

Centre for Balance Disorders

Coordinator: Dr Ajay Bhandarkar / Dr Kailesh Pujary

Evaluation Period: Phase I/Phase II/Phase III/Phase IV

Centre Overview

Centre	
Approval Date	4 th May 2020
Coordinator	Dr Ajay Bhandarkar
Inception Date	15 th May 2020
Term	Two years
Reporting to	Dean, Kasturba Medical College, MAHE, Manipal

Statement

Vision	To become a globally recognized center for balance disorders
Mission	To excel in the management of balance disorders and promote the same by doing quality patient care, training and research
Objectives	<p>To develop a comprehensive multidisciplinary clinic for assessment and management of individuals with balance and vestibular disorders.</p> <p>To foster innovation, and to train / mentor students, researchers and health care providers in the area of balance and vestibular disorders.</p> <p>To conduct short term training courses and workshops.</p> <p>To develop e-health platform for awareness, assessment and self-help modules.</p> <p>To foster evidence based practices, best practices and multi-centric studies.</p>

Members and Stakeholders

Team Members:

Mentors :

- Dr Kailesh Pujary

Members :

- Dr John Solomon (Physiotherapy)
- Dr Krishna (Audiology)

Key Stakeholders Involved

- **Neurology, Neurosurgery**
- **Speech & Hearing**
- **Physiotherapy**
- **Medicine, Geriatrics, Paediatrics**
- **Ophthalmologist**
- **Rehabilitation nurse**
- **Clinical psychologists**
- **Social worker**
- **Biomedical engineering**

Planned Activities

Milestones	Review Period	Planned Activity	Action Taken
Phase 1	15-5-2020 to 14-5-2022	Symposium, guest lectures, thesis, applying for grants, rehabilitation of inpatient and out patient, research work	One symposium and two guest lectures conducted Applied for a grant – not approved Rehabilitation of pts being done Two thesis – one completed, one ongoing
Phase 2			
Phase 3			
Phase 4			

Details of the Process and Outcome

Key Activities	Details of the Process	Measurable Outcome
Certificate Course		
Workshops/ Conference	Symposium conducted on 16-10-2020	
Research Grants Applied	Grant applied for research and rehabilitation in 2020	Not approved
Research Publications		
Collaborations	Henri Traboulsi, Paediatric balance disorders, USA	One guest lecture conducted
Consultancy/ Revenue	On daily basis through ENT dept – pts with balance disorders (tests and rehabilitation done)	Revenue for the ENT dept, KH, Manipal; from patient consultation, procedures

Final Review

Target	Results	Review
Phase 1	Symposium and guest lectures conducted Research grant applied but not approved Thesis (research work) ongoing Outpatient and inpatient services – for balance disorders has increased	
Phase 2		
Phase 3		
Phase 4		

Guest lecture

Dr Aishwarya Anand

1. Pearls in the management of BPPV
2. How to rule in/out stroke in 10 mins.

On Microsoft teams 6:30 – 7:30 pm

15th May 2021



Additional Information

Photographs

Publication list:

News paper articles:

Grants:

Collaborating institutes & Centers: MCV ENT hospital, Pollachi

Any other relevant information

Center For Excellence In Inborn Errors of Metabolism(CE-IEM)

Coordinator

Dr Leslie Edward Simon Lewis

Professor and Head Paediatrics

Kasturba Medical College, Manipal

Manipal Academy of Higher Education

Evaluation Period: Phase I/Phase II/Phase III/Phase IV

Centre Overview

Centre	Center For Excellence In Inborn Errors of Metabolism (CE-IEM)
Approval Date	1 st January 2016
Coordinator	Dr Leslie Edward Simon Lewis
Inception Date	21 st December 2015
Term	3 years
Reporting to	Dean Kasturba Medical College, Manipal

Statement	
Vision	Development of state of art metabolic lab to detect Inborn Errors of Metabolism, Adult metabolic disorders, Monitoring drug concentration and Toxicology estimations
Mission	Development and establishment of routine and high-risk newborn screening in the Udupi district, Decrease infant mortality and morbidity. Extending the facility to neighboring districts, capacity building in the field of newborn screening.
Objectives	<ol style="list-style-type: none">1) Establishment of newborn screening at MAHE constituent Hospitals and extend the facility to the government sector Udupi dist.2) Document the incidence of IEM in the Udupi district and develop a geography-specific reference range of Biomarkers.3) Extending cost-effective newborn screening to neighboring districts and pan Karnataka.4) Create awareness, establish networks, train IEM experts, support research and execute IEM projects5) Provide genetic workup counselling for the parents of children suffering from IEM disorders6) High-end toxicology screening and drug level monitoring

Members and Stakeholders

Team Members:

Mentors : Dr Leslie Edward Simon Lewis

Members :

- Dr. Krishnananda Prabhu RV
- Dr. Anibh Das
- Dr. Anil B Jalan
- Dr. Varashree B.S
- Dr. Revathi P Shenoy
- Dr. Sudheer Moorkoth
- Dr. Girisha K.M.
- Dr. Dhanya Lakshmi
- Dr Koushik H
- Dr.Prajna P Shetty
- Mr. Y S Phaneendra M
- Ms. Arya Raveendran

Key Stakeholders Involved

- MAHE constituent Hospitals
- Government
- Clinicians
- Parents
- Child caregivers

Planned Activities

Milestones	Review Period	Planned Activity	Action Taken
Phase 1	1-6 Months	<ul style="list-style-type: none"> Procurement of GCMS instrument. Providing GCMS Training for Students and Technicians Indo German Metabolic Meet (IGMM) 2021 	<ul style="list-style-type: none"> CE IEM Awarded for the DBT FIST 2020 IGMM 2022 will be conducted with collaboration with Hannover Medical School Germany
Phase 2	7-12 Months	<ul style="list-style-type: none"> Utilization of GCMS in Newborn Screening Panel Standardisation of confirmatory tests using GCMS 	
Phase 3	13-18 Months	<ul style="list-style-type: none"> To develop website, NBS guidelines, questionnaires, health communication brochures, leaflets 	<ul style="list-style-type: none"> Web URL: ceiem-manipal.com Guidelines and leaflets developed in consultation with experts in the field.
Phase 4	19-24 Months	<ul style="list-style-type: none"> Extending Newborn screening, Conduct conference, Initiate awareness and capacity building activities, Standardisation confirmatory tests using GCMS 	

Details of the Process and Outcome



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Key Activities	Details of the Process	Measurable Outcome
Certificate Course	Training Modules And Workshop On NBS And IEM Screening And Diagnosis.	
Workshops/ Conference	Indo- German metabolic meet 2021, awareness program(8) on new-born screening and inborn errors of metabolism, training program(4) on NBS specimen collection	13
Research Grants Applied	ICMR-BMBF, Grand challenges, Canada, VGST(Karnataka) , DBT-GLUE grant, Neutrica SERB, AICTE-MODROBS, Philips-India , DBT women and child Health programme ,Wellcome trust DBT India Alliance, SERB CRG, DST-FIST 2020	4
Research Publications	14 research paper publications, 20 (poster presentation), 3 (oral presentations)	37
Collaborations	Manipal College of Pharmaceutical Sciences, Department of Paediatrics (Kasturba Hospital), Dept of Biochemistry (KMC, Manipal), Dr TMA Pai Rotary Hospital, Karkala, Dr. TMA Pai Hospital Udupi, Arogya Raksha DH Udupi, Arogya Raksha GH Karkala and Kundapura, Phillips India, Hannover Medical School, Germany ,Prasanna school of Public Health, MAHE	10
Consultancy/ Revenue	Through the NBS programme and Indo German Metabolic Meet-2021 the Centre has generated a revenue of 14,25,000.00 in the year 2021-2022	

Final Review

Target	Results	Review
Phase 1 July 2020-December 2020	<ul style="list-style-type: none">693 Babies were screened	<ul style="list-style-type: none">6 TSH,18 CAH,9 PKU,4 BIO,12,GAL ,2 MSUD, 1 G6PD detected Positive and Recommended for the confirmatory test
Phase 2 Jan 2021- June 2021	<ul style="list-style-type: none">444 Babies were screenedMs Prajna P Shetty awarded with PhD degree	<ul style="list-style-type: none">12 CAH,2 BIO, 4 GAL , 2 G6PD detected Positive and Recommended for the confirmatory test
Phase 3 July 2021- December 2021	<ul style="list-style-type: none">1300 Babies Were ScreenedIGMM 2021	<ul style="list-style-type: none">4 TSH,10 CAH,1 PKU,3 BIO, 2GAL , 3 G6PD detected Positive and Recommended for the confirmatory testIGMM 2021 Conducted Online Mode
Phase 4 Jan 2022-April 2022	<ul style="list-style-type: none">1200 Babies Were ScreenedCME/Workshop	<ul style="list-style-type: none">5 TSH, 3 CAH,1 BIO, 2 GAL, detected Positive and Recommended for the confirmatory testCE-IEM Organized talk on Newborn Screening For IEM

Additional Information

Photographs



Publication list

1. Raveendran, A.; Chacko, T.J.; Prabhu, P.; Varma, R.; Lewis, L.E.; Rao, P.; Shetty, P.P.; Mallimoggala, Y.S.P.; Hedge, A.; Nayak, D.M.; et al. Need and Viability of Newborn Screening Programme in India: Report from a Pilot Study. *Int. J. Neonatal Screen.* 2022, 8, 26. <https://doi.org/10.3390/ijns8020026>
2. Shetty PP, Naik B, Lewis L, Nalini K, Rao P. Reverse phase-high performance liquid chromatography: An alternative to expensive tandem mass spectrometry screening for amino acid profiling in dried blood spot in resource constrained diagnostic settings. *Journal of Krishna Institute of Medical Sciences University.* 2021;10(3):29-39.
3. B. S. V, Poduri S, Lewis LE, Shenoy Belle V. Novel urinary markers: taurine, dopamine and L-fucose levels in predicting neonatal seizures. *Biomedicine [Internet].* 2021Dec.31 41(4):732-6.
4. Shetty, PP, Thriveni, Nalini K. Inhibition assay of ala dehydratase by succinyl acetone in tyrosinemia type 1: a rapid ht1 screening technique for resource constrained diagnostic setups. *Malaysian Journal of Biochemistry and Molecular*

5. Shetty PP, Biswas M, Belle VS, Lewis LES, Moorkoth S, Rao P, Nalini. K. Maternal Awareness and Perception in Successful Implementation of Neonatal Screening Program. Indian Journal of Public Health Research and Development. 2020; 11(8), 90-96.
6. Mathew EM, Moorkoth S, Lewis L, Rao P. Biomarker profiling of vitamin responsive seizures: a potential tool to detect pediatric seizures of unknown aetiology. Bioanalysis. 2020 Jan 1;12(2):111-124. <https://doi.org/10.4155/bio-2019-0121>
7. Shetty PP, Nagendra K, Nalini K, Rao P, Bhaskaranand N, Belle VS. Amino Acid Profile and Lactate Pyruvate Ratio: Potential Adjunct Markers for Differentiating Inborn Errors of Metabolism. Indian J Clin Biochem. 2020 Oct;35(4):430-435. doi: 10.1007/s12291-019-00840-1. Epub 2019 Jul 5. PMID: 33013012; PMCID: PMC7502630.
8. Vemugadda, H., Shetty, PP., Biswas, M., Shenoy, R. P., & Nalini, K. Erythrocytes arginase activity and serum nitric oxide in diabetes mellitus. Malaysian Journal of Biochemistry and Molecular Biology. 2019; 22(3), 33-37.
9. Mathew, E. M., Moorkoth, S., Rane, P. D., Lewis, L., & Rao, P. (2019). Cost-Effective HPLC-UV Method for Quantification of Vitamin D2 and D3 in Dried Blood Spot: A Potential Adjunct to Newborn Screening for Prophylaxis of Intractable Paediatric Seizures. Chemical & pharmaceutical bulletin, 67(2), 88-95. <https://doi.org/10.1248/cpb.c18-00542>
10. Mathew, E. M., Rao, P., Shetty, R., Lewis, L., & Moorkoth, S. (2019). Analytical validation strategies for dbs biomarker assays. Research Journal of Pharmacy and Technology, 12(8), 4031-4038. <https://doi.org/10.5958/0974-360X.2019.00695.4>
11. Mathew, E. M., Sakore, P., Lewis, L., Manokaran, K., Rao, P., & Moorkoth, S. (2019). Development and validation of a dried blood spot test for thiamine deficiency among infants by HPLC–fluorimetry. Biomedical Chromatography, 33(11), [e4668]. <https://doi.org/10.1002/bmc.4668>

12. Samreen M Sheik, Shetty PP. et.al. Accidental diagnosis of Alkaptonuria in a suspected case of Mucopolysaccharidosis. Sch. J. Med. Case Rep., Apr 2018; 6(4): 252-255
13. Pawar C, Rao P, Lewis L, Moorkoth S. Development of a GC-MS bio-analytical method to detect organic acidemia in neonatal/ paediatric urine sample. International Journal of Pharmacy and Technology. 2016 Jun 1;8(2):13110-13124.
14. Dabke, Partha and Rao, Pragna (2012) Diagnostic Challenges in Mitochondrial Disease. International Journal of Health and Rehabilitation Sciences, 1 (1). pp. 25-31

'కామినేని'లో జీఎంఎంఎం సదస్సు ప్రారంభం

నార్కట్పల్లి : నార్కట్పల్లిలోని కామినేని వైద్య కళాశాలలో జన్యు, పరిమాణం వ్యాధి నిర్ధారక పరీక్షలు, సమస్యలపై మూడు రోజుల పాటు నిర్వహించే జీఎంఎంఎం (జెనెటిక్ మల్టిక్యూల్ డైనసిస్ మోడ్రన్ మెడిసిన్) అంతర్జాతీయ సదస్సును శుక్రవారం ప్రారంభించారు. ఈ సదస్సులో భాగంగా మొదటి రోజు వర్క్ షాప్ నిర్వహించారు. ఈ వర్క్ షాప్ ను కనూబ మెడికల్ కళాశాల మనిపాల్ అసిస్టెంట్ టీమ్ బయోకె



పరీక్షలు నిర్వహిస్తున్న వైద్యులు

మిస్ట్రీ డాక్టర్ ప్రజ్ఞారావు పాల్గొని వివిధ అంశాలపై వైద్య విద్యార్థులకు అవగాహన కల్పించారు. అనంతరం క్యాన్సర్ వ్యాధిపై జన్యు, పరమాణువు స్కానింగ్ పరీక్షలు చేసే విధానాన్ని తెలియజేశారు. నవజాతి శిశువులకు జన్యుపరమైన వ్యాధిగ్రస్తులపై చిన్న పిల్లలకు స్కానింగ్ చేయు విధానాలను తెలిపారు. ఇలాంటి పరీక్షలను కర్ణాటక ప్రభుత్వం ప్రజలకు అందుబాటులో ఉండే విధంగా చేస్తున్నట్లు తెలిపారు. శిశుమరణాలు తగ్గించేందుకు కీలకమైన పరీక్షలు అందుబాటులో ఉండే విధంగా మెడికల్ కళాశాల విద్యార్థులకు తెలియజేసేందుకు ఇలాంటి సదస్సులు నిర్వహిస్తున్నట్లు తెలిపారు. 17, 18 తేదీల్లో నిర్వహించే ఈ కాన్ఫరెన్స్ కు

అంతర్జాతీయ డాక్టర్లు, ప్రొఫెసర్లు హాజరుకానున్నట్లు తెలిపారు. ఈ కాన్ఫరెన్స్ ప్రారంభోత్సవానికి శనివారం డాక్టర్ గారేందర్ కుమార్ యూకే విచ్చేస్తున్నట్లు తెలిపారు. ముఖ్యంగా క్యాన్సర్ సంబంధించిన లియోన టల్, లియాసిస్, జెనిటిక్, యాంటి నటల్, గైనకాలజి, న్యూరోలజీ సంబంధించిన లోపాలపై దృష్టి సారించనున్నట్లు తెలిపారు. కాన్ఫరెన్స్ లో అంతర్జాతీయ, జాతీయ మేధావులు దాదాపు 300 మంది పాల్గొననున్నట్లు తెలిపారు. ఈ కార్యక్రమంలో డాక్టర్ శోభారాణి, సునిత, చిన్నపరెడ్డి, జిఎం శౌరీరెడ్డి, డిజీఎం శ్రీధర్ రెడ్డి తదితరులు ఉన్నారు.



