

### Ongoing Extramural Funded Project: 01

Sl. No	Title of the Project	Principal Investigator	Coinvestigators	Ethical Clearance Number	Sponsor	Total Grant Sanctioned for Three Years
1	Identification of Sirtuin1 Gene Polymorphism Associated with Fluorosis and Type II Diabetes Mellitus-	Dr. Shashidhar KN	Dr.Sai Deepika R	No.SDUAHER/KLR/R&D/07/2022-23 19-01-2023	ICMR-DHR Grant-in-Aid 2022-23	19,10,000/-

### Ongoing University Funded Research Projects by Faculty: 11

Sl No.	Title of the research project	Principal Investigator	Co-investigator	Departments	Remarks
1.	Serum Total Bilirubin and oxidative stress status in diabetic retinopathy- A hospital based observational study	Dr.Prabhavathi.K	Dr. Mamatha Kunder Dr. Shashidhar K.N Dr. Kanthamani Dr. Raveesha A	Biochemistry Ophthalmology Medicine	Work completed Sent for publication
2.	To find association of Fluoride in Diabetes Type 2 and its Microvascular Complications. A Tertiary Care Rural Hospital Case Control Study.	Dr.K.N.Shashidhar	Dr.Deena Mendez Dr.Munilakshmi.U Dr.A.V.M. Kutty Dr. Raveesha	Biochemistry Medicine	Work completed One article published One article sent for publication
3	Antibody status of SARS-CoV2 among laboratory confirmed Covid- 19 health care workers in a tertiary care hospital: A cross sectional study	Dr. Arvind Natarajan	Dr. Prabhakar. K Dr. Prasanna Kamath Dr. Bharathi. R Dr. Sunil. BN Dr.K.N.Shashidhar	Microbiology Medicine Community Medicine Biochemistry	work in progress
4	Does Vitamin D supplementation improve depression scores among rural adolescents	Dr. Pradeep	Dr. Susanna TY	Community Medicine Biochemistry	work in progress
5	Serum lactate- its role in predicting mortality of trauma patients.	Dr. Sagar	Dr. Prabhu Dr. Arun HS Dr. Sai Ganesh Dr. Harish. R	Orthopedics Biochemistry	work in progress
6	Comparison of nutritional approaches of Ayurveda and modern nutrition with the biochemical parameters of young women with PCOS	Dr. Madhavi Reddy	Dr. Munilakshmi U	CND Biochemistry	work in progress
7	Prevalence of anemia in adolescents attending Government run schools	Mr. Ravishankar	Dr. Soumya	Community Medicine	work in

	around Kolar			Biochemistry	progress
8	Serum lactate and Procalcitonin- its role in predicting mortality of trauma patients.	Dr. Sagar	Dr. Prabhu, Dr. Arun HS, Dr. Sai Ganesh, Dr. Prabhavathi K	Orthopedics	work in progress
9	Thiamine Status in Paediatric Sepsis – A Prospective Observational Study in a Tertiary Teaching Hospital	Dr. Sudha Reddy	Dr.Shashidhar.KN Dr. Prabhavathi. K	Paediatric Biochemistry	Work in progress
10	Enriched Nutrition Supplementation for recovery Enhancement in patients with Tuberculosis (ENSURE): A quasi experimental study	Dr. Wasim Anjum	Dr.Prasanna Kamath Dr. Prabhavathi. K	Community Medicine Biochemistry	Work in progress
11	Quantitative assessment of Interleukin in patient with Oral squamous cell carcinoma	Dr. Susanna. T.Y	Dr.Azeem Mohiyuddin	ENT Biochemistry	Work in progress

**Ongoing Dissertation projects – Co-guided by teaching faculty: 06**

Sl No	Title of the research project	Principal investigator	Co-investigator	Departments	Remarks
1	Phosphorylated Insulin like growth factor binding protein-1 as predictor of successful labor induction in full term pregnancy- A cross sectional study	Dr. Kolakotla Ajitha	Dr.Shashidhar KN	OBG Biochemistry	Work in progress
2	Urine protein to creatinine ratio for evaluation of preeclampsia and its maternal and fetal outcome: A Cross Sectional Study	Dr. Ashwini Kashi	Dr.Shashidhar KN	OBG Biochemistry	Work in progress
3	Association of elevated serum ferritin levels in pregnancy with gestational diabetes	Dr. Lakshmi	Dr.Shashidhar KN	OBG Biochemistry	Work in progress
4	The role of HbA1c as an early predictor of gestational diabetes mellitus in early pregnancy- A prospective study	Dr. Somavarapu Divya	Dr.Shashidhar KN	OBG Biochemistry	Work in progress
5	Clinical and laboratory profile in paediatric patients with bicytopenia or pancytopenia in a tertiary care centre in kolar- A cross sectional study	Dr. Ram Swaroop Reddy	Dr.Shashidhar KN	Paediatrics Biochemistry	Work in progress
6	Docosa Hexanoic acid supplementation in preterm neonates admitted in NICU and its effect on inflammatory markers at day 10- An open labelled Randomized Controlled Trial	Dr. Maram Reddy Sai Teja	Dr.Shashidhar KN	Paediatrics Biochemistry	Work in progress

