



**DHR- Multidisciplinary Research Unit  
Dr. ALM PG Institute of Basic Medical Sciences  
University of Madras, Taramani Campus  
Chennai – 600113**

# DHR-MRU Established: 2014

## Grants received details from DHR:

(from 2013-14 to 2022-23)

### Non-recurring grants:

Civil: Rs. 25,00,000/-

Equipment: Rs. 4,99,00,000/-

**Total (A): Rs. 5,24,00,000/-**

### Recurring grants:

Staff Salary: Rs. 1,45,18,572/-

Training/Consumables/Contingency: Rs. 86,40,699/-

**Total (B): Rs. 2,31,59,271/-**

**Total grants received up to March 2023 (A+B): Rs. 7,55,59,271/-**

## Recurring grants details per Annum:

(as per DHR revised Doc.)

Staff Salary: Rs. 28,00,000/-

Training/Consumables/Contingency: Rs. 20,00,000/-

**Total : Rs. 48,00,000/-**

**RUSA grants received from the University of Madras (2016-17): Rs. 4,00,000/-**

(to support the MRU infrastructure facility)

## Infrastructure facility

**DHR- Multidisciplinary Research Unit  
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# Office



# Clinical Biochemistry

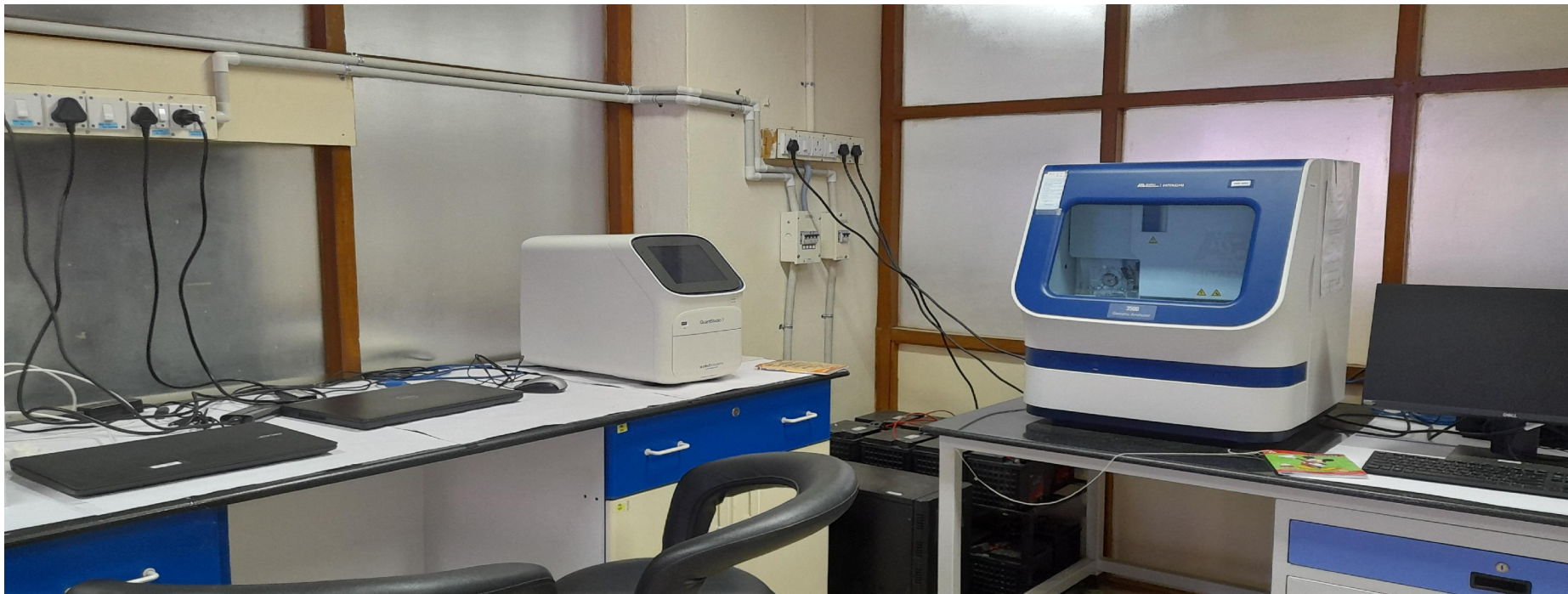


Common Lab









# High-speed centrifugation & Ultra Deep Freezer (Imaging facility Room)





**Histopathology Room**



**Corridor**





## Progress of research activities

**DHR- Multidisciplinary Research Unit  
Dr. ALM PG Institute of Basic Medical Sciences**