ಉದಯವಾ ಆರೋಗ್ಯ



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ಮಣಿಪಾಲ

ನಿಮ್ಮ ಆರೋಗ್ಯಕ್ಕೆ ಉದಯವಾಜೆ ಕೊಡುಗೆ



ಅರಿವೇ ಗುರು

ಡಾ| ಲೆಸ್ಲಿ ಎಡರ್ಡ್ ಲೂಯಿಸ್ ಪ್ಯೂರ್ಚಸ್ ಮತ್ತು ಹೆಡ್, ಕೊಆರ್ಡಿನೇಟರ್, ಸೆಂಟರ್ ಫಾರ್ ಎಕ್ಸಲೆನ್ಸ್ ಇನ್ ನ್ಯೂಟ್ರಿಷನ್ ಎರರ್ಡ್ ಆಫ್ ಮೆಟಿಟಾಸಿಂಗ್, ಪಿಡಿಯಾಟ್ರಿಕ್ಸ್, ವಿಭಾಗ, ಕೆಎಂಪಿ, ಮಾಹೆ, ಮಣಿಪಾಲ

ವೈ. ಎಸ್. ಫೇಲೋಂವ್ ಎಂ. ರಿಸರ್ಚ್ ಸ್ಕಾಲರ್, ಪಿಡಿಯಾಟ್ರಿಕ್ಸ್ ವಿಭಾಗ, ಕೆಎಂಪಿ, ಮಾಹೆ, ಮಣಿಪಾಲ

ಯಾವುದೇ ಒಂದು ಕಾಯಿಲೆಯು 25,000 ಮಂದಿಯಲ್ಲಿ ಒಬ್ಬರನ್ನು ಬಾಧಿಸಿದಾಗ ಅದನ್ನು ಅಪರೂಪದ ಕಾಯಿಲೆ ಎಂದು ಕರೆಯಲಾಗುತ್ತದೆ. ಏಕೆ ಆರೋಗ್ಯ ಸಂಸ್ಥೆ (ಜೆಪಿಎಚ್) ಒಂದು ಅಪರೂಪದ ಕಾಯಿಲೆಯನ್ನು 1,000 ಮಂದಿಯಲ್ಲಿ ಒಬ್ಬರನ್ನು ಅಥವಾ ಅದಕ್ಕಿಂತಲೂ ಕಡಿಮೆ ಮಂದಿಯನ್ನು ಬಾಧಿಸುವ, ಜೀವಮಾನ ವರ್ಯಂತ ನೆಲೆಬಿಡುವಂತೆ ಉಂಟುಮಾಡುವ ಕಾಯಿಲೆ ಎಂಬುದಾಗಿ ವ್ಯಾಖ್ಯಾನಿಸುತ್ತದೆ. ಆದರೆ ಏಕೆ ದೇಶಗಳು ಈ ವಿಚಾರದಲ್ಲಿ ತಮ್ಮ ಆಗತ್ಯಗಳಿಗೆ ತಕ್ಕದಾಗಿ ಮತ್ತು ಜನಸಮುದಾಯ, ಆರೋಗ್ಯ ಸೇವಾ ವ್ಯವಸ್ಥೆ ಸಂವಹನಗಳು ಅಧಾರದಲ್ಲಿ ತಮ್ಮದೇ ಆದ ವ್ಯಾಖ್ಯಾನವನ್ನು ಹೊಂದಿವೆ. ಆದರೆ ಭಾರತದಲ್ಲಿ ಅಪರೂಪದ ಕಾಯಿಲೆಗಳ ಉಪಚಿಕಿ ಕಡಿಮೆ ಎಂಬುದಾಗಿ ಅಧಿಕೃತ ಸಂಖ್ಯೆ ರೋಗಶಾಸ್ತ್ರೀಯ ಅಂಶಗಳು ಹೇಳುತ್ತವೆ.



ನವಜಾತ ಶಿಶುಗಳ ಆರೋಗ್ಯ

ನಿವೃತ್ತ ತಿಳಿದಿರಬೇಕಾದ್ದೇನು?

ಮೆಟಾಬಾಲಿಸಂ) ಅಪರೂಪದ ಕಾಯಿಲೆಗಳ ಒಂದು ಸಮುಚ್ಚಯವಾಗಿದ್ದು ನವಜಾತ ಶಿಶುಗಳಲ್ಲಿ ಮತ್ತು ಶಿಶುಗಳಲ್ಲಿ ಕಂಡುಬರುತ್ತದೆ. ಚಯಾವಚಯ ಕ್ರಿಯೆಯ ಅಂತರ್ಗತ ಪ್ರಮಾದಗಳು ಕಿಣ್ವಗಳ ಚಟುವಟಿಕೆಗಳನ್ನು ಒಳಗೊಂಡ ಜನ್ಯಜಾತ ಕೊಂದರಿಗಳ ವಂಶವಾಹಿ ಕಾಯಿಲೆಗಳ ಸಮೂಹ. ಇವುಗಳಲ್ಲಿ ಬಹುತೇಕ ಕೊಂದರಿಗಳು ಮೂಲಕ ದ್ರವ್ಯ (ಸೆಲ್ ಸ್ಟ್ರಕ್ಚರ್) ಗಳನ್ನು ಇತರ ಉತ್ಪನ್ನಗಳಾಗಿ ಪರಿವರ್ತಿಸುವ ಕಿಣ್ವಗಳ ಕೋಡ್ ಗಳನ್ನು ಹೊಂದಿರುವ ಏಕ ವಂಶವಾಹಿಗಳನ್ನು ಬಾಧಿಸುತ್ತವೆ. ಬಹುತೇಕ ಸಮಸ್ಯೆಗಳಲ್ಲಿ ಎಚ್ಕಾಲಿ ಅಂಶಗಳು ಸಂಗ್ರಹಗೊಳ್ಳುವುದು ಅಥವಾ ಸಹಜ ಚಟುವಟಿಕೆಗಳಿಗೆ ಅಡ್ಡಿಯಾಗುವುದು ಅಥವಾ ಅವಶ್ಯಕ ಸಂಯುಕ್ತಗಳನ್ನು ಸಂಯೋಜನೆಗೊಳಿಸುವಲ್ಲಿ ಕುಗ್ಗಿದ ಚಟುವಟಿಕೆಯಿಂದ ಕೊಂದರಿ ಉಂಟಾಗುತ್ತದೆ. ಚಯಾವಚಯ ಕ್ರಿಯೆಗಳ ಅಂತರ್ಗತ ಪ್ರಮಾದಗಳು ಜನ್ಯಜಾತ ಚಯಾವಚಯ ಕ್ರಿಯೆಯ ಸಮಸ್ಯೆಗಳು ಅಥವಾ



ವಂಶವಾರಂಭಯ ಚಯಾವಚಯ ಸಮಸ್ಯೆಗಳು ಎಂದು ಸಾಮಾನ್ಯವಾಗಿ ಕರೆಯಲಾಗುತ್ತದೆ. ಇದುವರೆಗೆ ಗೊತ್ತಿರುವಂತೆ 500ಕ್ಕೂ ಅಧಿಕ ವಂಶವಾರಂಭಯ ಚಯಾವಚಯ ಕಾಯಿಲೆಗಳಿವೆ. ಸಾಂಪ್ರದಾಯಿಕವಾಗಿ ವಂಶವಾಹಿ ಚಯಾವಚಯ ಕಾಯಿಲೆಗಳನ್ನು ಕಾರ್ಬೋಹೈಡ್ರೇಟ್ ಚಯಾವಚಯ ಕ್ರಿಯೆಯ ಸಮಸ್ಯೆಗಳು, ಸಾವಯವ ಅಮ್ಲ ಚಯಾವಚಯ ಸಮಸ್ಯೆಗಳು ಅಥವಾ ಲೈಸೋಸೋಮಲ್ ಡಿಸ್ಫಾನ್ಸಿ ಕಾಯಿಲೆಗಳು ಎಂದು ವರ್ಗೀಕರಿಸಲಾಗುತ್ತದೆ. ಜನರಲ್ಲಿ ತಿಳಿದುಬಂದ ಕೊರತೆ (ಆರೋಗ್ಯ ಸೇವಾ ವ್ಯವಸ್ಥೆಗಾರರ ಸಹಿತ), ಆರೋಗ್ಯ ಸೇವಾ ಸೌಲಭ್ಯಗಳ ಕೊರತೆ ಹಾಗೂ ಆಸಮರ್ಪಕ ತಪಾಸಣೆ ಮತ್ತು ರೋಗಪತ್ತಿ ಸೌಕರ್ಯಗಳ ಸಹಿತ ಅನೇಕ ಅಂಶಗಳಿಂದಾಗಿ ಈ ಅಪರೂಪದ ಕಾಯಿಲೆಗಳನ್ನು ಬೇಗನೆ ಪತ್ತೆ ಮಾಡುವುದು ಒಂದು ಸವಾಲಾಗಿರುತ್ತದೆ. ಆದ್ದರಿಂದ ಈ ವಂಶವಾಹಿ ಚಯಾವಚಯ ಸಮಸ್ಯೆಗಳು ತುಂಬಾ ಮುಂದುವರಿದ ಹಂತಗಳಲ್ಲಿ ಪತ್ತೆಯಾಗುತ್ತವೆ (ಮಾರಣಾಂತಿಕವಾದ ಅಥವಾ ಸರಿಪಡಿಸಲಾಗದ ಹಾನಿ ಉಂಟಾಗಿರುವಂತಹ ಹಂತ) ಅಥವಾ ಪತ್ತೆಯಾಗದ ಉಳಿದು ಎವರೆಕೆ ಇಲ್ಲದ ನವಜಾತ ಶಿಶು/ ಶಿಶು ಮರಣ ಉಂಟಾಗುತ್ತದೆ ಅಥವಾ ಶಾರೀರಿಕ ಹಾನಿಯನ್ನು ಉಂಟು ಮಾಡುತ್ತವೆ.

- ಲಕ್ಷಣಗಳು**
- ವಿವಿಧೇ ಇಲ್ಲದ ತೂಕನಷ್ಟ ಅಥವಾ ತೂಕ ಗಳಿಸಿಕೊಳ್ಳದ ಇರುವುದು ಮತ್ತು ಶಿಶುಗಳು ಮತ್ತು ಮಕ್ಕಳು ನಿರೀಕ್ಷಿತ ಬೆಳವಣಿಗೆ ಕಾಣದ ಇರುವುದು.
 - ದೇಹವು ಮತ್ತು ಶಕ್ತಿಯ ಕೊರತೆ
 - ಹೈಪರ್ ಗ್ಲೋಮಿಯೋ ಅಥವಾ ರಕ್ತದಲ್ಲಿ ಸಕ್ಕರೆಯ ಅಂತ ಕಡಿಮೆ ಇರುವುದು
 - ಸ್ಪಷ್ಟಜಾನ, ಆಹಾರ ಸೇವನೆ ಸರಿಯಾಗಿಲ್ಲದಿರುವುದು
 - ಹೊಟ್ಟೆಯ ಸಮಸ್ಯೆಗಳು ಅಥವಾ ವಾಂತಿ
 - ರಕ್ತದಲ್ಲಿ ಅಮೋನಿಯಾ ಅಥವಾ ಆಮ್ಲ ಇರುವುದು
 - ವಿಶ್ವಜನಿಕಾಂಗದ ಚಟುವಟಿಕೆ ಸರಿಯಾಗಿಲ್ಲದಿರುವುದು
 - ಶಿಶುಗಳು ಮತ್ತು ಮಕ್ಕಳಲ್ಲಿ ಬೆಳವಣಿಗೆ ನಿಧಾನವಾಗುವುದು, ಬುದ್ಧಿಮಾಂದ್ಯ
 - ಸೇಳವು ಇವುಗಳಲ್ಲಿ ಕೆಲವು ಲಕ್ಷಣಗಳನ್ನು ನವಜಾತ ಶಿಶುಗಳ ಪರೀಕ್ಷೆಯ ವೇಕೆ ಪತ್ತೆ ಮಾಡಬಹುದಾಗಿದೆ.

ಈ ಲೇಖನದಲ್ಲಿರುವ ವಿಷಯಗಳ ಬಗ್ಗೆ ಹೆಚ್ಚಿನ ಮಾಹಿತಿಗಳಿಗಾಗಿ ಸಂರ್ಪಿಸಿ: **ಮುಖ್ಯಸ್ಥರು,** ಪಿಡಿಯಾಟ್ರಿಕ್ಸ್ ವಿಭಾಗ, ಕೆಎಂಪಿ, ಮಣಿಪಾಲ

ಮುಂದಿನ ವಾರಕ್ಕೆ

ನವಜಾತ ಶಿಶುಗಳ ಆರೋಗ್ಯ: ನಿವೃತ್ತ ತಿಳಿದಿರಬೇಕಾದ್ದೇನು?

ಕಳೆದ ವಾರದಿಂದ

ನವಜಾತ ಶಿಶು ಪರಿಣಿ ಎಂದರೇನು?

ನವಜಾತ ಶಿಶುಗಳಲ್ಲಿ ಜನ್ಯಜಾತವಾಗಿ ಇರುವ ಚಯಾವಚಯ/ ವಂಶವಾಹಿ ಸಮಸ್ಯೆಗಳನ್ನು ಪತ್ತೆಹಚ್ಚಲು ಈ ಮಾದರಿಯ ರಕ್ತಪರೀಕ್ಷೆಗಳನ್ನು ನಡೆಸಲಾಗುತ್ತದೆ. ನವಜಾತ ಶಿಶು ತಪಾಸಣೆಯ ನಿರ್ದಿಷ್ಟ ಧನಿಗೋಳ ಪದೋದರದಲ್ಲಿ ಸಾಮಾನ್ಯವಾಗಿರುವ ಅಥವಾ ಹೆಚ್ಚು ಕಾಣಿಸಿಕೊಳ್ಳುತ್ತಿರುವ ಚಯಾವಚಯ/ ವಂಶವಾಹಿ ಸಮಸ್ಯೆಗಳನ್ನು ಪತ್ತೆಹಚ್ಚುವ ಪರೀಕ್ಷೆಗಳ ಗುಚ್ಛವನ್ನು ಒಳಗೊಂಡಿರುತ್ತದೆ. ಲಕ್ಷಣಾಧಾರಿತವಾಗಿ ಅಥವಾ ವೈದ್ಯಕೀಯವಾಗಿ ಪತ್ತೆಯಾದಲ್ಲಿ ಧನಿಗೋಳವಾಗಿ ಅಪರೂಪಕ್ಕೆ ಗುರುತಿಸಲ್ಪಡುವ ಇತರ ಅನಾರೋಗ್ಯಗಳಿಗಾಗಿಯೂ ಪರೀಕ್ಷೆಗಳನ್ನು ನಿರ್ದಿಷ್ಟ ಮುಗಿಸಿದ ಆಗಸ್ಟ್‌ಗಳಿಗೆ ಅನುಸಾರವಾಗಿ ನಡೆಸಲಾಗುತ್ತದೆ. ಆದರೆ ರೋಗಗಳ ನವಜಾತ ಶಿಶು ಪರೀಕ್ಷೆಗಳು ಈ ಅಂಶವೇ ಅಪರೂಪವಾಗಿ ಗುರುತಿಸಲ್ಪಡುವ ಕಾಯಿಲೆಗಳ ಸಮೂಹದ ಪರೀಕ್ಷೆಗಳನ್ನು ಒಳಗೊಳ್ಳುವುದಿಲ್ಲ.

ನವಜಾತ ಶಿಶು ಪರಿಣಿಯನ್ನು ಯಾವಕೆ ನಡೆಸಲೇಬೇಕು?

- ಲಕ್ಷಣಗಳು ಕಾಣಿಸಿಕೊಳ್ಳುವುದಕ್ಕಿಂತ ಮುನ್ನವೇ ಅನಾರೋಗ್ಯಗಳನ್ನು



ನವಜಾತ ಶಿಶು ಪರಿಣಿಯನ್ನು ಹೇಗೆ ನಡೆಸಲಾಗುತ್ತದೆ?

- ವಿಶೇಷ ವೇರನ್ ಒಂದರಲ್ಲಿ ನವಜಾತ ಶಿಶುವಿನ ಹಿಮ್ಮಡಿಿಯಿಂದ ತೆಗೆಯಲಾದ ಕೆಲವು ಪರಿಣಿ ರಕ್ತದಿಂದ.



Healthy new born is the best promise for the future



ಪತ್ತೆ ಮಾಡಲು.