**Accepted STS ICMR Projects 2022- 23: 03**

Sl.No	Title	Moderator	Student	STS Reference ID
1	Association of serum cortisol and prolactin in diabetic retinopathy	Dr.Prabhavathi.K	Ms. Aishwarya Pandey	2023-01159
2	Study of fluoride and thyroid profile status	Dr.Munilakshmi U	Ms. Saakshi	2023-01180

	in pregnancy of second trimester		Bohra	
3	A Hospital Based Retrospective Observational Study on Effect of Dialysis on Iron Profile and Hematological Parameters in male and female	Dr. R.Sai Deepika	Mr. Mriganka kushal Bourah	2023-01172

### Student Projects applied to SDUAHER: 01

Sl. No	Title of the research project	Principal Investigator	Co-investigator
1.	Association of calcium levels, urinary fluoride and WOMAC score in knee osteoarthritis	Mr. Nachiket Naresh Pandey	Dr. Shashidhar KN Dr. Prabhu E

### PhD Scholars Awarded Degree from Department of Biochemistry 2009 to 2022: 10

Sl. No	Names	Year of Joining	Year of Completion
1	Dr. Deena Mendez	2010	2017
2	Dr. Mamatha Kunder	2012	2017
3	Dr. Vanishree	2013	2016
4	Dr. Munilakshmi U	2014	2018
5	Dr. Krishna Sumanth	2015	2018
6	Dr. Ranjitha G	2016	2020
7	Dr. Rajeev Gandham	2017	2021
8	Dr. Saideepika	2017	2021
9	Dr. Bhuneshwar Yadav	2018	2021
10	Dr. Tejaswi Gowdu	2018	2022

### Ph.D Scholars Admissions done under Faculty of Medicine 2022- 23: 02

Miss. P. Sharon Rose: Part Time (in Service)

Mr. Ramagiri Satish: Full Time

### Applied SDUAHER Funded Research Projects 2023

Sl. No.	Title of the Project	Principal Investigator	Co Investigators
1	Expression of Vitamin D receptor (VDR) and estimation of serum lipid, serum calcium and serum vitamin D metabolism in invasive breast tumor. A cross sectional study	Dr. Syeda Sara Farheen	Dr. Subhashis Das Dr. Kalyani R Dr.Prabhavathi.K Dr. Abhay

2	Is there a link between Interlekin-6, Vitamin D, and depression? a cross-sectional study among nursing students at a tertiary care centre in kolar	Dr.Ruthu Sneha C	Dr.Purushotham A Dr.Mohan Reddy M Dr.Munilakshmi.U Mr. Yadla Visha Sree
3	Investigating Occupational Stress and Burnout among Doctors in a Tertiary Care Rural Medical College: A Cross Sectional Study	Dr. Mohan Reddy M	Dr. Ruth Sneha, Dr. Purushotham A Mr. Yadla Vishwa Sree

**YEAR 2022: Total No. of Publications: 15**

Sl.No	Title of the Article	Authors	Journal
1	Effect of Moringaoleifera leaves on hematological profile of fluorosis affected rats	Pravallika Paradala MS Vinutha Shankar A Hemalatha KN Shashidhar	Bioinformation 2022;18(1):14-18
2	Blood Lactate Levels and PRISM III Scores for Prognosis of Shock during Peadiatric Emergencies: A Prospective Observational Cross-sectional Study	S Sri Raksha J Krishnappa KN Shashidhar	Journal of Clinical and Diagnostic Research. 2022;16(2):SC23-SC27
3	Estimation of Ferritin and D-Dimer levels in COVID-19 Patients with Mucormycosis A Cross sectional Study	Susanna T Y SM Azeem Mohiyuddin Sagayaraj Arokiyaswamy HS Brinda PB Anirudh	Journal of Clinical and Diagnostic Research 2022;16(1):BC12-BC15
4	Neurobehavioural and Neurochemical Changes in Arsenic Induced Cerebellar Toxicity in Male Sprague-Dawley Rats: An Experimental Study	Ravi Shankar Prasad Sawan , Sridevi Nangali Srinivasa Shashidhar Kurpad Nagaraj	Journal of Clinical and Diagnostic Research. 2022; 16(3): AC10-AC14
5	Ethical consideration of COVID 19 and compulsory Vaccination: An Indian view point	Dr. Harish R Dr. Rajkumar Dr. Shashidhar KN	J Clin Biomed Sci 2022; 12(1):01-03
6	Ameliorating Effect of Bacopa-Monnieri against Nicotine Induced Cerebellar Toxicity in Male Sprague-Dawley Rats.	Sawan R. S. P Sridevi N. S Shashidhar K. N.	Biomed Pharmacol J 2022;15(2)
7	Association of Serum Iron Indices with Insulin Resistance Index in Euglycaemic Offspring's of Diabetic and Non Diabetic Parents: A Case-control Study	MY Shobha A Jagadamba K PrabHakar J Krishnappa KN Shashidhar	Journal of Clinical and Diagnostic Research. July 2022; 16(7):CC05-CC07
8	Kurpad Nagaraj Shashidhar, Munilakshmi Uppalamethi, Sai Deepika Ram Mohan, Deena Mendez & Raveesha Anjanappa	Changes in diabetic and renal profile of people exposed to fluoride in south India	Bioinformation. 2022; 18(9): 820-824