## **LIST OF PUBLICATIONS WITH IMPACT FACTORS**

1. Bharath G, Vishnuprabu DP, Preethi L, Nagappan AS, Dhianeshwaran Isravanya RT, Bhaskar LV, Swaminathan N, Munirajan AK. SLCO1B1 and ABCB1 variants synergistically influence the atorvastatin treatment response in South Indian coronary artery disease patients. *Pharmacogenomics*. 2022 Aug;23(12):683-694. doi: 10.2217/pgs-2022-0044. Epub 2022 Aug 15. PMID: 35968761. **Impact Factor: 2.638**
2. Ramachandran V, Bhagavatheeswaran S, Shanmugam S, Vasudevan M, Rangunathan M, Cherian KM, Munirajan AK, Ravi S, Balakrishnan A. Deep sequencing unveils altered cardiac miRNome in congenital heart disease. *Mol Genet Genomics*. 2022 Jul;297(4):1123-1139. doi: 10.1007/s00438-022-01908-z. Epub 2022 Jun 7. PMID: 35668131. **Impact Factor: 2.980**
3. Mathew Maria Rose, Shankar Dhamodharan, Sundaramoorthy Revathidevi, Sundaram Reddy Chakkarappan, ... Arasambattu Kannan Munirajan. High incidence of PI3K pathway gene mutations in South Indian cervical cancers. In Press, Journal Pre-proof, Available online 8 May 2022. **Impact Factor: 2.523**
4. Mathew Maria Rose, Shankar Dhamodharan, Govindaswamy Bharath, Kannan Murali, Shanmugam Subbiah, Lakkakula VKS Bhaskar, Avaniyapuram Kannan Murugan, Arasambattu Kannan Munirajan. Linc-ROR genetic variants are associated with the advanced disease in oral squamous cell carcinoma. 2022 Apr 6;139:105428, *Archives of Oral Biology*. **Impact Factor: 2.633**
5. Pugazhendhi Kannan, Malathi Raghunathan, Thangarajeswari Mohan, Shanthi Palanivelu & Kalaiselvi Periandavan. Gymnemic Acid Ameliorates Pancreatic  $\beta$ -Cell Dysfunction by Modulating Pdx1 Expression: A Possible Strategy for  $\beta$ -Cell Regeneration. *Tissue Engineering and Regenerative Medicine*. 2022 Feb 25. **Impact Factor: 4.169**