- ಬೇಗ ಚಿಕ್ಕಿ ನೀಡಿ ದೀರ್ಘಕಾಲದಲ್ಲಿ ಉಂಟಾಗಬಲ್ಲ ಸರಿಪಡಿಸಲಾದ ನರಹಾನಿಯ ಮತ್ತು ಬೆಳವಣಿಗೆ ಸಂಬಂಧಿಸಿ ಹಾನಿಗಳನ್ನು ತಪ್ಪಿಸಲು. ಕೆನ್ಸಲ್ಯೂಸ್ ಆಸಿಡ್, ಮಣಿಪಾಲದಲ್ಲಿ ನವಜಾತ ಶಿಶು ಪರಿಣಿ ಪ್ಯಾನೆಲ್ ಮಣಿಪಾಲದ ಕೆನ್ಸಲ್ಯೂಸ್ ಆಸಿಡ್ ನವಜಾತ ಶಿಶು ವಿಭಾಗದ ಪರಿಣಿ ತಂಡವು ಕರ್ನಾಟಕ ಪ್ರದೇಶದಲ್ಲಿ ಸಾಮಾನ್ಯವಾಗಿ ಪತ್ತೆಯಾಗುವ ಚಯಾವಚಯ (ಜೀರ್ಣಕ್ರಿಯೆಗೆ ಸಂಬಂಧಿಸಿದ) ಪರೀಕ್ಷೆಗಳನ್ನು ನವಜಾತ ಶಿಶುಗಳಿಗೆ ನಡೆಸುತ್ತದೆ. ಇವುಗಳಲ್ಲಿ ಜನ್ಯಜಾತವಾಗಿ ಕಂಡುಬರುವ ತೀವ್ರತರದ ಗಳಿಗಿಂತ ರೋಗ ಲಕ್ಷಣಗಳು ಅಥವಾ ಹೈಪೋಕ್ಯಾಲೋಸಿಂಗ್, ಆಡಿನಿನ್ ಗ್ಲೂಕೋಸಿಡ್ ಕಂಡುಬರುವ ಸಮಸ್ಯೆಗಳು (ಆಡಿನಿನ್ ಹೈಪರ್ ಪ್ಯಾನಿಯ-2, ಎ. ಎ. ಎಲ್), ಕಾರ್ಬೋ ಕಾಯಿಲೆ ಅಥವಾ ಜಾಂಡಿಸ್ ಲಕ್ಷಣಗಳು (ಗ್ಲುಕೋಸ್ ಡೀ - ಹೈಪೋಜೀನಿನ್ -ಜಿ -6 ಡಿ), ವಿಶ್ವಜನಿಕಾಂಗದ ಅಸಮರ್ಪಕ ಕಾರ್ಯವೈಖರಿಯಿಂದ ಕಂಡುಬರುವ ಗ್ಯಾಲಕ್ಟೋಸಿಯೋಸಿಸ್, ಅಂಶ ಅಪರೂಪ ಅಂದರೆ ಲಕ್ಷಣ ಒಂದು ಶಿಶುವಿನಲ್ಲಿ ಪ್ರೋಟೀನ್ ಕೊರತೆಯಿಂದ ಕಂಡುಬರುವ ಫೋನಿಲೈಪಿಟೋಸಿಯೋಸಿಸ್, ವಿಟಿಮಿನ್ ಕೊರತೆಯಿಂದ ಕಂಡುಬರುವ ಬಯೋಟಿನ್‌ಡೀಫೆ ಕಾಯಿಲೆ ಲಕ್ಷಣಗಳು ಮತ್ತು ಆಮೈನೋ ಆಮ್ಲಗಳ ಅಸಮರ್ಪಕತೆಯಿಂದ ಉಂಟಾಗುವ ಮೇಫ್, ಸಿರ್ಟ್ ಯೂರಿನ್ ಡಿಸೋ (ಎಂ. ಎಂ. ಡಿ) ಅಥವಾ ಕಾಯಿಲೆ ಲಕ್ಷಣಗಳು ಸಾಮಾನ್ಯವಾಗಿವೆ.

ನವಜಾತ ಶಿಶು ಪರಿಣಿಯ ವರದಿ ಪಾಸಿಟಿವ್ ಆಗಿದ್ದಲ್ಲಿ ಏನು ಮಾಡಲಾಗುತ್ತದೆ?

ನವಜಾತ ಶಿಶು ಪರಿಣಿ ನಡೆಸಲಾದ ಯಾವುದೇ ಅಪರೂಪದ ಕಾಯಿಲೆಗೆ ಶಿಶು ಪಾಸಿಟಿವ್ ವರದಿ ಬಂದಿದ್ದಲ್ಲಿ ಹಾನಿಯನ್ನು ತಡೆಯಲು ತಕ್ಷಣ ಮುನ್ನೆಚ್ಚರಿಕೆಯ ಕ್ರಮಗಳನ್ನು ಕೈಗೊಳ್ಳಲಾಗುತ್ತದೆ. ಇದಲ್ಲದೆ ರೋಗಪತ್ತಿಯನ್ನು ಖಚಿತಪಡಿಸಿಕೊಳ್ಳಲು ಹೆಚ್ಚುವರಿ ಪರಿಣಿ ನಡೆಸಲಾಗುತ್ತದೆ.

ಈ ಚಯಾವಚಯ ಕ್ರಿಯೆಯ ಸಮಸ್ಯೆಗಳಿಗೆ ಚಿಕಿತ್ಸೆಯ ಆಯ್ಕೆಗಳೇನು?

- ಚಯಾವಚಯ ಕ್ರಿಯೆಯ ಸಮಸ್ಯೆಗಳಿಗೆ ಚಿಕಿತ್ಸೆಯ ನಿರ್ದಿಷ್ಟ ರೋಗಶಿಕ್ಷಿಯನ್ನು ಅವಲಂಬಿಸಿರುತ್ತದೆ. ಸಾಮಾನ್ಯ ಚಿಕಿತ್ಸೆಗಳು ಈ ಕೆಳಗಿನಂತಿವೆ:
 - ಆಹಾರಾಭ್ಯಾಸ ಮತ್ತು ಜೀವನಶೈಲಿಯಲ್ಲಿ ಬದಲಾವಣೆ: ದೇಹವು ನಿರ್ವಹಿಸಲು ಮತ್ತು ಆರಗಿಸಿಕೊಳ್ಳಲು ಸಾಧ್ಯವಾಗದ ಕೆಲವು ನಿರ್ದಿಷ್ಟ ಆಹಾರಗಳನ್ನು ವರ್ಜಿಸುವುದು.
 - ಔಷಧಿ: ನಿರ್ದಿಷ್ಟ ಲಕ್ಷಣಗಳನ್ನು ನಿಯಂತ್ರಿಸಲು, ಹೆಚ್ಚು ಆರೋಗ್ಯವಾಗಲು ಮತ್ತು ಮಾರಣಾಂತಿಕವಾದ ತುರ್ತುಪರಿಸ್ಥಿತಿಗಳನ್ನು ದೂರ ಮಾಡಲು ಔಷಧಿಗಳನ್ನು ಉಪಯೋಗಿಸಲಾಗುತ್ತದೆ.
 - ಕಿಣ್ವ ಬದಲಾವಣೆ ಚಿಕಿತ್ಸೆ: ಕಿಣ್ವ ಇಲ್ಲದಿರುವ ಅಥವಾ ಕಡಿಮೆ ಇರುವ ಸಮಸ್ಯೆಯನ್ನು ಪರಿಹರಿಸಲು ಇಂಟೆಕ್ಸ್ಟ್ ನೀಡುವುದರಿಂದ ಕೆಲವು ನಿರ್ದಿಷ್ಟ ಸಮಸ್ಯೆಗಳಿಗೆ ಚಿಕಿತ್ಸೆ ನೀಡಲು ಸಹಾಯವಾಗುತ್ತದೆ. ಆರೋಗ್ಯಯುತ ಶಿಶುವಿನ ಪ್ರತಿ

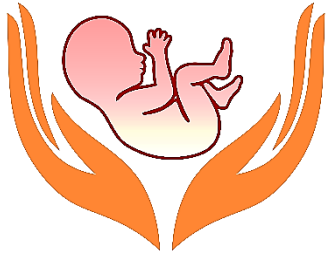
ಹಾಯ್ದಂದೆಯ ಕನಸಾಗಿರುತ್ತದೆ ಮತ್ತು ನಮ್ಮ ಭವಿಷ್ಯದ ಆಧಾರ ಸ್ಥಂಭವಾಗಿರುತ್ತದೆ. ಚಯಾವಚಯ ಕ್ರಿಯೆಯ ಅಪರೂಪವಾದ ಕಾಯಿಲೆಗಳ ಪರಿಣಿಯನ್ನು ನಡೆಸುವ ಮೂಲಕ ಪ್ರತೀ ನವಜಾತ ಶಿಶುವಿನ ಸಮಗ್ರ ಸೌಖ್ಯ ಮತ್ತು ಕ್ರಮವನ್ನು ಖಚಿತಪಡಿಸಿ ಕೊಳ್ಳುವುದು ಅವರ ಆರೋಗ್ಯವನ್ನು ಭದ್ರಪಡಿಸಿಕೊಳ್ಳುವಲ್ಲಿ ನಿರ್ಣಾಯಕ ವಾಗಿದೆ. ಮಾತ್ರವಲ್ಲದೆ ಅವರಿಗೆ ಯಾವುದೇ ಏಧ ವಾದ ಮಂದಿ ಬಾಧಿಸದಂತೆ ಆಸ್ಪತ್ರೆ ಮತ್ತು ಗೃಹ ಮತ್ತು ಜೀವನವನ್ನು ಖಾತರಿಪಡಿಸುವುದಕ್ಕೆ ಮುಖ್ಯ ವಾಗಿರುತ್ತದೆ. ಆದರೆ ಹೆಚ್ಚುವರಿ ಮತ್ತು ಶಿಶುವಿಗೆ ಪ್ರಾಥಮಿಕ ಆರೈಕೆಯನ್ನು ಒದಗಿಸುವವರಲ್ಲಿ ಆರಂಭ ಮಾಡುವುದು, ವೈದ್ಯಕೀಯ ಪರಿಣಿ ಸೌಲಭ್ಯಗಳ ಲಭ್ಯತೆ, ಪರಿಣಿಗಳು ಮತ್ತು ಖಚಿತಪಡಿಸಿಕೊಳ್ಳುವ ಪರಿಣಿಗಳು ಕೈಗೊಳ್ಳುವಂತಿರುವುದರ ಸಹಿತ ಈ ನಿಟ್ಟಿನಲ್ಲಿ ಆಗಬೇಕಾದ್ದು ಇನ್ನೂ ಬಹಳವೆಂದಿ. ಚಿಕಿತ್ಸಾತ್ಮಕ ಕ್ರಮಗಳು, 'ವಿಶೇಷ ಮಕ್ಕಳ' ಬಗ್ಗೆ ಸಮಾಜದಲ್ಲಿರುವ ವಕ್ರದೃಷ್ಟಿಯನ್ನು ಹೋಗಲಾಡಿಸುವುದು, ಚಿಕಿತ್ಸೆಗೊಳಿಸುವುದು ಮತ್ತು ಖಚಿತಪಡಿಸಿಕೊಳ್ಳುವ ಅಭ್ಯಾಸವೂ ಲೋಚನೆ ಆಗತಕ್ಕವಾಗಿದೆ. ಕಳೆದ ಕೆಲವು ದಶಕಗಳಲ್ಲಿ ಆರೋಗ್ಯ ಸೇವಾ ಕ್ಷೇತ್ರದಲ್ಲಿ ಸಾಕಷ್ಟು ಮುನ್ನಡೆ ಸಾಧಿಸಿ ಲಾಗಿದೆ. ಎಲ್ಲ ಛಾಗೀದಾರಿಗಳ ಸಕ್ರಿಯ ಪ್ರಯತ್ನಗಳ ಮೂಲಕ 'ಪ್ರತೀ ನವಜಾತ ಶಿಶುವಿಗೂ ಪರಿಣಿ ಮತ್ತು ಆಸ್ಪತ್ರೆ ಸಾಮಾನ್ಯ ಆರೋಗ್ಯ ಆರೈಕೆಯನ್ನು ಒದಗಿಸುವ' ನಮ್ಮ ಗುರಿಯನ್ನು ಸಾಧಿಸಬಲ್ಲೆವೆಂದು ಎಚ್ಚರಿಸಿದೆ. ಪ್ರತೀ ನವಜಾತ ಶಿಶುವನ್ನೂ ಧನಿಗೋಳವಾಗಿ ಇರುವ ಐತಿಹಾಸಿಗಳಾಗಿ ಪರಿಣಿ ಒಳಪಡಿಸಬೇಕು, ಏಕೆಂದರೆ, 'ಪ್ರತೀ ಶಿಶು, ಪ್ರತೀ ಬದುಕು ಕೂಡ ಅತ್ಯಮೂಲವಾಗಿದೆ'.

Grants

Funding Agency	Amount
DST FIST 2020	58,00,000 INR
Vision Group of Science and Technology, Karnataka.	60,00,000 INR
Grand Challenges Canada	\$ 1,00,000 CAD
Philips India	5,00,000 INR

Collaborating Institutes & Centres

- Hannover Medical School Germany
- Manipal College of Pharmaceutical Sciences, MAHE



Centre for Congenital Hand differences

Coordinator: Dr. Anil K. Bhat,

Associate Dean

Professor and Head

Department of Hand surgery , KMC, Manipal

Centre Overview

Centre	
Approval Date	30/11/2016
Coordinator	Dr Anil K. Bhat
Inception Date	01/12/2016
Term	2 Years + 2 Years + 2 years
Reporting to	Dean KMC, Manipal
Statement	
Vision	To be a centre of excellence in India for Congenital hand differences.
Mission	To practice comprehensive documentation, clinical knowledge translation, training, innovative research and community services for children with congenital hand differences
Objectives	<ol style="list-style-type: none"> 1. Promote awareness of local, regional and national data to create global impact in line with the vision of the University 2. Centre of repute in learning and teaching the management of congenital hand differences and develop holistic patient management with a team based approach 3. Spearhead high quality original and innovative research and development related to hand malformations in India and publish them. 4. Establish bilateral partnerships with high volume regional centres to enhance the potential for international partnerships and grants and achieve academic and innovative prowess. 5. Community participation along with involvement of policy makers to further services to remote areas

Members and Stakeholders

Team Members:

- **Co-ordinator: Dr Anil K. Bhat**
- **Research associates, elective students**

Key Stakeholders Involved

- **Children with congenital hand differences**
- **Parents and teachers**
- **Collaborating Hand surgeons**
- **Kasturba Hospital**
- **District administration**

Planned Activities

Milestones	Review Period	Planned Activity	Action Taken
Phase 1	1 – 6 months	<ul style="list-style-type: none"> • Hand registry website • Dissertation on registry system • Community survey • Congenital hand clinic • Mobile app • National level collaboration • 3D printing 	<ul style="list-style-type: none"> • Designed ,implemented, functional • On going • Udupi district • Clinic every week at Kasturba hospital • “ Hastha” App for teachers and parents for screening children • 8 Hand surgery centres • Prosthetics, orthosis
Phase 2	7 – 12 months	<ul style="list-style-type: none"> • CME • Conference • Observerships • Publications 	<ul style="list-style-type: none"> • Integrated CME in Mangalore, COS • April 2019 • Between 3 hand surgery centres • 7 international indexed publications
Phase 3	13 – 18 months	<ul style="list-style-type: none"> • Masters thesis • New Innovations • Academics • Grants • Commercialization 	<ul style="list-style-type: none"> • Maastricht university, MAHE • Custom designed Prosthesis, splints • Elective students/ Conference • Nidhi EIR grant • Splints
Phase 4	19 – 24 months	<ul style="list-style-type: none"> • PhD • Patent 	<ul style="list-style-type: none"> • Two proposals sent • Prior art search for two possible patent options in process

Details of the Process and Outcome

Key Activities	Details of the Process	Measurable Outcome
Certificate Course		
Workshops/ Conference	<ul style="list-style-type: none"> • Indo US hand surgery conference • 2 International presentations at Bulgaria, Biomedical innovation and applications • Innovation award: Biz pitch contest, Mangalore 	New Collaborations for future work on registry system
Research Grants Applied	<ul style="list-style-type: none"> • Nidhi EIR grant • Motorized 3D printing of hand prosthesis, 	Obtained Elevate grant: Proposal sent
Research Publications	Global health thesis 3 manuscripts	Maastricht university
Collaborations	<ul style="list-style-type: none"> • National: 8 centres • Rotaract club 	<ul style="list-style-type: none"> • MoU for Hand registry on CHD • Observership , Faculty visits • Prosthesis technology exchange/camps
Consultancy/ Revenue	3D Printed splints 3D printed face shields	Rs. 40,000

Final Review

Target	Results	Review
Phase 1	Achieved the targets	Done
Phase 2	Achieved the targets	Done
Phase 3	Achieved the targets	Present one
Phase 4	On going	

Additional Information



MANIPAL
ACADEMY of HIGHER EDUCATION
(Deemed to be University under Section 3 of the UGC Act, 1956)



HASTHA
Centre for Congenital Hand Differences
&
Dr. TMA Pai Endowment Chair, Manipal University

Home Aim Activities of the Centre Need for the Chair Collaborators Hand Registry Contact Us



Functional trails of the latest prototype:



Holding a Bag



Holding a Bottle



Holding a Key



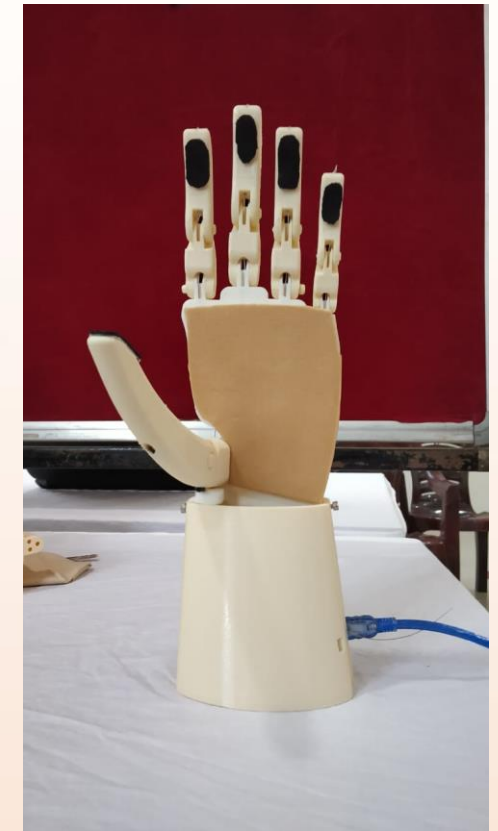
Holding a Pen



Carrying 5kg weight



Holding a Phone






**400 Face shields
provided to front line
workers at KH**



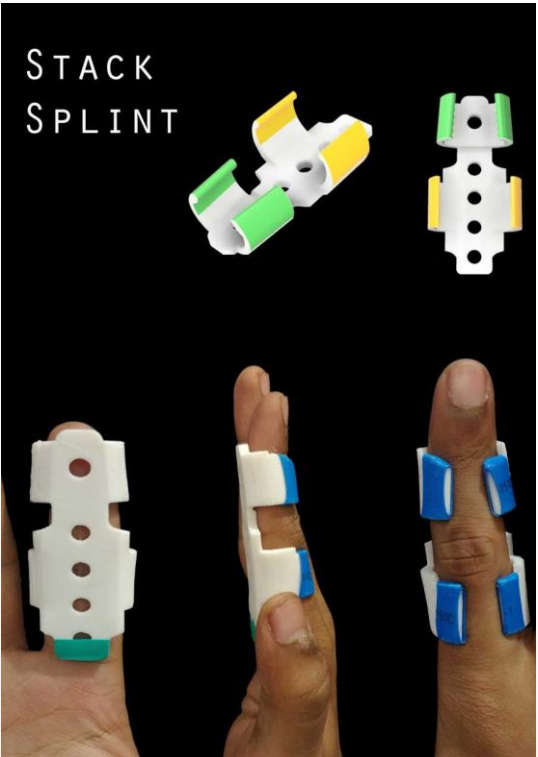


Additional Information



3D HASTHA

CATALOGUE OF 3D PRINTED ORTHOSES

Unit of Hand and Micro Surgery
Department of Orthopaedics
Kasturba Hospital, Manipal