9	Kunal Thakur, T. Y. Susanna, A. Sagayaraj, S. M. Azeem Mohiyuddin	Postoperative Serum Parathyroid Hormone Levels as a Predictor of Hypocalcemia in Patients Undergoing Total Thyroidectomy	Indian J Otolaryngol Head Neck Surg <a href="https://doi.org/10.1007/s12070-022-03172-4">https://doi.org/10.1007/s12070-022-03172-4</a>
10	Hullur MS, Bharathi R, Madhavi RB, H.S. Brindha, S.M. Azeem Mohiyuddin, R. Kalyani, Anil Kumar Sakalecha, Bukke Ravindra Naik and K.N. Shashidhar J	Post-Covid-19 Invasive Fungal Sinusitis: A Case Series from Southern India.	Pure Appl Microbiol. 2022; 16(4): 2961- 2967. doi: 10.22207/JPAM.16.4.62
11	Artificial Intelligence and Healthcare	Harish R Shashidhar KN	J Clin Diagn Res. 2022; 16(11):YI01-Y 103. <a href="https://www.doi.org/10.7860/JCDR/2022/56148/17020">https://www.doi.org/10.7860/JCDR/2022/56148/17020</a>
12	Oxidized Low-Density Lipoprotein and its Atherogenic Potential	Harish R Shashidhar KN Narayanaswamy S.	International Journal of Biomedicine. 2022;12(3):339-343. doi:10.21103/Article12(3)_RA2
13	Hyperhomocysteinemia: The Continuing Saga	Harish R Shashidhar K N	J Clin Biomed Sci 2022; 12(3):82-83.
14	An overview of analytical considerations of Lead estimation in biological materials	Harish R Shashidhar K N	J Clin Biomed Sci 2022;12(2):40-42.
15	Non invasive Assessment of Interleukin 6 and its clinic-pathologic correlation in patients with Oral Squamous cell carcinoma	Susanna TY Sagayaraj A Azeem Mohiyuddin	Medica Innovatica 2022;11(1):16-19

**YEAR 2023: Total No. of Publications: 09**

Sl.No	Title of the Article	Authors	Journal
1	Is Sunshine Vitamin Related To Adolescent Depression? A Cross- Sectional Study Of Vitamin D Status And Depression Among Rural Adolescents	Pradeep T Ravishankar S Susanna TY Sudha Reddy Navya Reddy	Cureus. 2023; 15(2): e34639 doi:10.7759/cureus.34639

2	Chemical Analysis Of Gallstones In Rural South Karnataka – A Single Center Study	Bangaru Venkata Naveen Kumar Yadav P N Sreeramulu Shashidhar KN Krishna Prasad K Harish R	Gradiva Review Journal. 2023; 9(1): 1097- 1106
3	Harmonization in Laboratory medicine: The Big Picture	Dr. Harish R Dr. Shashidhar KN	J Clin Biomed Sci 2023; 13(1):1-2
4	Assessment of knowledge and attitude about oral cancer among tertiary care rural hospital based outpatient	Dr. Sagayaraj A Dr. Susanna TY Mr. Ravishankar	Cureus 15(3):e36637.DOI 10.7759/cureus.36637
5	Early Detection of Cardiotoxicity In Organophosphorus Poisoning	Raveesha A Anitha A Shashidhar KN Suresh TN Minni Meka Meghashri V	Global Journal for Research Analysis 2023;12(4):70- 71.
6	Bilirubin in Diabetic Retinopathy: Too Little or Too Much?	Harish.R Shashidhar KN	J Clin Biomed Sci 2023;13(2):32-33
7	Serum CA 125 level in normotensive and pre-eclamptic pregnancies in a tertiary care hospital	Sahithya Sivaprasad Sheela S. R. Shashidhar Kurpad Nagaraj	Int.J Reprod contracept obstet Gynecol.2023;12(7);2165 -2169
8	Efficacy of LMS for teaching biochemistry to medical students in India during the CoVid-19 pandemic	KN Shashidhar, Harish Rangareddy U Munilakshmi	Bio information 2023; 19(8): 840-843
9	<b>Chapter in Book:</b> Narrative Review of Nasal Polyposis with Emphasis on Intranasal Corticosteroid Therapy	Dr. Ujval M, Dr. Harish R, Dr. Shashidhar K N Dr. S M Azeem Mohiyuddin)	Research Trends in Medical sciences Volume – 23;147-164 (2023)