6. Dhamodharan S, Rose MM, Sundaram RC, Umadharshini KV, Arulmurugan R, Subbiah S, Inoue I, Munirajan AK. A Genetic Variant rs10251977 in Long Non-coding RNA EGFR-AS1 Creates a New Binding Site for miR-891b and Modulates the Expression of EGFR A/D Isoforms. *Scientific Reports*. 2021 Apr 22;11(1):8808. **Impact Factor: 4.379**
7. Mohan T, Narasimhan KKS, Ravi DB, Velusamy P, Chandrasekar N, Chakrapani LN, Srinivasan A, Karthikeyan P, Kannan P, Tamilarasan B, Johnson T, Kalaiselvan P, Periandavan K. Role of Nrf2 dysfunction in the pathogenesis of diabetic nephropathy: Therapeutic prospect of epigallocatechin-3-gallate. *Free Radic Biol Med*. 2020 Nov 20;160:227-238. **Impact Factor: 7.376**
8. Revathidevi S, Murugan AK, Nakaoka H, Inoue I, Munirajan AK. APOBEC: A molecular driver in cervical cancer pathogenesis. *Cancer Letters*. 2021 Jan 1;496:104-116. **Impact Factor: 8.679**
9. Vinothkumar V, Arun K, Arunkumar G, Revathidevi S, Ramani R, Bhaskar LV, Murugan AK, Munirajan AK. Association between functional TERT promoter polymorphism rs2853669 and cervical cancer risk in South Indian women. *Molecular and clinical oncology*. 2020 May 1;12(5):485-94. **Impact Factor: NA**
10. Revathidevi S, Munirajan AK. Akt in cancer: mediator and more. *Seminars in cancer biology* 2019 Dec 1 (Vol. 59, pp. 80-91). Academic Press. **Impact Factor: 15.70711.**
11. Arunkumar G, Anand S, Raksha P, Dhamodharan S, Rao HP, Subbiah S, Murugan AK, Munirajan AK. LncRNA OIP5-AS1 is overexpressed in undifferentiated oral tumors and integrated analysis identifies AS a downstream effector of stemness-associated transcription factors. *Scientific reports*. 2018 May 4;8(1):7018. **Impact Factor: 4.379**

12. Arun K, Arunkumar G, Bennet D, Chandramohan SM, Murugan AK, Munirajan AK. Comprehensive analysis of aberrantly expressed lncRNAs and construction of ceRNA network in gastric cancer. *Oncotarget*. 2018 Apr 6;9(26):18386. **Impact Factor: 5.168**
13. Sudesh R, Thalamuthu A, John S, Thara R, Mowry B, Munirajan AK. Replication of GWAS identified miR-137 and its target gene polymorphisms in Schizophrenia of South Indian population and meta-analysis with Psychiatric Genomics Consortium. *Schizophr Res*. 2018 Mar 26. pii: S0920-9964(18)30180-4. **Impact Factor: 4.939**
14. Arunkumar G, Rao DM, Kuha A, Manikandan M, Prasanna Srinivasa Rao H, Subbiah S, Ilangovan R, Murugan AK, Munirajan AK. Dysregulation of miR-200 family microRNAs and epithelial-mesenchymal transition markers in oral squamous cell carcinoma. *Oncology letters*. 2018 Jan 1;15(1):649-57. **Impact Factor: 2.967**
15. Thangam Menon, Sathya Narayanan Gopalakrishnan, Rayvathy Balasubramanian, Stalin Roy Justin. Characterisation of the Human Oral Microbiome in Patients with Coronary Artery Disease Using Next-generation Sequencing of 16SrRNA Amplicons. *IJMM*, August 14, 2018, IP: 14.139.186.164]. **Impact Factor: 2.461**
16. Arunkumar G, Deva Magendhra Rao AK, Manikandan M, Arun K, Vinothkumar V, Revathidevi S, Rajkumar KS, Rajaraman R, Munirajan AK. Expression profiling of long non-coding RNA identifies linc-RoR as a prognostic biomarker in oral cancer. *Tumor Biology*. 2017 Mar;39(4):1010428317698366. **Impact Factor: 3.32**
17. Arunkumar G, Murugan AK, Prasanna Srinivasa Rao H, Subbiah S, Rajaraman R, Munirajan AK. Long non-coding RNA CCAT1 is overexpressed in oral squamous cell carcinomas and predicts poor prognosis. *Biomed Rep*. 2017 Apr;6(4):455-462. doi: 10.3892/br.2017.876. Epub 2017 Mar 17. **Impact Factor: 1.8**