Consultancy and sale through ALC

Additional Information

Publications:

- 1. Anil K. Bhat; Ashwath Acharya; Naufal Nahas: Radialization with Ulnar Cuff Osteotomy: A Technique for Deformity Correction in Radial Longitudinal Deficiency. Mar 2018 J Hand Surg Am.; 43(3):293-297.**
- 2. Anil K Bhat; Jayakrishnan Narayana kurup; Ashwath M. Acharya; Kumar Bhaskaranand: Outcomes of radialization for radial longitudinal deficiency: 20 limbs with minimum 5-year follow-up. Journal of Hand Surgery (European Volume) · July 2018**
- 3. Anil K. Bhat, Arathi P. Rao, Navya Vyas, Manisha Gore: Qualitative analysis of impact of congenital hand differences on children visiting a tertiary care hospital, Divine Thampi, Clinical epidemiology and Global health:7(2019) 413-417**
- 4. Satyam Chaturvedi, Amartya Gupta, Anil K Bhat, Harish Kumar Kamat: Functional Modification of upper limb Prosthesis for below elbow congenital deficiencies. International Conference on Biomedical Innovations and Applications, BIA 2019. DOI: 10.1109/BIA48344.2019.8967449.**
- 5. Amartya Gupta; Satyam Chaturvedi; Anil K Bhat; Mohammad Samheel; Adita Saxena: Design and manufacture of customizable finger immobilizer and mallet finger splints. International Conference on Biomedical Innovations and Applications, BIA 2019 DOI: 10.1109/BIA48344.2019.8967449.**
- 6. Anil K. Bhat; A.M. Acharya: Current concepts in the management Radial Longitudinal Deficiency: Journal of Clinical Orthopaedics & Trauma, Volume 11, Issue 4, July–August 2020, Pages 597-605**
- 7. Satyam Chaturvedi, Amartya Gupta, Vimal Krishnanan, Anil K.Bhat : Design, usage and review of a cost effective and innovative face shield in a tertiary care teaching hospital during COVID-19 pandemic., Journal of Orthopedics, Volume 21, Pages 331-336.DOI: <https://doi.org/10.1016/j.jor.2020.07.003>.**

Centre for Emergency Toxicology

Coordinator: Dr.Freston Marc Sirur
Evaluation Period: Phase I/Phase II

Centre Overview

Centre	Centre for Emergency Toxicology
Approval Date	February 11, 2021
Coordinator	Dr.Freston Marc Sirur (since December 1 st 2021)
Inception Date	February 15,2021
Term	2 years
Reporting to	Dr.Sharath Rao

Statement

Vision	To provide service to the nation by reducing the burden of toxicological emergencies.
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Mission	To set up a State of the Art Centre for Emergency Toxicology to translate evidence based toxicological practices for patient care
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Objectives	<p>1.Academics and training:1.UG and PG toxicology teaching and training through integrated modules.2.HAZMAT Team Training and simulation – MAHE HAZMAT module.3.Setting up of an interactive toxicology museum for toxicological substances and specimens.</p> <p>2.Research –Areas in Focus1.Point of care diagnostics in toxicology.2.Regional and International research collaboration.3.Research on anti-dotes, delivery systems and treatment modalities.4.Decontamination systems in Emergency departments.</p> <p>3.Clinical:1.Setting up of a.“Tox Cart” - for keeping necessary emergency drugs for quick use. b.Statox panel/lab – quick and easy testing and diagnosis of toxicological substances 2.Initiating a “Tox Board” – Collaboration of clinical and analytical toxicology to</p>
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Members and Stakeholders

- **Team Members:**

Dr.Freston Marc Sirur

Dr.Jayaraj M.B.

- **Key Stakeholders Involved**

KMC

- **MANIPAL POISON INFORMATION CENTRE**
- **Departments of medicine/critical care/forensic medicine/pharmacology - KMC**
- **Departments of social and preventive medicine -KMC**
- **Centre for Wilderness Medicine - MAHE**
- **Centre for Disaster management- MAHE**

NATIONAL LEVEL

- **All India institute of medical sciences- Dr Praveen Agarwal**
- **Amrita institute of medical sciences-Dr V V Pillay**

Planned Activities

Milestones	Review Period	Planned Activity	Action Taken
Phase 1	6 months	<ol style="list-style-type: none"> 1. Interdepartmental associations and preparation of outline indicating each stakeholder's job along with Setting up of the "TOX BOARD" 2. Setting up of protocols for management of toxicology patients 3. Setting up of TOXCART 4. Setting up of UG and PG curriculum 4. Start data collection and enrolment of patients for the "ToxiK" registry after CTRI registration 5. Collaboration with centre for wilderness medicine for the development of the department of emergency Medicine interactive toxicology museum. 6. plan toxicology seminar/workshop schedule for the next one year 7. start write-ups for research grants 	<p>Charted out the essential partners and the process in movement</p> <p>Completed</p> <p>Ongoing</p> <p>Completed</p> <p>Completed</p> <p>Started the process of collaboration</p> <p>Ongoing</p> <p>Ongoing</p>

Milestones	Review Period	Planned Activity	Action Taken
Phase 2	6 Months	<ul style="list-style-type: none"> • start module based training of undergraduates, postgraduate and staff – MAHE hazmat module • Training of staff and health care personnel's in HAZMAT decontamination systems • Conference/seminar in toxicology • Collaboration with center for wilderness medicine for the development of a venomics and poisoning lab. 	
Phase 3	6 Months	<ul style="list-style-type: none"> • International collaborations • Plan to initiate certificate course in emergency toxicology • Continuation of work of phase 1 and 2 	
Phase 4			

Details of the Process and Outcome

Key Activities	Details of the Process	Measurable Outcome
Certificate Course		
Workshops/ Conference		
Research Grants Applied		
Research Publications	<ol style="list-style-type: none"> 1.Multicentric Toxicological chemical exposure registry – “TOXIK”(IEC AND CTRI approved) 2.Retrospective study on OP poisoning 3.Retrospective study on rodenticide poisoning 4.Retrospective study on glyphosate poisoning 5.Retrospective study on atropine in OP poisoning 6.Methanol Poisoning –Retrospective Study 	<p>Achieved</p> <p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p>
Collaborations		
Consultancy/ Revenue		

Final Review

Target	Results	Review
Phase 1	Achieved the targets	completed majority ,Few pending
Phase 2		
Phase 3		
Phase 4		

Additional Information

Photographs

Publication list:

News paper articles:

Grants:

Collaborating institutes & Centres

Any other relevant information

MACSWAD - MAnipal Center for SWAllowing Disorders

Coordinator: Dr Suneel C Mundkur

Evaluation Period: Phase I/Phase II/Phase III/Phase IV

Centre Overview

Centre	
Approval Date	01-06-2021
Coordinator	Dr Suneel C Mundkur
Inception Date	01-06-2021
Term	2 years
Reporting to	Dean, K M C Manipal

Statement	
Vision	To be the center for excellence in education, research and comprehensive and innovative clinical care for swallowing disorders
Mission	To promote excellence in training and research to provide evidence based clinical services for swallowing disorders with a goal to 'Reach the Required'
Objectives	<p>To develop a comprehensive multidisciplinary clinic for assessment and management of individuals with swallowing disorders.</p> <p>Focused approach for swallowing disorders in a) children, b) Head & neck oncology cases, c) Neurological illnesses d) geriatrics</p> <p>To foster innovation, and to train/mentor students, researchers and health care providers in this area.</p> <p>To conduct knowledge enhancement workshops for the benefit of novice as well as practicing therapists.</p> <p>To enhance the research in the field of swallowing disorders and rehabilitation through national and international collaboration.</p>

Members and Stakeholders

Team Members:

Dr. Shama Shetty, Dept. of Otorhinolaryngology, KMC, Manipal

Dr. Venkataraja Aithal U, Dept. of Speech and Hearing, MCHP

Dr. Usha Devadas, Dept. of Speech and Hearing, MCHP

Dr. Veena K D, Dept. of Speech and Hearing, MCHP

Dr. Deepa Devadiga, Dept. of Speech and Hearing, MCHP

Mentors :

Dr Kailesh Poojari, HoD, Dept. of Otorhinolaryngology, KMC, Manipal

Dr Leslie E Lewis, Dept. of Paediatrics, KMC, Manipal

Key Stakeholders Involved

Speech and Swallowing division of Department of Speech and Hearing, MCHP, MAHE, Manipal

Departments of Otorhinolaryngology, Neurology, Paediatrics, Paediatric surgery, Radiotherapy, Surgical Oncology, Palliative medicine, Gastroenterology, Genetics, CTVS, Clinical Nutrition and Pulmonary Medicine from Kasturb Medical College, MAHE, Manipal.

Planning for next year

- To allocate venue for starting center – ENT OPD identified
- To get scope (FEES) as soon as possible
- To start a data base in standard format and to periodically audit the practice, research-related activities – process started
- Prepare software for data entry – ready , discussions on with IT team
- Weekly 'Swallowing clinic' – Procedures for the evaluation and rehabilitation can be charged as per the prefixed codes/package - yet to be finalized
- To arrange talks (ONLINE/ OFFLINE) from adjunct faculty /experts in this field. (4 lectures conducted)
- Yearly 'paid workshop' to train therapists and clinicians; Generated registration fee and sponsorship fee shall be utilised for developing the center – being planned

Planned Activities

Milestones	Review Period	Planned Activity	Action Taken
Phase 1	3 months	Identifying venue and procurement of equipment	-initiate communication to hospital and university authorities
Phase 2	3 months	-Protocols to be developed -Weekly swallowing clinic to be initiated and follow manual data entry -Identifying and listing the contents for software development based on needs	Meeting the IT experts for software design and development Manpower for Manual entry and other clerical work
Phase 3	3 months	Software development	Providing support for development of software
Phase 4	3months	Webinar/guest lecture	Inviting guest speakers in relevant areas to provide webinar

Details of the Process and Outcome

Key Activities	Details of the Process	Measurable Outcome
Certificate Course	Identifying policies and strategies to develop a certificate program	-
Workshops/ Conference	Identifying the speaker and sending invite	01 –webinar every 3 months
Research Grants Applied	Plan the areas for grant application and identify the funding agencies	-02
Research Publications	Initiate discussion among research groups	-02
Collaborations	Identifying departments / institutions/industries (National and international)for academic and research collaboration	01
Consultancy/ Revenue		- Patient care

Additional Information

Photograph

Publication list:

News paper articles:

Grants:

Collaborating institutes & Centers

Any other relevant information

Thesis completed: VALIDATING THE PILOT BALLOON METHOD WITH MANOMETER IN MONITORING THE CUFF PRESSURE IN DYSPHAGIA INDIVIDUALS

Total neurological cases with swallowing disorders treated 117 (Since June 2021)

Total lectures conducted : 4 (2 international speakers)

Name of the Centre: Centre for Wilderness Medicine

Coordinator: Dr.Freston Marc Sirur

Evaluation Period: Phase I / Phase II/ Phase III/ Phase IV

Instructions to complete the presentation

- The coordinator of the center will have a maximum of **10 minutes** to make the presentation
- The number of slides in the presentation should be limited to the outline provided - **Please do not add any slides**
- **Supplementary information** if any, could be attached in a separate word file as annexures
- The font type and size used for the presentation should be **Calibri - Size 18**
- **Populate tables** (wherever provided) with relevant information – Please do not change the format of the slide or re-format the presentation (font, font color, background color etc.)
- Any **additional information** or pictures can be added in the slide indicated for the purpose, but need to be limited to that one slide.
- Completed presentation should be mailed to provc.fhs@manipal.edu latest by 25th May 2020

Centre Overview

Centre	Centre for Wilderness Medicine
Approval Date	25/11/2019
Coordinator	Dr.Freston Marc Sirur
Inception Date	01/09/2019
Term	2 years extended for 2 more years.(November 2023)
Reporting to	Dr.Sharath Rao,Dean, KMC, Manipal

- **Statement**
- **Vision**
 - To provide a platform of learning in wilderness medicine in India and internationally.
 - To provide a service to the nation with this unique and diverse field.
 - To facilitate the development of various initiatives and innovations consistent with the sustainable development goals.
- **Mission**
 - To provide Wilderness Medical services locally, nationally and internationally.
 - To drive research, development and innovation in Wilderness Medicine.
 - To set up a sustainable division of Wilderness Medicine
 - To start training programs and courses in Wilderness Medicine- MD Marine Medicine(MCI approved) programs, short courses(Basic, Advanced and Specialized), Fellowships, student education and community training.
- **Objectives**
 - To provide Wilderness Medical services on expeditions to remote or austere environments.
 - To obtain training, observerships and participate in conferences on Wilderness Medicine.
 - To start training in Wilderness Medicine at MAHE.
 - To initiate and complete multidisciplinary Wilderness Medicine related Research and innovation.
 - To support all activities that require Wilderness Medical Support.
 - To start a Post graduate program in Dive and Marine Medicine.
 - To start a High Altitude and Mountaineering Medicine Program.

Members and Stakeholders

Team Members:

Dr.Freston Marc Sirur

Dr.Vrinda Lath

Dr.Jayaraj Mymbilly Balakrishnan

Working committee(positions yet to be filled-call for applications-Jan 2022)

Key Stakeholders Involved

- Department of Emergency Medicine, KMC, Manipal
- MAHE
- MARENA
- Department of Sports Science
- NDMA(Phase 1 of 2nd term)
- NDRF(Phase 1 of 2nd term)
- DRDO(Phase 1 of 2nd term)
- IMF(Phase 1 of 2nd term)
- Coast Guard(Phase 1 of 2nd term)
- Forest department(Phase 1 of 2nd term)
- Navy (Phase 1 of 2nd term)

Planned Activities

Milestones	Review Period	Planned Activity	Action Taken
Phase 1	1 – 6 months	Monthly workshops MOU's Bouldering /sport climbing wall Dive centre	<ol style="list-style-type: none"> 1. The EMT Wilderness Medicine Workshop 2. WGSMA goes WILD 3. Maastricht Wilderness Medicine Workshop 4. The Adventurer- wilderness First Aid Workshop 5. Nandurbar Doctors Training Workshop 6. MOU's with Barracuda India, SHE-India, Herpactive,ARRS-MCBT and Offtrail Adventures initiated 7. Discussions with Kings college London, Stanford WM and Wayne state university for collaborations undertaken-Halted due to the Pandemic 8. FAWM(WMS) initiated(Dr.Freston) 9. Proposal for Bouldering/sport climbing wall at Marena initiated-design and quotation obtained. 10. Space for the centre- initiated discussion with Dr.Fiddy Davis for a space at Marena 11. MD-Marine medicine Medicine program plan initiated 12. Human-Mammal conflict study with LKSOM proposed

Milestones	Review Period	Planned Activity	Action Taken
Phase 2	7-12 months	3 expeditions as Medical officer cancelled in view of the Pandemic	1. MOU's signed with (Phase 3) <ul style="list-style-type: none"> • Barracuda India • Coastal Impact • SHE-India • Madras Crocodile Bank Trust • Venomics lab-IISc Bangalore • Herpactive
Phase 3	13-18 months	PIT viper expedition Dive expedition to Andamans Desert Expedition MOUs and Online education Rural/Austere outreach-Subject to EMD staffing MOU's and online education initiated	
Phase 4	19-24 months	Formation of working committee Publication of research projects Wilderness medical support for monsoon expeditions WM conference-December 2021 BOS for Certificate courses	