### Innovative practices implemented in the Department

To add value to our institution and various stakeholders Department of Biochemistry has identified the “best practices”. The Department of Biochemistry has initiated the Best Technician award, Research Day, Lab tour and awarding the I MBBS student with a gift for highest attendance or highest marks scored in Biochemistry subject during the University summative assessment. These best practices are “contingent, context dependent and defy generic description”.

1. **Best Technician award:** Best technician of the month and annual award promotes laboratory technician as an integral member of the central diagnostic team and encourages good laboratory practice. Technician is awarded best technician for outstanding work performance, positive attitude, team work and motivation. The technicians are assessed using the checklist each month and annually for various aspects of good laboratory practice. The technicians are also identified based on demonstrated interest in attaining additional education and training. There has been substantial increase in the collegiality of the laboratory technicians as evidenced with their concerted efforts and parameters of Biochemistry NABL accredited with newer parameters included in the scope during the latest NABL assessment.
2. **Research Day:** Notification of Research Day has enabled the faculty to dedicate one day of the week for research related activities. Participation in a research day might also provide ways of demonstrating to other departments how it can aid faculty in fulfilling the research requirements of their disciplines. Health education is provided to the local community to utilize the available dietary resources for combating the ill effects of fluorosis. Department offers consultancy services as evidenced with the completed clinical trials with ITC and Juggat pharma. Fluorosis Research & Referral Laboratory under the aegis of department has collaborative projects with other departments and various strategies are planned to reach out to the community. The publication details of the faculty are available in the department. There has been a substantial progress in research and publications following the implementation of Research Day.
3. **Lab tour:** Groups of students receive an introductory session and tour of the clinical laboratory. During the introduction, a wide variety of topics is covered such as the different pre-analytical considerations prior to testing, analytical variables and post examination variables. The different roles of the staff required to run laboratory testing for a large multi-site healthcare system. Students review the specific tasks of each test in each bench area and also gain knowledge of significance of critical values in the lab. By leveraging the involvement of faculty posted in the Lab for medical students' training through interactions with medical students before and throughout the lab tour, provides the early clinical exposure.
4. **Best Student:** Student procuring the highest attendance during the academic year and/or highest marks scored in University summative assessment is conferred with a gift; this award aims to motivate the student progression.

## AWARDS AND ACHIVEMENTS

**Community work** that is not part of curriculum introduced in this period.

- School Health Education program has embedded capacity to impart health education, collect and report on fluorosis mitigation and these extension activities have been recognized by the Heads of the Institutions viz., Sri Siddi Vinayaka School- Nangali, Govt. Girls PU college- Bangarpet and Narayana PU College- Kolar which have awarded letters of appreciation

respectively.

- Analysis of fluoride content in drinking water in campus
- Fluoride estimation done for the project titled “Role of betanin as sirtuin1 modulator in fluoride induced neurodevelopmental toxicity: A preclinical study” from the Department of Pharmacology, KMC, MAHE Manipal
- Articles published in Newspaper (Samyuktha Karnataka, Kannada Prabha, Vijaya Vani, Kolar Pathrika)
- Created FRRL YouTube channel and uploaded the webinars conducted in the department



8. **Awards** achieved by Department or faculty if any:

Dr. Shashidhar KN attended as Resource Person in the Workshop titled “NABL Accreditation Process” organized by the Central Laboratory, Shridevi Institute of Medical Sciences and Research Hospital

- Dr. Shashidhar K N was recognized as external resource person for teaching-learning activities of I MBBS students of PGIMER, Chandigarh
- Dr. Saideepika R awarded Second prize in Oral Presentation at National Conference on the International Symposium on Translational Research at Vijnana Bhavan, University of Mysore, Mansangangothri, Mysuru
- Letter of appreciation received from Sri Devaraj Urs College of Nursing for being a Guest Speaker for the topic “Social Responsibility and Health” in view of World Bio-Ethics Day conducted on 20-10-2022
  - Appreciation letters received in conducting the School Health Program on Fluorosis from



- SVV high School, Nangli
- Narayan PU College, Kolar
- Govt. Girls High school, Kolar

### Updated Group Photo



### New Faculty Photos



**Ms.P Sharon Rose**  
**Tutor**



**Mr. G.H.Meghanath**  
**Research Assistant**

