the same for payment.
- (c) All the relevant supporting papers/documents in respect of the payment shall be produced by the Principal Investigator to the C.R.F.-Accounts Department. On verification of the same, the amount shall be settled directly to the party concerned by cash/cheque and the supporting papers shall be retained in files by the C.R.F.-Accounts Department.

6. **PURCHASE PROCEDURE:**

- a) For purchase of consumables as one time purchase with less value (say less than Rs.10,000/-), the same can be purchased directly by the Principal Investigator and the bill be approved by the Director & Chief Advisor(Research) before forwarding to the C.R.F.-Accounts Department.
- b) The item so purchased should be entered in the stock register to be maintained by the Principal Investigator.
- c) For settlement of this bill, either an advance could have been taken and the account settled (or) the amount may be reimbursed to the Principal Investigator, who would have already paid.
- d) For purchase of consumables and other items including instruments and equipments on a continuous basis throughout the period of the project, the purchase committee which shall include the Principal Investigator of the project and other members as nominated by the Director & Chief Advisor (Research) shall identify the supplier, negotiate and finalise the price and the terms of payment. Purchase order shall be placed by the C.R.F.-Accounts Department for each of these purchases and on receipt of the material, the invoice/delivery challan should have the endorsement from the main gate security ; details entered in the project stock register as maintained by Principal Investigator ; and the folio of the stock register entered in the invoice

and forwarded with the stock register through the Director & Chief Advisor(Research) to the C.R.F.-Accounts Department for payment along with the details of fund sanctioned under the relevant head, and the amount already spent in that head. In the case of purchase of equipment, the installation report duly certified by the project Principal Investigator should also be forwarded.

- e) Principal Investigators and researchers have to utilize the investigational facilities available at Sri Ramachandra Medical Centre and university departments, unless otherwise specified by the sponsors of the project. In such cases, concessional rates would be considered by Director (Research) based on the budget sanctioned and opinion from the concerned laboratory/department.
7. In case of any disbursement to the patient, the amount so required shall be collected by the Principal Investigator, as advance from the C.R.F.-Accounts Department after been approved by Director & Chief Advisor(Research) and the account for the same shall be settled by the Principal Investigator after obtaining the signature of every receiver.
8. (a) In the case of payment to the Principal Investigator, in respect of their eligibility under the budget sanctioned, a request for the same shall be forwarded through the Director & Chief Advisor(Research) to the C.R.F.-Accounts Department as per the schedule of eligibility for the claim. After deducting the necessary tax applicable, the payment shall be effected by cash/cheque.
- (b) Salaries for the project staff on full or part time basis(other than on Sri Ramachandra University role) will be fixed as per the guidelines prescribed by the funding agency in accordance with Institutional policies and the same shall be approved by the Director & Chief Advisor(Research).
- (c) Amount granted for salary assistance will be disbursed from the respective project account to the project staff as per the list provided by the Principal Investigator to the C.R.F.-Accounts Department through Director & Chief Advisor(Research) after receiving their monthly attendance certificate endorsed by the Principal Investigator.

- (d) Where study coordinators perform at a time for more than one project their remuneration shall be equally apportioned to the respective projects carried out by them.
9. All payments shall be encouraged only on confirming the availability of the balance in the budget under the said nature of expense in the respective project account.
 10. All relevant papers and documents in respect of Receipt and payment shall be maintained by the C.R.F.-Accounts Department, project wise.
 11. Necessary Utilisation Certificate shall be issued by the C.R.F.-Accounts Department periodically as per the requirement under each project which shall be duly be certified by the Chief Financial Officer, Principal Investigator and the Director & Chief Advisor (Research).
 12. The Equipment and Instrument purchased under each project shall be used for the concerned project and on completion of the said project, the Equipment and Instrument shall be handed over to Sri Ramachandra University/Sri Ramachandra Medical Centre through Director & Chief Advisor (Research).
 13. The Annual Maintenance Contract (AMC) charges for the equipments purchased under the project which were externally funded shall be covered from the project resources until the completion of the project. On transfer of these equipments to the Institution on the completion of each project, then the AMC shall be met by the Institution.
 14. The amount sanctioned for Institutional overhead in each project(not less than 20% of the overall project cost w.e.f. June 2008) will be transferred from the project account to the Institutional overhead account on receipt basis. In the event any Government project are taken up that do not permit this quantum of overhead, wherein only less than 20% overhead could be provided, an approval has to be obtained from the Director & Chief Advisor(Research) prior to submission of estimates to such of those authorities.
 15. All withdrawals from the project account must be endorsed by the Principal Investigator and Director & Chief Advisor (Research).

16. On certain extraordinary occasion, overdrawn may be permitted at the discretion of the Director & Chief Advisor (Research) on the recommendation of Chief Financial Officer when supported by a letter of commitment from the funding agency supporting the transfer of money in the near future. In the event of abnormal delay in settlement of the overdrawal, an interest @ 15% per annum shall be charged from day one of permitting the overdrawal limit until the date of settlement and same shall be debited to the respective project account and to the appropriate head of expense.
17. All Bills and Vouchers pertaining to project expenses will be audited by the University appointed Auditor for a fee (wherever applicable).
18. The Principal Investigators are authorized to incur expenses strictly as per the Budget allocation only. Minor deviation from one head of account to another can be done in exceptional cases only with written permission from the Director & Chief Advisor (Research) and in consultation with the funding agency, wherever required.
19. Surplus of any leftover amount on completion of the projects related to clinical trials and consultancy projects shall be retained by the Institution and shall be permitted to be shared in the ratio of 25% to the Principal Investigator and their team; 25% for department developments and balance 50% to the Institution.

The above scheme shall apply to the projects which had ended up with surplus fund and already completed as at 31st March, 2009 and to the projects that are to be completed in future.

20. These financial guidelines shall cover all external funding received through the State/Central Government including National and International agencies etc.

These above Guidelines shall be implemented with effect from **1st April, 2009** onwards.

(S.P. THYAGARAJAN)
Director & Chief Advisor (Research)