Details of the Process and Outcome

Key Activities	Details of the Process	Measurable Outcome
Certificate Course	Draft in progress-Basic and Advanced wilderness life support course	Pending BOS submission
Workshops/ Conference	<ol style="list-style-type: none"> 1. The EMT Wilderness Medicine Workshop 2. WGSMA goes WILD 3. Maastricht Wilderness Medicine Workshop 4. The Adventurer- wilderness First Aid Workshop 5. Nandurbar Doctors Training Workshop 6. Wayne State University Collaborative Lecture series 7. Humane society India and The Liana trust Doctor's Training Workshop in Hunsur and Gundalpet 8. Conservation-Conflict-Coexistence conference 9. Goa forest dept. snake bite and wilderness first response 10. Wayne state Wilderness experience and simulation at ARRS 11. Captain Vishwanaths guest lecture-EMS, Dive medic. Cave diving. scuba professions 	<ol style="list-style-type: none"> 1.15 students trained through outdoor simulation-Snake bite, Trauma in the Austere Setting.(Feb 2020) 2. 20 students trained in wilderness survival, BLS in the Austere setting, Conservation and ecology.(Feb 2020) 3. Three batches of students elected for the WM workshop including Dive medicine.(Jan 2020) 4. Participants of The Adventurer given an interactive lecture on snake bite, envenomation and Wilderness first Aid. (Feb 2020) 5.150 government employed doctors trained in the management of snake bite, scorpion sting, hymenoptera sting and initial assessment and resuscitation with Manikins.(March 2020) 6. Lecture series for the Post graduates of the Dept of Emergency Medicine- High Altitude emergencies, Dive and marine emergencies. (March 2021) 7.50+ Government employed doctors trained in the management of snake bite, initial assessment and resuscitation.(Jan 2021) 8. 250+ participants- National level E-Conference. 9.200+ forest officers trained 10.Wilderness conference and research proposals, Simulation in the wilderness setting

Details of the Process and Outcome

Key Activities	Details of the Process	Measurable Outcome
Research Grants Applied	4 2 projects in planning phase-Innovations for WM services/ Austere injuries	3 rejected 1 in process
Research Publications	IEC approved Snake bite/envenomation Research in Progress Fall from tree during the Covid -19 pandemic Gaur Attack in the Western Ghats Hymenoptera Heartaches Change in KAP of expeditioners- pending due to Pandemic and Lockdown PLoS NTD (Q1)- Collaborative publication with Liverpool School of Tropical Medicine and SHE-India	Completed-Pending publications VENOMS Registry Fall from tree during the Covid -19 pandemic Gaur Attack in the Western Ghats Hymenoptera Heartaches-Published A Tropical Kiss by a Malabar pit viper-Accepted Published
Collaborations	Barracuda India, She-India, Herpactive, Offtrail Adventures ARRS, MCBT, Coastal impact, Venomics Lab-IISc WMS affiliation	7 MOU's signed Subsidized WMS conference registration, academic research resource access, MWLS course credits fro FAWM
Consultancy/ Revenue	Sponsored travel, stay and simulation equipment for Nandurbar Doctors Training Workshop by Snake bite healing and Education(SHE-India), Mazgaon docks limited and Laerdal India. CWM, HIS and The Liana trust in collaboration with the taluk hospitals of Hunsur and Gundalpet organized Doctors training workshops. Herpactive- Medical services The last Wilderness Foundation-Design of Remote Wilderness Clinic in Maharashtra/Madhya Pradesh India's Ultimate Warriors Wilderness medical service Nov 2021	200+ doctors trained in the management of snake bite, scorpion sting and hymenoptera envenomation, initial assessment and resuscitation, safe transfers of patients to higher centers. 50+ students 200+ forest officers trained in snake rescue and first response 30+ police officers trained in snake bite first response Dive centre proposal submitted to MAHE-approved Sport climbing wall proposal submitted to MAHE-approved

Final Review

Target	Results	Review
Phase 1	Monthly workshops MOU's Bouldering /sport climbing wall Dive centre	7 workshops completed MOU's initiated Dive and Bouldering institutes plan initiated. Courses structure and approvals in process
Phase 2	3 expeditions as Medical officer cancelled in view of the Pandemic PIT viper expedition Dive expedition to Andamans Desert Expedition	MOU's worked up and submitted Reviewed during last Centre presentation submission.
Phase 3	MOUs and education MOU's and online education initiated	Current 7 MOU's signed One National Level Conference conducted 9 workshops conducted-Hunsur and Gundalpet, Goa FD, PD, DH, PHC-Lions Club Dive centre proposal submitted with budget and space allocation Sport climbing wall proposal submitted with budget and space allocation Space for Centre explored-yet to be confirmed and allocated. Lecture series with Wayne state university initiated- international conference Dec 2021 Mattu beach Clean up Manipal Lake clean up
Phase 4	Formation of working committee Publication of research projects Wilderness medical support for monsoon expeditions WM conference BOS for Certificate courses- Basic and Advanced Wilderness Medical Response.	Initiated. Maximus –BASE- India's Ultimate Warriors Medical consultancy and services(Nov 2021) Goa forest dept snake rescue and snake bite first aid workshops. Manipal Lake clean up drive Mattu beach beach clean up drive Shankaranarayana snake bite first aid workshop

Additional Information

- **Publication list:**

- Kadam P, Ainsworth S, Sirur FM, Patel DC, Kuruvilla JJ, Majumdar DB. Approaches for implementing society-led community interventions to mitigate snakebite envenoming burden: The SHE-India experience. PLoS Neglected Tropical Diseases. 2021 Feb 25;15(2):e0009078.
- Sirur FM, Wilson W, Gopinathan V, Chethana AS, Lekha N. Hymenoptera heartaches-cardiac manifestation with hymenoptera stings, a retrospective study from a tertiary care hospital in South India. The American Journal of Emergency Medicine. 2021 Dec 1;50:294-300.
- A Tropical kiss by a Malabar Pit viper-Accepted

- **News paper articles:**

- **Collaborating institutes & Centres**

- SOLS
- MIT
- IISc-Centre for Ecological studies
- SHE-India, Herpactive, coastal impact, Barracuda Diving, MCBT-ARRS, The liana Trust, HIS, The last Wilderness Foundation

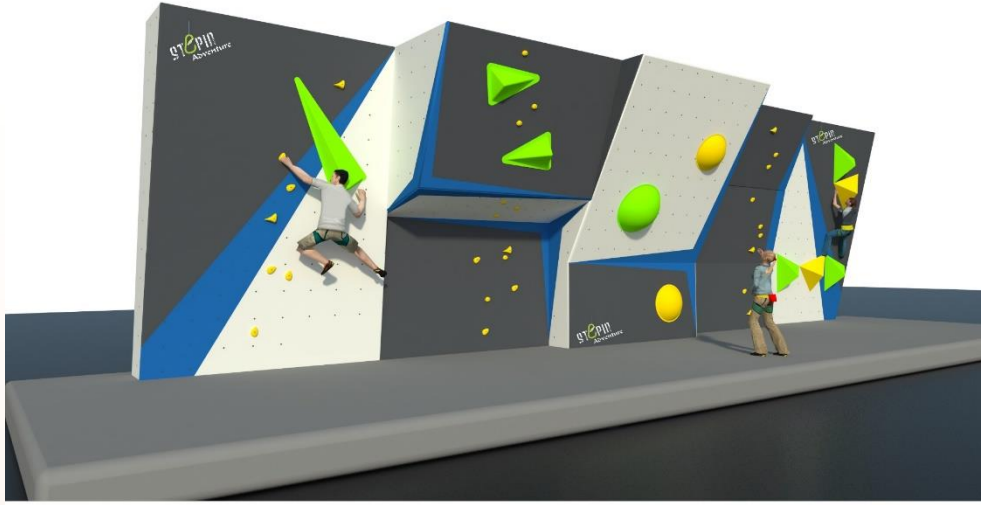
- **Any other relevant information**

- **Human wildlife conflict mitigation- over 30 snake human conflict situations mitigated in collaboration with the forest department.**
- **10+ wildlife rescue rehabs**
- **Stray Dogs case study on coexistence of domesticated but stray urban dog populations.**
- **Wilderness Medical Society Affiliation**
- **Student interest group initiated**

Photographs



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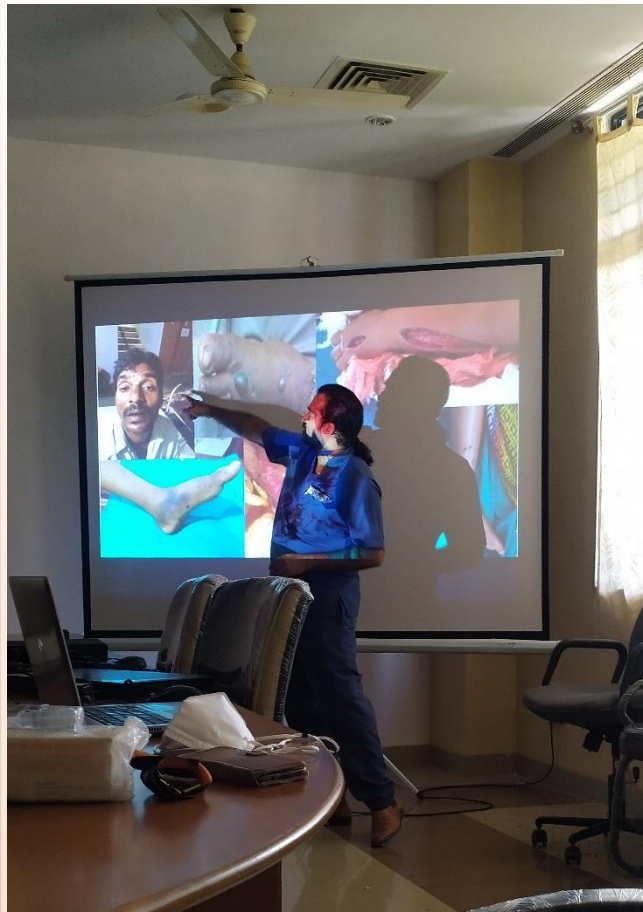
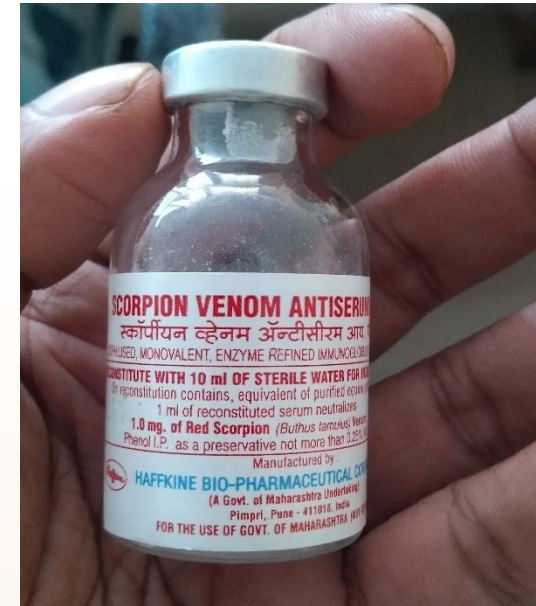






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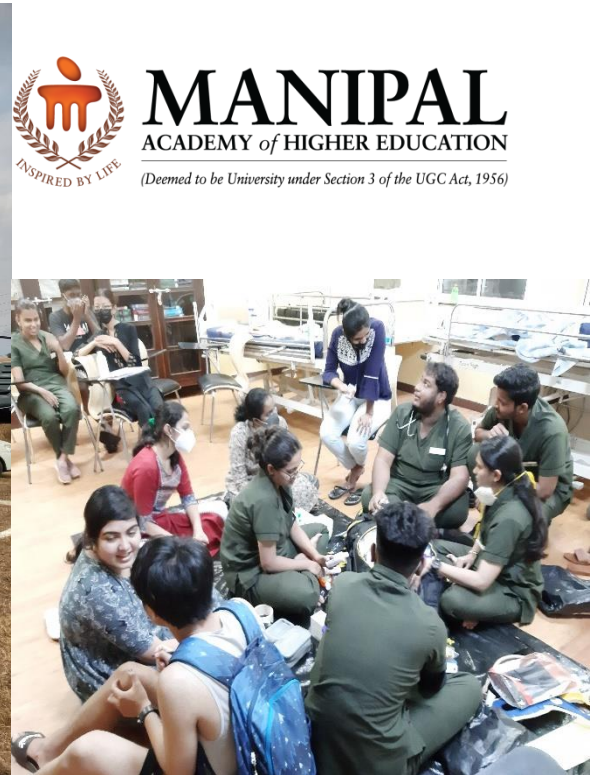


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Center for Antimicrobial Resistance and Education (CARE)

Coordinator: Dr Vandana K E

Evaluation Period: Phase

Centre	Center for Antimicrobial Resistance and Education” (CARE)
Approval Date	19 /11/2021
Coordinator	Dr Vandana K E
Inception Date	01/12/2021
Term	1
Reporting to	Dean, KMC, Manipal

Statement	
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Vision	Establish center of excellence to tackle AMR by advancing research and education
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Mission	<ol style="list-style-type: none"> 1. To increase awareness and understanding of antimicrobial resistance, its implications, and actions to combat it through effective communication, education, and training of major stakeholders such as prescribers, dispensers, and consumers 2. To establish collaborative research networks with national and international agencies 3. Develop and strengthen research methodologies focusing on evidence informed practices
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Objectives	<ol style="list-style-type: none"> 1. To create and disseminate educational contents to various stakeholders involved in antimicrobial use 2. To enhance the laboratory capability to detect AMR mechanisms 3. To develop skill-based competency modules in IPC, antimicrobial stewardship and AMR surveillance 4. To conduct laboratory, clinical and epidemiological studies
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Members and Stakeholders

Team Members:

Dr Muralidhar Varma
Dr Chiranjay Mukhopadhyay
Dr Suneel C Mundkur
Dr Shashikiran U
Dr Bharti Magazine
Dr Asha Kamath

Key Stakeholders Involved

- Doctors
- Dentists
- Pharmacy practitioners
- Pharmacists
- Nurses
- Microbiologists
- All the health sciences students
- Public

Planned Activities

Milestones	Review Period	Planned Activity	Action Taken
Phase 1	December 2021- May 2022	Sensitization workshops	Arranged one workshop and one seminar
Phase 2			
Phase 3			
Phase 4			

Details of the Process and Outcome

Key Activities	Details of the Process	Measurable Outcome
Certificate Course		
Workshops/ Conference	<ol style="list-style-type: none"> 1. Antimicrobial Stewardship for Kasturba Hospital through Education, Leadership and Practice [ASK-HELP], on 4th & 5th February 2022 2. World hand hygiene day 2022 was organized to spread the awareness on IPC and AMR 	<ol style="list-style-type: none"> 1. Postgraduates in surgical specialities were trained in the appropriate use of antimicrobial agents, and diagnostic test utilization improvements. 2. 200 students of health sciences students from medical, dental, nursing, physiotherapy and respiratory therapy students participated to learn the importance of IPC and AMR
Research Grants Applied	<ol style="list-style-type: none"> 1. Detection of class 1 integrons in carbapenem resistant K. pneumoniae and their role in dissemination of antimicrobial resistance in a clinical setting: an experimental study 	
Research Publications	<ol style="list-style-type: none"> 1. Epidemiology of sepsis and risk factors for mortality in intensive care unit: a hospital based prospective study in South India. https://doi.org/10.1080/23744235.2021.2017475 2. Antimicrobial resistance and the post antibiotic era: better late than never effort. https://doi.org/10.1080/14740338.2021.1928633 3. Self-reported survey on infection prevention and control structures in healthcare facilities part of a national level healthcare associated infection surveillance network in India, 2019. https://doi.org/10.1016/j.ajic.2021.09.019 4. Stochastic modeling of antimicrobial resistance, JP Journal of Biostatistics 18(2) (2021), 199-208. DOI: 10.17654/JB018020199 	
Collaborations	<ol style="list-style-type: none"> 1. Industry academia collaboration with bioMerieux 	
Consultancy/ Revenue	-	-

Final Review

Target	Results	Review
Phase 1		
Phase 2		
Phase 3		
Phase 4		



Additional Information



Photographs

Publication list:

News paper articles:

Grants:

Collaborating institutes & Centers

Any other relevant information

Photographs



Manipal Academy of Higher Education (MAHE) and bioMérieux signed an agreement to establish a Center of Excellence for Antimicrobial Resistance and Antimicrobial Stewardship



KASTURBA MEDICAL COLLEGE

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Centre for Clinical Anthropometry

Coordinator: Dr. Chandni Gupta

Evaluation Period: Phase II

Centre Overview

Centre	
Approval Date	1/12/2020
Coordinator	Dr. Chandni Gupta
Inception Date	01/12/2018
Term	2 Years
Reporting to	Dean, KMC, Manipal
Statement	
Vision	To have a anthropometric base line database for the adult and fetal Indian population which will be utilized to identify the sex, age, nutritional status, diseases, human remains and various congenital anomalies.
Mission	To become a Center of distinction in the field of clinical Anthropometry which aims to update and collect various anthropometric data of adult and fetuses of different populations of various regions.
Objectives	<ol style="list-style-type: none">1. Collecting various anthropometric data of adults, children and fetuses of all parts of India and making a normal database.2. Identify and explore emerging research issues in the field of clinical anthropometry and apply for grants.3. To facilitate knowledge dissemination among various stakeholders.