18. Arunkumar G, Murugan AK, Nagarajan M, Ajay C, Rajaraman R, Munirajan AK. Absence of the frequently reported PIK 3 CA, CASP 8, and NOTCH 1 mutations in South Indian oral cancers. *Oral diseases*. 2017 Jul;23(5):669-73. **Impact Factor: 3.511**
19. Rao AK, Manikandan M, Arunkumar G, Revathidevi S, Vinothkumar V, Arun K, Tiwary BK, Rajkumar KS, Rajaraman R, Munirajan AK. Prevalence of p53 codon 72, p73 G4C14-A4T14 and MDM2 T309G polymorphisms and its association with the risk of oral cancer in South Indians. *Gene Reports*. 2017 Jun 1;7:106-12. **Impact Factor: NA**
20. Sudesh R, Priyadarshini T, Preeti R, John S, Thara R, Mowry B, Munirajan AK. Minor allele C of rs12807809 polymorphism in NRG1 contributes to the severity of psychosis in patients with Schizophrenia in South Indian population. *Neurosci Lett*. 2017 May 10;649:107-111. doi: 10.1016/j.neulet.2017.04.008. Epub 2017 Apr 4. **Impact Factor: 3.046**
21. Revathidevi S, Manikandan M, Rao AK, Vinothkumar V, Arunkumar G, Rajkumar KS, Ramani R, Rajaraman R, Ajay C, Munirajan AK. Analysis of APOBEC3A/3B germline deletion polymorphism in breast, cervical and oral cancers from South India and its impact on miRNA regulation. *Tumour Biol*. 2016 Sep;37(9):11983-11990. Epub 2016 May 7. **Impact Factor: 3.32**

**TRAINING/WORKSHOP**

## **Training:**

- 1. Short-term Fellowship for training in Foreign Institutes:**  
Nodal Officer, DHR-MRU visited the National Institute of Genetics, Japan under 2-month training from Dec 2015 - Jan 2016 and established the collaborated research work.
- 2. Short-term Fellowship for training in Foreign Institutes:**  
Nodal Officer, DHR-MRU visited the National Institute of Genetics, Japan under 1-month training from Aug 2018 - Sep 2018 and established the collaborated research work.
- 3. Short-term Fellowship for training in Indian Institutes:**  
Dr. K. Narayanasamy, Director, Institute of Hepatology & Nodal officer, Madras Medical College and Rajiv Gandhi Government General Hospital, Chennai has been trained for the 3-month duration in the year 2015 under the DHR-MRU in the Nodal Officer's lab in Genetics.
- 4. Long-term Fellowship for training in Foreign Institutes:**  
Dr. V. Sankar, Head i/c, Associated Professor, Department of Anatomy, Dr. ALM PG IBMS, University of Madras has gone for 6 months of long-term foreign training under the DHR facility (2014).
- 5. Short-term Fellowship for training in Foreign Institutes:**  
Dr. Elangovan Vellaichamy, Professor and Head, Department of Biochemistry has gone for 3 months short-term foreign training under the DHR facility (2016).

## Workshop:

**1. Hands-on workshop in Molecular testing for Genetic disorders (2019):**

Ms. Preethi L (Lab Technician), DHR-MRU, Dr. ALM PG Institute of Basic Medical Sciences attended a hands-on workshop in Molecular testing for Genetic disorders on 11<sup>th</sup> Nov 2019 – 15<sup>th</sup> Nov 2019 at Centre for DNA Fingerprinting and Diagnostics (CDFD), Hyderabad, Telangana under the DHR facility.

**2. Hands-on workshop in Clinical Application of Molecular Cytogenetics (2019):**

Ms. Padmavathi G (Lab Technician), DHR-MRU, Dr. ALM PG Institute of Basic Medical Sciences attended a hands-on workshop in Clinical Application of Molecular Cytogenetics on 10<sup>th</sup> Jun 2019 – 15<sup>th</sup> Jun 2019 at Centre for DNA Fingerprinting and Diagnostics (CDFD), Hyderabad, Telangana under the DHR facility.