Members and Stakeholders

Team Members:

Mentors : Dr. Sharath K Rao

Members :

Faculties from various departments:

- 1. Anatomy**
- 2. Forensic Medicine**
- 3. Community Medicine**
- 4. OBG**

Key Stakeholders Involved

- Academicians
- Law enforcement agencies: police
- Students
- Doctors

Planned Activities

Milestones	Review Period	Planned Activity	Action Taken
Phase 1	1-6 months	Research projects Webinar on Forensic Anthropology	2 projects sent for publications 2 Projects making paper for publication 1 publication in Q3 international journal 2 projects are ongoing 1 Project applied for a PhD candidate Webinar: 23 rd April, 2021
Phase 2	7-12 months	<ul style="list-style-type: none"> Research projects Webinar on Forensic Anthropology 	3 projects sent for publications 1 Projects making paper for publication 1 publication in Q2 international journal 5 projects are ongoing Webinar: 9 th July, 2021
Phase 3			
Phase 4			

Details of the Process and Outcome

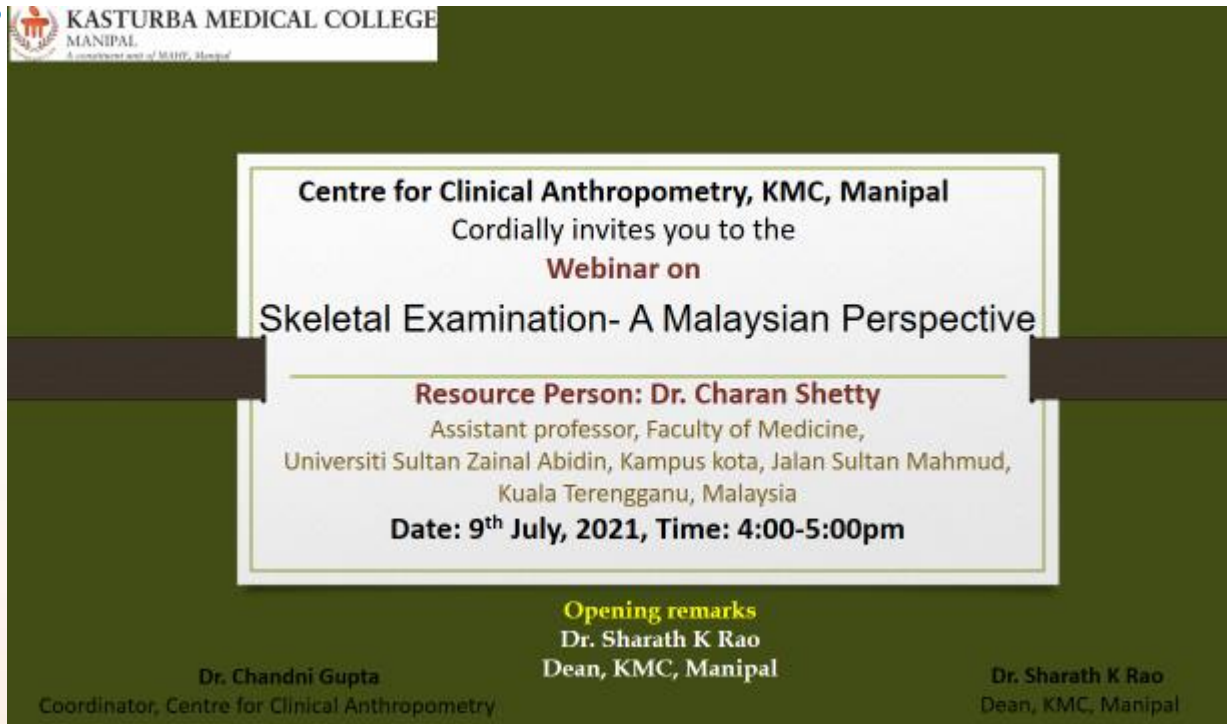
Key Activities	Details of the Process	Measurable Outcome
Workshops/ Conference	1. Webinar: 9 th July, 2021 Topic: "Skeletal Examination- A Malaysian Perspective". Total Participants: 120.	
Research Publications	<p><u>7 Research projects</u></p> <ol style="list-style-type: none"> 1. Comparison of anthropometric measurements in normal, gestational diabetes and hypertensive pregnancies. (Msc PG) 2. Correlation of anthropometric measurements with gestational age of fetus: An ultrasound based study. (Msc PG) 3. Estimation of stature using various Anthropometric measurements in south Indian population and their correlation with Co-Morbid conditions. (Msc PG) 4. Estimation of stature using various Anthropometric measurements in Sikkimese tribal population and their correlation with Co-Morbid conditions. (UG) 5. Anthropometric study on correlation of age with the size of subcortical nuclei and ventricular system of the brain and its implication in degenerative disease(UG) 6. Morphometric study of upper and lower end of humerus with clinical significance (Msc PG) 7. Development of standardized regional growth chart for children of Dakshina kannada (UG) 8. Anthropometric and Histological study of the development of the human fetal stomach (UG) 9. Morphometric and Histologic Study of Human Foetal Appendix (UG) 10. Morphometric analysis of main sulci of Brain with its clinical implications (MSc PG) 	<ol style="list-style-type: none"> 1. Published in Q2 journal 2. On going 3. Sent for publication 4. Preparing for publication 5. Sent for Publication (ICMR STS Grant) 6. Sent for publicatioion 7. On going 8. On going 9. On going 10. On going
Collaborations	<ul style="list-style-type: none"> • Interdepartmental (Forensic Medicine, Community Medicine, OBG, Radiology, pediatrics) • International (Universiti Sultan Zainal Abidin, Kampus kota, Jalan Sultan Mahmud, Kuala Terengganu, Malaysia) 	<ul style="list-style-type: none"> • Research Projects- Publications • Webinar
Consultancy/ Revenue	By doing workshop	1100rs profit

Final Review

Target	Results	Review
Phase 1	<ul style="list-style-type: none">• 2 Projects making paper for publication• 1 published in Q3 international journal• 2 projects are ongoing (1 accepted for ICMR STS)• 1 project applied for a PhD candidate• 2 sent for publication• 1 Webinar	
Phase 2	<ul style="list-style-type: none">• 3 projects sent for publications• 1 Projects making paper for publication• 1 publication in Q2 international journal• 5 projects are ongoing• 1 Webinar	
Phase 3		
Phase 4		

Additional Information

Photographs



KASTURBA MEDICAL COLLEGE
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Centre for Clinical Anthropometry, KMC, Manipal
Cordially invites you to the
Webinar on
Skeletal Examination- A Malaysian Perspective

Resource Person: Dr. Charan Shetty
Assistant professor, Faculty of Medicine,
Universiti Sultan Zainal Abidin, Kampus kota, Jalan Sultan Mahmud,
Kuala Terengganu, Malaysia
Date: 9th July, 2021, Time: 4:00-5:00pm

Opening remarks
Dr. Sharath K Rao
Dean, KMC, Manipal

Dr. Chandni Gupta
Coordinator, Centre for Clinical Anthropometry

Dr. Sharath K Rao
Dean, KMC, Manipal

Journal of Taibah University Medical Sciences (2021) 16(6), 887–893



Taibah University

Journal of Taibah University Medical Sciences

www.sciencedirect.com



Original Article

Comparison of anthropometric measurements of fetuses in normal, gestational diabetes-affected, and hypertensive pregnancies

Rhea Lewis, Msc, Chandni Gupta, MD* and Rohini Punja, MD

Department of Anatomy, Kasturba Medical College, Manipal, Manipal Academy of Higher Education, Manipal, India

Received 3 April 2021; revised 20 July 2021; accepted 6 August 2021; Available online 4 September 2021

المخلص

أهداف البحث: تقوم القياسات الأنثروبومترية للجنين بتقييم ومراقبة نمو الجنين وتقدير الحالة التغذوية للجنين النامي. وهي مؤشر حيوي لنمو الجنين الطبيعي أو غير الطبيعي داخل الرحم. وأكثر العلامات ذات الصلة في القياسات الأنثروبومترية للجنين هي القطر الثاني، ومحيط الرأس، ومحيط البطن، وطول الفخذ. بعداء سكري الحمل وارتفاع ضغط الدم الحاملي من الأسباب الرئيسية للاختلافات في نمو الجنين. وتقرن هذه الدراسة قياسات الجسم البشري للجنين باستخدام الموجات فوق الصوتية بين حالات الحمل العادية، وسكري الحمل، وحالات ارتفاع ضغط الدم الحاملي.

طرق البحث: في هذه الدراسة، تم إجراء ما مجموعه ٦١٥ عملية مسح للشذوذ بين أعمار الحمل من ١٨ إلى ٢٢ أسبوعاً من ٢٠١٦ إلى ٢٠١٨. تم جمع بيانات المرضى من سجل غرفة فحص الحالات الشاذة. ضم قياس العلامات القياسية البشرية للجنين القطر الثاني ومحيط الرأس ومحيط البطن وطول الفخذ.

Abstract

Objectives: Foetal anthropometry evaluates and monitors foetal development and assesses the nutritional state of the developing foetus. It is a vital indicator of the normalcy of foetal development in-utero. The most relevant parameters in foetal anthropometry are biparietal diameter (BPD), head circumference (HC), abdominal circumference (AC), and femur length (FL). Gestational diabetes mellitus (GDM) and gestational hypertension (GHTN) are the major reasons for variations in foetal development. In this study, we compare foetal anthropometric measurements taken using ultrasounds of normal, gestational diabetes-affected, and hypertensive pregnancies.

Publication list:

1. Rhea Lewis, Chandni Gupta, Rohini Punja. Comparison of anthropometric measurements of fetuses in normal, gestational diabetes-affected, and hypertensive pregnancies. Journal of Taibah University Medical Sciences, 2021;16 (6):887-893.

Collaborating institutes & Centers: International (Universiti Sultan Zainal Abidin, Kampus kota, Jalan Sultan Mahmud, Kuala Terengganu, Malaysia)

Center for Rare Disease Diagnosis, Research and Training

Coordinator: Dr. Girisha KM

Evaluation Period: Phase I

Centre Overview

Centre	Center for Rare Disease Diagnosis, Research and Training
Approval Date	September 1 2021
Coordinator	Dr. Girisha KM
Inception Date	September 1 2021
Term	
Reporting to	Dean KMC Manipal

Statement	
Vision	Develop a Center for Rare Disease as a benchmark for diagnosis, care and research and training in India
Mission	To establish a self-sustaining center for cutting edge research in rare disease etiology along with training the next generation of scientists for clinical and fundamental biomedical research.
Objectives	<ul style="list-style-type: none">• To establish a local cohort and biorepository for rare genetic disorders.• To deploy exome sequencing (ES), whole genome sequencing (WGS) and RNA-Seq for discovering potential disease-causing variants.• To functionally characterize causal genes/variants in cells and model organisms through in vitro assays, proteomics and, metabolomics/lipidomics approaches to understand the potential disease mechanisms.• To establish a cutting-edge interdisciplinary research-training program focused on rare diseases for physician-scientists (Clinical Research Training Program (CRTP)), basic scientists and genetic counselors, that integrates clinical and laboratory sciences

Members and Stakeholders

Team Members:

Mentors :

- Dr. Girisha KM
- Dr. Anju Shukla

Members :

- Dr. Dhanya Lakshmi N
- Dr. Priyanka Upadhyai
- Dr. SriLakshmi Bhavani
- Dr. Shalini Nayak
- Dr. Rama Rao Damerla

Key Stakeholders Involved

Institute of Bioinformatics, Bangalore

- Dr. Akhilesh Pandey

Dr. Reddy's Institute of Life Sciences, Hyderabad

- Dr. Aarti Sevilimedu

Planned Activities

Milestones	Review Period	Planned Activity	Action Taken
Phase 1	0-12 months	<p>Patient enrolment</p> <p>Website (including registry, databases, repository)</p> <p>Recruitment for CRTP training program</p>	<p>Recruited 276 families. Exome sequencing and genome sequencing for 269 and 2 patients respectively. Genetic diagnosis achieved in 119 patients.</p> <p>Recruited 6 PhDs, 1 physician scientist and 2 postdoctoral scientists</p>
Phase 2	13-24	<p>Web portal for the virtual center</p> <p>PhD training for 6 CRTP fellows and ~10 PhD scholars</p>	
Phase 3	25-36	<p>Rare disease patient cohort of ~5000 families</p> <p>NGS for ~700 individuals</p> <p>Identification of 3 new genes and upto 10 new variants</p>	
Phase 4	37-60	PhD Awarded	

Details of the Process and Outcome

Key Activities	Details of the Process	Measurable Outcome
Certificate Course	Clinical Research Training Program	Recruitment of PhD students, Postdoctoral research scientists and Physician scientists
Workshops/ Conference	Every 6 months meeting with stake holders of the India Alliance CRC grant	Publications, new collaborations and study ideas.
Research Grants Applied	1	Center for Rare Disease Diagnosis, Research and Training was established as result of the DBT/Wellcome Trust India Alliance Clinical Research Center grant awarded to Dr. Girisha KM.
Research Publications	3 publications submitted	Currently under review
Collaborations	Institute of Bioinformatics, Bangalore Dr. Reddy's Institute of Life Sciences, Hyderabad	Publications and research grants
Consultancy/ Revenue	-	-

Final Review

Target	Results	Review
Phase 1		
Phase 2		
Phase 3		
Phase 4		

Additional Information

Photographs :

Publication list:

News paper articles: 0

Grants: (1) DBT/Wellcome Trust India
Alliance Clinical Research Center grant (INR
13 Crores)

Collaborating institutes & Centers

- Institute of Bioinformatics, Bangalore
- Dr. Reddy's Institute of Life Sciences,
Hyderabad

Any other relevant information



Centre for Community Oncology

Coordinator: Dr Ranjitha Shetty

Evaluation Period: Phase IV & V

Centre Overview

Centre	Centre for Community Oncology
Approval Date	23/11/2015
Coordinator	Suma Nair
Inception Date	20/12/2015
Term	5 Years 5 months
Reporting to	Dr Sharath K Rao, Dean KMC, Manipal
Statement	
Vision	To be a centre of excellence for the prevention and control of cancer in the community
Mission	Bring about cancer control by primary, secondary and tertiary prevention activities
Objectives	<ol style="list-style-type: none"> 1. Promote and implement primary, secondary & tertiary levels of prevention with respect to common cancers in the region. 2. To foster research in the area of cancer prevention & control and facilitate the output of quality publications and research grants. 3. Capacity building, training and mentorship 4. Consulting for Preventive Oncology activities

Members and Stakeholders

Team Members:

- **Mentors:**
 - Dr Sharath K Rao, Dean KMC, Manipal
 - Dr Sathish Rao KB, Director Research, MAHE, Manipal
- **Members:**
 - Dr Chiranjay Mukhopadhyay, Director , MIV
 - Dr Naveen Salins, Coordinator, MCCCC
 - Dr Asha Kamath, Deputy Director, PSPH
 - Dr Ranjitha S Shetty, Associate Professor, Community Medicine, KMC, Manipal
 - Dr Kanthilatha Pai, Professor, Department of Pathology, KMC, Manipal
 - Dr Shyamala G, Professor, Department of OBGyn, KH, Manipal
 - Dr Monica Solomon, Professor, Department of Oral Pathology, MCODES, Manipal
 - Dr Stanley Mathew, Professor, Surgery, KH, Manipal
 - Dr Mahadev Rao, Professor & HOD, Pharmacy Practice, MCOPS

Key Stakeholders:

- Departments of Community Medicine & Pathology, KMC, Manipal
- Manipal Centre for Comprehensive Cancer Care, KH, Manipal
- Departments of Surgery & OBGyn , KH, Manipal
- Manipal College of Dental Sciences, Manipal
- School of Information Sciences, Manipal
- Centre for Indigenous population
- Transdisciplinary centre for qualitative methods
- Markey Cancer Centre, University of Kentucky
- Institute of Applied health sciences, University of Aberdeen
- RUHSA - CMC, Vellore
- Kerala cancer care
- District health and family welfare Udupi district
- Indian Cancer Society
- Population of Udupi District

Planned Activities

Milestone	Review Period	Planned Activity	Action Taken
Phase 1	1 – 12 months (Dec 2015 – Nov 2016)	Primary & secondary prevention activities	Awareness Camps covering Udupi Taluk Population Screening in Udupi Taluk
Phase 2	13 – 24 months (Dec 2016 – Nov 2017)	Primary & secondary prevention activities International & National collaborations Collaborative Conferences / Symposia Student projects Enrol PhD candidates / Procure research grants	Awareness Camps & Population Screening extended Markey Cancer Centre, UoK Symposium - 1 Student projects - 3 PhD scholar – 1 / Grant – 1
Phase 3	25 –36 months (Dec 2017 – Nov 2018)	Primary & secondary prevention activities Training for home based palliative care International & National collaborations Collaborative Conferences / Symposia Student projects Enrol PhD candidates / Procure research grants	Awareness Camps & Population Screening extended Personnel trained in home based palliative care in collaboration with the department of Palliative medicine University of Aberdeen Symposium – 1 / Workshop - 1 Student projects - 2 PhD scholar – 1 / Grant – 1
Phase 4 & 5	37 – 65 months (Dec 2018 – May 2021)	Primary & secondary prevention activities International & National collaborations Collaborative Conferences / Symposia Enrol PhD candidates / Procure research grants	Awareness Camps & Population Screening extended to the District University of Chicago / Kerala Cancer Care / Indian Cancer Society Symposium – 2 PhD scholar – 2 / Grant – 1 In the process of Establishing a cancer screening registry & a cancer cohort

Details of the Process and Outcome

Key Activities	Details of the Process	Measurable Outcome
Certificate Course	In the final stages of the process to initiate certificate programmes in Cancer epidemiology & Preventive Oncology	Initiation of the course & attracting participants
Workshops/ Conference	Conducted the Cancer Collective 2020 , a symposium to commemorate the world cancer day on 29.2.2020 Cancer collective 2021 was an online webinar conducted on 28.2.2021	Good number of delegates across disciplines Planned a collaborative research project Launched a dedicated website for CCO
Research Grants Applied	SERB CRG / POWER & DBT IC- IMPACTS, Canada	Not successful Successful
Research Publications	5	Q1, Q2 and Q4 journal publication
Collaborations	<ul style="list-style-type: none"> • Rural Unit for Health & Social Affairs (RUHSA), CMC, Vellore • Kerala Cancer Care, Cochin, Kerala, India • Markey Cancer Center, University of Kentucky • Institute of Applied Health Sciences, University of Aberdeen • UE Life sciences, Mumbai • Indian Cancer Society, Mumbai 	Collaborative projects, summits and initiate new programmes
Consultancy/ Revenue	From Indian Cancer Society (12,000 per screening activity + consumables + partial costs to deserving patient treatment costs)	Self sustaining and able to recruit students and interested faculty for short term projects / PhD / Post Doc programmes

Final Review

Target	Results	Review
Phase 1		
Phase 2		
Phase 3		
Phase 4		

Additional Information

DOI:10.31557/APJCP.2020.21.9.2569
Opportunities and Barriers to Breast-Cancer Screening

RESEARCH ARTICLE

Editorial Process: Submission:11/12/2019 Acceptance:09/14/2020

Opportunities and Barriers to Breast Cancer Screening in a Rural Community in Coastal Karnataka, India: A Qualitative Analysis

Thejas R Kathrikolly¹, Ranjitha S Shetty¹, Suma Nair^{1,2*}

Abstract

Background: Breast cancer is reported to be to incidence ratio. Late presentation, driven by 1 of the stated reasons for this. Given this context, rural women towards the disease and factors th
Methods: Forty-four rural women aged 20-60 Focus Group Discussions (FGDs) that were cor breast cancer screening. Participants were identi

DOI:10.31557/APJCP.2020.21.12.3655
"ICANTREAT" Community of Expertise

RESEARCH ARTICLE

Editorial Process: Submission:10/03/2020 Acceptance:12/23/2020

Increasing Engagement for Breast Cancer Screening and Treatment: The "ICANTREAT" Community of Expertise Initiative

Thejas R Kathrikolly¹, Suma Nair^{1,2*}, Amudha S Poobalan³, Ranjitha S Shetty^{1,4}, Sheela Tripathee⁵, Sara J Mac Lennan³

Abstract

Background: Incidence of breast cancer and associated mortality are on the rise globally. Breast cancer incidence in India is on the rise and also accounts for a staggering 50% mortality rate among women. Health illiteracy, socio-economic and cultural barriers in addition to lack of an organized nationwide screening and prevention programme contribute to poor patient outcomes. Thus, it is imperative to strengthen the existing screening and treatment facilities to address the increasing cancer burden. In this regard, we conducted a workshop to investigate the scope of a multi-stakeholder engagement in breast cancer screening and treatment. **Methods:** A stakeholder workshop district in South India with programme officers, public

Received: 14 August 2019 | Revised: 12 November 2019 | Accepted: 29 December 2019
DOI: 10.1002/pon.5326



PAPER

WILEY

Exploring perceptions and practices of cancer care among caregivers and care recipients of breast cancer in India

Shradha S. Parsekar¹ | Ajay Bailey^{2,3} | Binu V. S.⁴ | Suma Nair¹

¹Department of Community Medicine, Kasturba Medical College, Manipal Academy of Higher Education (MAHE), Manipal, India

²International Development Studies, Department of Human Geography and Spatial Planning, Faculty of Geosciences, Utrecht University, Utrecht, The Netherlands

³Transdisciplinary Centre for Qualitative Methods, Praesama School of Public Health, MAHE, Manipal, India

⁴Department of Biostatistics, Dr M.V. Govindaswamy Centre, National Institute of Mental Health and Neuro Sciences, Bengaluru, India

Correspondence

Abstract

Objective: Cancer care is physically and psychologically challenging for both care recipients and caregivers. Caregiving in cancer is an area that needs urgent attention in India. Much of caregiving literature in India is limited to mental illnesses. This study thus examines the perceptions and practices of psychological caregiving among caregivers and care recipients of breast cancer in India.

Methods: Participants were interviewed with the aid of a semistructured qualitative interview guide. Participants included 39 caregivers and 35 care recipients in different breast cancer stages. Interviews were transcribed, translated to English, and coded, and themes were derived for further analysis. Informed consent from participants and ethical clearance and permission from a tertiary hospital were obtained

Ongoing Projects

- Smart app-based rapid multiplex screening of sexually transmitted infections (STI) in at risk populations at the point-of-care: A demonstration study in India [IC-IMPACTS, UBC, Canada]
- Non - Invasive Strategy for Early Detection of Clinically Relevant Breast Lesions in Low Resource Settings [UE Life sciences]
- Cancer screening initiative for the rural population of coastal Karnataka [Shamdasani foundation Cancer Care Endowment]

Completed Projects

- Development of ECO (Easy Cervico Optimizer) - a novel device to facilitate cervix cancer screening in the community [MGH - CAMTech India Innovation awards program]
- Prevalence of oral premalignant lesions, its risk factors and stage of change in tobacco use behaviour among the adult population in Udupi taluk of coastal Karnataka.
- Assessing the utility of existing risk models in estimating breast cancer risk among Indian women in coastal Karnataka [ICMR – STS]
- Validation of autoantibodies and their combined role with clinical, anthropometric and behavioral factors in predicting Breast Cancer risk in Indian Women [DST]
- Informal care givers of women with breast cancer and their burden of care and quality of life (BoC-QoL): A Mixed Method Study in the Indian context [Qualitative Research Group, Netherlands]
- Development and Validation of a comprehensive Cancer risk assessment tool for an age cohort in a coastal region of Udupi taluk, Karnataka [ICMR MD thesis award]

Additional Information

Centre for Community Oncology, KMC, Manipal The Cancer Collective 2020- Commemorating World Cancer Day 29-02-2020



The Cancer Collective 2021

Chief Guest
Dr Anil D Cruz
Director of Oncology, Apollo Hospitals
President, UICC, Geneva



Inaugural address
Dr Sharath K Rao
Dean
Kasturba Medical College, Manipal, MAHE



Guests of Honour
Ms Pheroza Bilimoria
Founder Trustee
Jimmy's Bilimoria Foundation



Ms Harmala Gupta
Founder President
CanSupport- India



Distinguished speakers

Dr Shirley Lewis Salins
Associate Professor
Dept. of Radiotherapy and Oncology
Kasturba Medical College and Hospital, Manipal



Dr Seema Rao
Consultant
Dept. of Palliative Medicine and Supportive Care
Kasturba Medical College and Hospital, Manipal



Dr Muralidhar Kulkarni
Associate Professor
Dept. of Community Medicine
Kasturba Medical College, Manipal



Organised by

Kasturba Medical College & Kasturba Hospital, Manipal, Centre for Community Oncology, Manipal Comprehensive Cancer Care Centre (MCCC) and Dept. of Community Medicine, KMC, Manipal



Dr Naveen Salins
Professor & Head - Dept. of Palliative
Medicine and Supportive Care
Coordinator - MCCC
Kasturba Medical College, Manipal



Dr Suma Nair
Professor & Head - Dept. of Community Medicine
Coordinator - Centre for Community Oncology
Kasturba Medical College, Manipal



Thejas Kathrikolli



Jayasree Ramachandran



Dr Shradha Parsekar

Research scholars, Dept. of Community Medicine, Kasturba Medical College, Manipal

Website: ccomahe.com

Email: cco.mu@manipal.edu

Name of the Centre: Center for Poison Information

Coordinator: Dr. Vinutha R Bhat

Evaluation Period: Phase I, Phase II, Phase III, Phase IV

Centre Overview

Centre	
Approval Date	01/12/2019
Coordinator	Dr. Vinutha R Bhat
Inception Date	01/12/2019
Term	2 Years and extended up to another 2 years
Reporting to	The Dean
Statement	
Vision	1. To become a WHO accredited centre in Coastal Karnataka to provide comprehensive medical care of poisoning cases.
Mission	<ol style="list-style-type: none">1. To increase collaborations/grants/research outputs.2. To improve the infrastructure with few modern equipment.
Objectives	<ol style="list-style-type: none">1. Create basic awareness about hazards of pesticides among farmers/public & regular screening of farmers.2. Rapid resolution of all poison/substance abuse cases3. Provide info to public/doctors/law enforcing agency regarding pesticides/substance of abuse4. To attract good quality research publications / PhDs /grants5. Encourage research collaborations/student exchange programs6. In collaboration with KMCH participate in antidote procurement and storage facility – to support WHO initiative.

Members and Stakeholders

Team Members:

Dr. Vinutha R Bhat – Coordinator

Dr. Shankar M Bakkannavar – Co-Coordinator

Key Stakeholders Involved

- Clinicians & private practitioners

Planned Activities

Milestones	Review Period	Planned Activity	Action Taken
Phase 1	1 – 6 months	To conduct a webinar with the University of Kentucky. To organize a screening program for farmers in a village near Tumkur.	Organized
Phase 2	7 – 12 months	To conduct a workshop/CME for post graduate students and interested faculty on emphasizing the importance & functioning of Center for Poison Information.	Organized
Phase 3	13 – 18 months	Hands-on training for postgraduate students on Analytical Forensic Science.	Organized
Phase 4	19 – 24 months	Initiated a certificate course from our center in collaboration with Center of Clinical Forensics with a credit-based system. Initiated a Tox Board in collaboration with Department of Emergency Medicine, Paediatrics, Neurology, Medicine and Forensic Science.	To be organized

Details of the Process and Outcome

Key Activities	Details of the Process	Measurable Outcome
Certificate Course		
Workshops/ Conference	<ol style="list-style-type: none"> 1. A webinar was organized on 3.3.2020 from University of Kentucky regarding Biology and Therapy of Cancer . 2. A webinar was conducted on 28/12/2020 on the Topic Combining microextraction with thin layer chromatography- image analysis for drugs and poisons: Present status and foreseeable future in analytical Toxicology. 	<ol style="list-style-type: none"> 1. Many of the postgraduates have shown interest to join for internship and to pursue in the PhD program 2. Dr. Rajeev Jain Senior scientist, CFSL Chandigarh highlighted newer techniques which we adopted. 60 participants.
Research Grants Applied	<ol style="list-style-type: none"> 1. FIST level 1 grant was applied for rupees 1 crore on the title “GCMS for analyzing the blood level of poison in acute poisoning cases in Tertiary care hospital”. 2. FIST Level 1 grant was applied for rupees 2 crores on the title “Estimation of Unintentional Poisoning Cases and their impact on the health Status of the Community at Manipal Poison Detection Center” 	<p>Applied in May 2020</p> <p>Applied in September 2021</p>
Research Publications	<ol style="list-style-type: none"> 1. Correlation of oxidative stress and antioxidant status with cholinesterase in organophosphorous poisoning cases. Current Trends in Toxicology Vol 17,2021 2. Devil’s trumpet poisoning: A case report. IJFCM 2021. 	
Collaborations	Estimation of Pesticides levels in the blood and Urine samples of Farmers of 8 villages of Karnataka in collaboration with KAPC	Ongoing
Consultancy/ Revenue	Rupees Five Lakh per year	

Final Review

Target	Results	Review
Phase 1	50 postgraduates and research scholars have actively participated in the webinar.	1
Phase 2	60 participants have attended the Webinar on “Combining microextraction with thin layer chromatography- image analysis for drugs and poisons: Present status and foreseeable future in analytical Toxicology”.	1
Phase 3	Hands-on training for postgraduate students of Forensic science.	4
Phase 4	Initiated a certificate course from our center in collaboration with Center of Clinical Forensics with a credit-based system. Initiated a Tox Board in collaboration with Department of Emergency Medicine, Paediatrics, Neurology, Medicine and Forensic Science.	2

Additional Information



Plaque Unveiling Ceremony of Center for Poison Information



Awareness program conducted to the farmers from our center



Webinar conducted by Center for Poison Information from the faculty of University of Kentucky

Name of the Centre: **Center for Emerging and Tropical Diseases (CETD)**

Coordinator:

Dr. Chiranjay Mukhopadhyay

Associate Dean and Professor,

Dr. TMA Pai Endowment Chair on ‘Emerging Bacterial Pathogens’

Department of Microbiology,

Kasturba Medical College, Manipal,

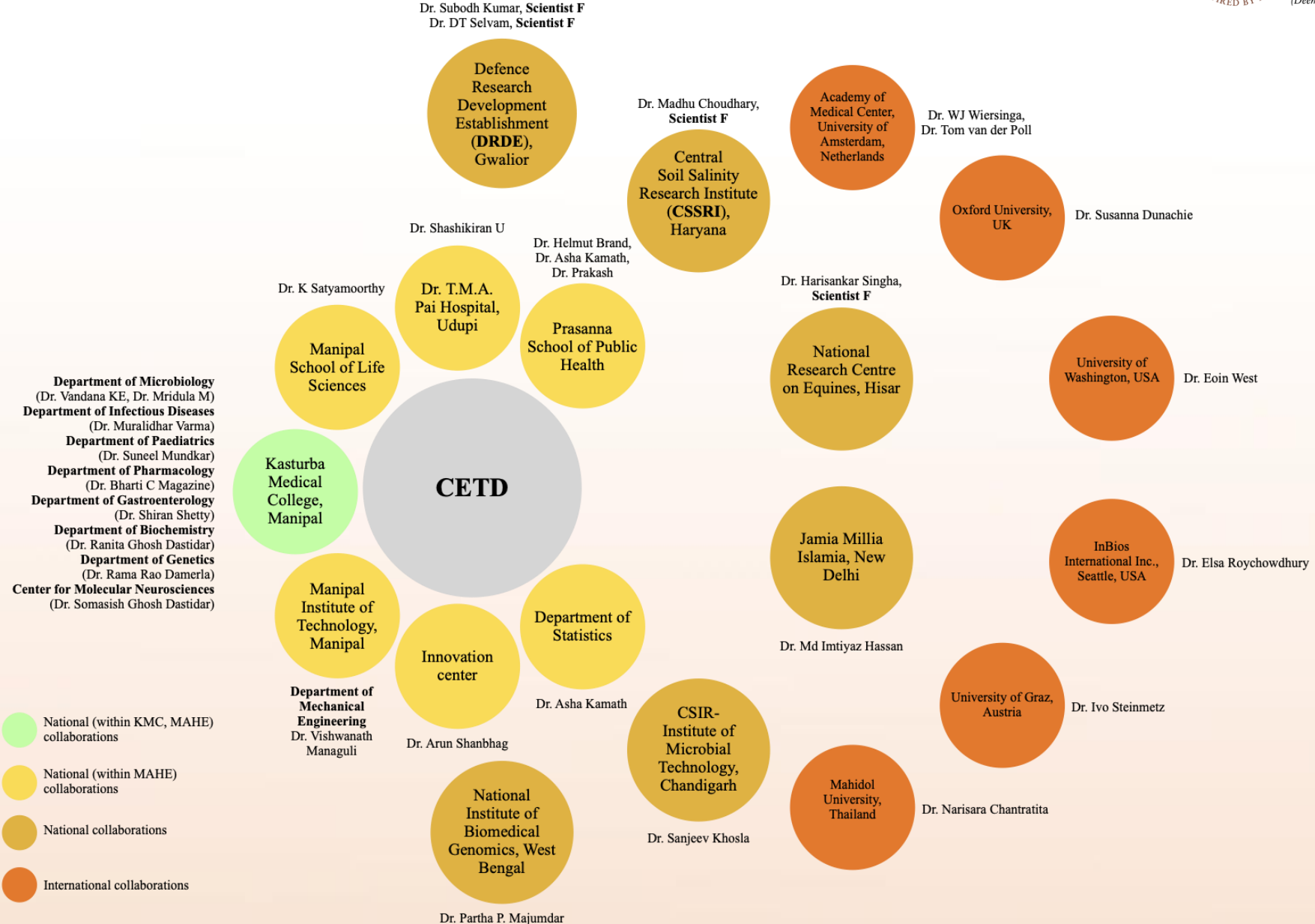
Manipal Academy of Higher Education, Manipal

Evaluation Period: Phase IV (4th Year)

Centre Overview

Centre	
Approval Date	01/09/2017
Coordinator	Dr. Chiranjay Mukhopadhyay
Inception Date	01/09/2017
Term	04 Years
Reporting to	Pro-Vice Chancellor, MAHE, Manipal
Statement	
Vision	Cross-cutting research in the field of Emerging and Tropical diseases to guide public policy
Mission	<ul style="list-style-type: none">• Act as a center of reference in the country for selected emerging and tropical diseases• Improve surveillance and awareness among the population regarding selected emerging and tropical diseases
Objectives	<ol style="list-style-type: none">1. To be the unified voice on common issues regarding emerging, re-emerging and neglected tropical diseases to achieve our goals2. To enhance our community of practice through member engagement, learning and sharing knowledge3. To prepare a Comprehensive framework for disease management and prevention

Members and collaborations



Key stakeholders

1. University of Amsterdam's Faculty of Medicine, Netherlands (AMC-UvA)
2. Institute of Hygiene, Microbiology and Environmental Medicine (IHME), the Medical University Graz, Austria
3. Mahidol University, Bangkok, Thailand
4. Department of Immunology and Infection, London School of Hygiene & Tropical Medicine
5. University of Oxford, UK
6. Fredrich Loffler Institute, Germany
7. Doherty Applied Microbial Genomics, Department of Microbiology and Immunology, University of Melbourne, Australia
8. InBios International Inc., Seattle, USA
9. Biomerieux, France
10. Central Soil Salinity Research Institute Karnal, Haryana, (CSSRI) India
11. Defence Research & Development Establishment (DRDE), Gwalior, India
12. National Research Center on Equines Haryana (NRCE), India
13. Vitas Pharma, Hyderabad, India

Planned activities (contd.)

Received	13 – 18 months	<ol style="list-style-type: none"> 1. To start Community AMSP program 2. To sign MoUs with eminent Universities 3. To apply for international collaborative grant awards 4. To apply for national prestigious grants 5. To enrol PhD students 	<ol style="list-style-type: none"> 1. Started ‘Antibiotic Guardianship and Education’ (AGE) Program 2. Signed MoU with University of Oxford and Academic Medical Centre, University of Amsterdam 3. Applied for Wellcome DBT India Alliance Senior Clinical Research Fellowship Grant in May 4. Applied for SERB grant in June 5. 3 PhD students enrolled in July session
Phase 4	19 – 24 months	<ol style="list-style-type: none"> 1. To apply for BIRAC grant – COVID Innovation (Academia – Industry Partnership) 2. To apply for R0 Grant (NIH), in Collaboration with University of Washington 3. To apply for community AMSP 4. Include RLS Fellow for Melioidosis Research 5. To apply for student’s research project grants 	<ol style="list-style-type: none"> 1. Initiate collaboration with Philips, Chennai IIT, Planystech for CMON COVID Kiosk Project 2. Start Up – Biobreath Health Pvt. Ltd. 3. Neuromelioidosis Project proposal – Shortlisted by ICMR 4. Received ICMR-Pfizer Grant on AMSP 5. Received ICMR grant on Melioidosis – Gut Microbiome 6. Received VALIDATE Grant (1 out of 8 in the world) 7. Applied for 3 more National grants and 2 International Grants (including 1 NIH grant) 8. Applied for 4 Royal Society of Tropical Medicine and Hygiene (RSTMH) Grant by PhD students 9. Applied for SERB-CORE grant for Melioidosis Research by PDF

Details of the Process and Outcome

Key Activities	Details of the Process	Measurable Outcome
Certificate Course	Planning to start a Certificate Course on Emerging and Tropical Infectious Diseases (1 year)	Draft in process
Workshops/ Conference	<ul style="list-style-type: none"> Invited as Speaker in CIDSCON, HISICON, MICROCON and ASEAN conferences Attended CIDSCON, MICROCON, WMC, EMC, SAMC as Invited Speaker Holding IAMM PG Assembly in Manipal 	Planned for collaborations with other South Asian countries regarding AUF study, MARS-INDIA project with AMC-UvA and study on ONE HEALTH ZONOSIS program with Fredrich Loffler Institute, Germany and University of Sydney, Australia
Research Grants Applied	<ul style="list-style-type: none"> Applied for Melioidosis (ICMR) Study DST – Gut microbiome – Sarcopenia COVID-19 Innovation Grant – Applied Biodesign Project (as lead from KMC) – Applied to DST MARS-India Project on Sepsis (with AMC, Amsterdam) GRAM Project (with Oxford University) OMICS-task force (ICMR) – Proposal on Neuromelioidosis 	<ul style="list-style-type: none"> Melioidosis Grant – Received Brucellosis Grant – Sanctioned by DRDE AMR, HAI, VAP, SSI and AMSP (5 Grants) - Sanctioned by ICMR/CDC India/AIIMS MARS-India – Received GRAM Project – In the process Neuromelioidosis Omics proposal – Shortlisted SERB-CORE Grant - waiting for the result Inbios Clinical Study (1,00,000 USD) - waiting to start

Details of the Process and Outcome (contd.)

Research Publications	26 published [PLOS One, PLOS NTD, IJMS, Tropical Doctor, Tropical medicine and international health, Indian Journal of Medical Microbiology, Journal of Global antimicrobial resistance, Review in Tropical Medicine and Infectious Diseases, JMM, The Foot, BMC Medicine]	<ul style="list-style-type: none"> • Published in Scopus and Web of Science Indexed journals • 8 in process • BMC Medicine (IF – 9.088)
Additional Collaborations	<ul style="list-style-type: none"> • AIIMS • ICMR • Institute of Hygiene, Microbiology and Environmental Medicine (IHME) • CDC India • University of Melbourne 	
Consultancy/ Revenue	8 Grants received on Emerging and Tropical Diseases till now Expected – 5-6 grants in the next 2 years	Total amount – 7.68 Crores received Expected – another 3-4 Crores in the next 2 years

Final review

Target	Results	Review
Phase 1	<p>Maintaining the objectives timeline</p> <p>Applying for collaborations, grants</p> <p>Publications done, Submitted for more Publications</p> <p>Enhancing network</p>	<p>More PhD programs to start</p> <p>Waiting for Suitable collaborators to respond</p> <p>Waiting for Grant calls</p>
Phase 2	<p>Planning for Certificate Course in Emerging Tropical Diseases</p> <p>Applying for Collaborations and Funds</p> <p>Planning to conduct training and workshops for Diagnosis and Clinical Management of Melioidosis and other Emerging Tropical Diseases</p>	<p>Applied for funding</p> <p>Awaiting further grant calls</p>
Phase 3	<p>International Collaboration</p> <p>International and National Grants</p> <p>PhD Scholars with International exchange</p>	<p>Publications and workshops</p> <p>MoUs</p> <p>Projects related to Public Health</p>
Phase 4	<p>One Health Research</p> <p>Open Laboratory Set up</p> <p>Expanded Research on Neglected Tropical Diseases</p>	<p>MoUs</p> <p>International Recognition</p> <p>Reviews and Grants</p>

Additional information – I (funded instruments)

Equipments <i>Procured</i>	Research Project	Funding Agency
Refrigerator- Celfrost Upright chillers	Capacity Building and Strengthening of Hospital Infection Control to Detect and Prevent Antimicrobial Resistance in India	ICMR/AIIMS
Densi check Instrument		
Incubator		
Desktop		
Real Time PCR (Rotor Gene Q)- Qiagen	Regional Center for Antimicrobial Resistance Surveillance Network	ICMR

Equipments <i>to be procured</i>	Research Project	Funding Agency
Lyophilizer	Capacity Building and Strengthening of Hospital Infection Control to Detect and Prevent Antimicrobial Resistance in India	ICMR/AIIMS/CDC INDIA
Ultra Deep Freezer		
Computer	Initiating Antimicrobial Stewardship activities in hospitals in India.	ICMR
Computer	Development and Validation of an Electronic Surveillance System for SSI Developing During Hospital Stay and After Discharge	ICMR

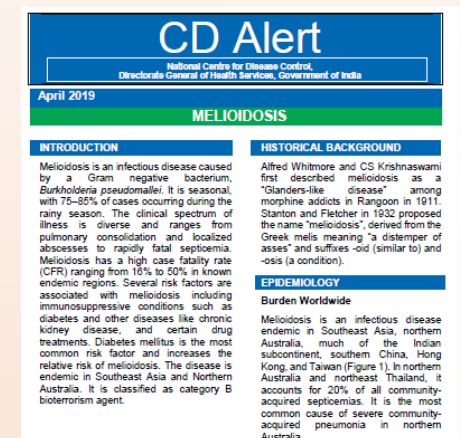
Additional information – II (Manpower)

Theme	Project/Thesis Title	Manpower involved
Health care associated infection and Infection Prevention	Implementing AMSP in Indian hospitals (ICMR)	1 Research Associate
	Capacity Building and Strengthening of Hospital Infection Control to Detect and Prevent Antimicrobial Resistance in India (CDC/ICMR)	1 Senior Research Fellow, 2 Staff Nurse, 2 Lab Technician
	SSI (ICMR)	1 Research Nurse
	VAP (ICMR)	1 Research Nurse
	Regional Center for ICMR's AMR surveillance network	1 Lab Technician, 1 Data entry operator
Emerging and Tropical Infectious Diseases	Brucellosis	1 ICMR Senior Research Fellow (PhD Scholar)
	Melioidosis	
	<ul style="list-style-type: none"> Environmental Melioidosis Melioidosis and Gut Microbiome Melioidosis – Molecular and Advanced Research Melioidosis (VALIDATE, Oxford University) 	1 ICMR Senior Research Fellow (PhD Scholar) 1 PhD Scholar 1 PDF and 1 Ramalingaswamy fellow 1 PhD Scholar
Sepsis	AMR and AMSP	
	<ul style="list-style-type: none"> Antimicrobial Resistance (AMR) (ICMR) AMSP (ICMR-Pfizer) program 	1 PhD Scholar 1 Scientist C, 1 Research Nurse
Sepsis	<ul style="list-style-type: none"> Molecular Diagnosis and risk stratification of sepsis in India 	1 PhD Scholar, 1 Research Nurse, 1 Technician and 1 data Entry operator
	<ul style="list-style-type: none"> Sepsis and biomarkers (IMF) 	1 PhD Scholar
Total Staff		24

Additional information – III (Achievements)

Leader in Melioidosis Research in India and South Asia

- Highest publications in Melioidosis in India
- Established an **ICMR Referral Laboratory** for melioidosis in India to diagnose the disease and recommend treatment
- **Expert Member of Government of India (NCDC, New Delhi) and Parliament Committee** to give opinion on Melioidosis related queries
- Supervised release of **1st 'CD ALERT'** from NCDC, India, on Melioidosis
- **Founder - Executive member of International Melioidosis Network (IMN) since 2015**



Additional information – III (Achievements)

- **EMBO Short-Term Fellowship** from Heidelberg, Germany by Mr. Tushar Shaw (PhD Scholar) to visit University of Graz and work under Dr. Ivo Steinmetz (Director)
- **Collaboration with DRDE, Gwalior:** Ms. Sudipta Patra (PhD Scholar) stayed for 1 month to perform 2-D Gel Electrophoresis for her PhD thesis work under Dr. DT Selvam
- **Foreign Faculty Visit:** Dr. W. Joost Wiersinga, Dr. Tom van der Poll from University of Amsterdam for MARS-INDIA Project on SEPSIS
- **Collaborations with Menzies School of Health Research, Darwin, Australia; Doherty Applied Microbial Genomics, and The Royal Hospital, Melbourne, Australia** for WGS
- **Senior Research Fellowship awarded** to Mr. Tushar Shaw (PhD Scholar) and Ms. Sudipta Patra (PhD Scholar) from Indian Council of Medical Research, New Delhi.
- **Travel Grant for PhD student:** Tushar Shaw (PhD Scholar) has visited University of Graz, Austria for a second time for his PhD thesis Work; attended WMC in Cebu, Philippines; SAMC in Sri Lanka

Additional information – IV (International collaborators)



Dr. Tom van der Poll
Professor, Internal Medicine,
Head of the Center of Experimental
and Molecular Medicine and Chair of
the Division of Infectious Diseases,
University of Amsterdam,
Netherlands



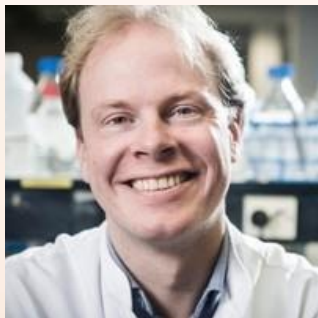
Dr. Susanne Dunachie
Associate Professor,
Honorary Consultant in
Infectious Diseases and
Medical Microbiology,
Clinical Microbiologist,
Oxford University, UK



Dr. Narisara Chantratita
Associate Professor
(Microbiology), Department
of molecular biology and
immunology, Faculty of
Tropical Medicine, **Mahidol**
University, Thailand



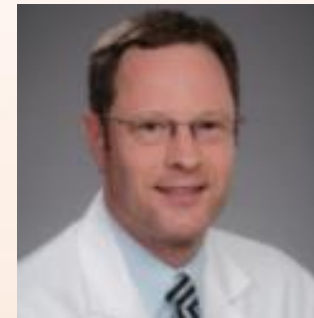
Dr. Catrin Moore
Research Group Leader
in the Global Burden of
Antimicrobial
Resistance, **Oxford GBD**



Dr. WJ Joost
Professor,
Chair in Internal Medicine,
specializing in translational
infectious diseases,
University of Amsterdam,
Netherlands



Dr. Ivo Steinmetz
Director and Professor of
Immunology, **Medical**
University of Graz, Austria



Dr. Eoin West
Adjunct Professor (Global
Health); Professor
(Medicine - Pulmonary,
Critical Care and Sleep
Medicine), **University of**
Washington, Seattle



Dr. David AB Dance
Centre for Tropical
Medicine and Global
Health, **University of**
Oxford, UK; Clinical
Microbiologist, LOMWRU,
Laos

Additional information – V

(additional funding details: projects under implementation)

S.no.	Title	Cost in Lakh	Duration	Role	Agency
1	<u>ICMR TASK FORCE Project</u> ‘MISSION’ : A Multi-Centric Capacity Building Initiative to Strengthen the Clinical and Laboratory Detection of Melioidosis in India with special fOcus on the North Eastern States	130385242.00	3 years	PI	ICMR
2	Sepsis-induced stress and Network Analysis on Pathogen Expression of stress-combat genes: the SNAPE study	21,49,848.00	3 years	PI	ICMR
3	Understanding the effect of diabetes mellitus on immunometabolic response to <i>Burkholderia pseudomallei</i> in Indian patients	59,98,125.00	3 years	Co-PI	ICMR
4	Development and evaluation of indirect ELISA using recombinant Omp25 protein of <i>Brucella melitensis</i> for rapid and differential diagnosis of human brucellosis	43,96,476.00	3 years	Co-I	ICMR
5	Understanding the relationship of host gut microbiota and host immune response to patients' outcome in Melioidosis	46,17,900.00	2020-2023	PI	ICMR, India
6	Regional Center for Antimicrobial Resistance Surveillance Network	50,00,000.00	2018-2023	PI	ICMR, India

Additional information – V

(additional funding details: projects under implementation)

S.no.	Title	Cost in Lakh	Duration	Role	Agency
7	Molecular diagnosis and risk stratification of sepsis in India (MARS-India)	12,33,409.00	2018-2023	PI	AMC Medical research B V, Netherlands
8	Initiating Antimicrobial Stewardship activities in hospitals in India	12,55,232.00	2018-2023	CO-PI	ICMR, India
9	Expansion of antimicrobial stewardship (AMSP) and infection control program (ICP) of ICMR in secondary care hospitals	30,46,930.00	2020-2023	PI	ICMR, India

Additional information – V

(additional funding details: projects completed in the last 5 years)

S.no.	Title	Cost in Lakh	Duration	Role	Agency
1	Assessment of the expression of bacterial proteins and its correlation with the clinical presentations of acute and chronic form of brucellosis"	9,60,000	2 years (2017-2019)	PI	DRDE, DRDO, Gwalior
2	Clinical epidemiology and outcomes of bacterial sepsis among hospitalized patients in a resource limited settings in costal southern India: A prospective observational study	2,00,000	1 year (2016-2017)	PI	Manipal – McGill Centre for Infectious Diseases, MAHE
3	Emerging Bacterial Tropical Diseases, with special focus on melioidosis research	20,00,000	2 years (2015-2017)	PI	Dr. TMA Pai Endowment Chair, MAHE
4	VALIDATE- "Characterising the cellular immunity and metabolic response to Mycobacterium tuberculosis and Burkholderia pseudomallei in Indian patients for vaccine design".	29,75,053.00	2019-2020	PI	Medical Research Council, UK
5	Capacity Building and Strengthening of Hospital Infection Control to detect and prevent antimicrobial resistance in India	99,49,080.00	2016-2021	PI	CDC-ICMR
6	Development and Validation of an Electronic Surveillance System for Surgical Site Infections Developing During Hospital Stay and After-Discharge: A Multi-Centric Study	49,00,000.00	2018 - 2021	PI	ICMR, India
7	Antigen Detection Assay for Diagnosis of Melioidosis	88,24,453.00	2019 - 2021	Co-I	InBios International Inc, 562 1st Avenue South, Suite 600, Seattle, WA 98104 USA.

Name of the Centre:

Coordinator: **Satish Kumar Adiga**

Evaluation Period: **January to December 2020**



**Centre for
Fertility Preservation**

Centre Overview

Centre	
Approval Date	26/11/2015
Coordinator	Satish Kumar Adiga
Inception Date	01/12/2015
Term	02 + 02 + 02 Years
Reporting to	The Dean, KMC
Statement	
Vision	To function as resource and reference centre in the field of “Oncofertility”
Mission	To establish state of the art facility to provide clinical service and research
Objectives	<ol style="list-style-type: none"> 1. To provide fertility preservation care to pediatric childhood cancer patients and young adults 2. To serve as a national resource for fertility preservation 3. Knowledge dissemination and training of specialists 4. Facilitate international collaborations 5. Undertake cutting edge research through extramural funding

Members and Stakeholders

Advisors

Pro Vice Chancellor (health Science); Dean, KMC Manipal; Medical Superintendent KH

Consortium members:

- Dr Karthik S Udupa (Medical Oncologist)
- Dr Ananth Pai (Medical Oncologist)
- Dr Naveen Salins (Chair, Tumour board)
- Dr Vasudev Bhat (Paediatric Oncologist)
- Dr Krishna Sharan (Radiation Oncologist)
- Dr Vijay Kumar (Paediatric Surgeon)
- Dr Naveen Kumar (Surgical Oncologist)
- Dr Pratap Kumar (Reproductive Endocrinologist)
- Dr Prashant Adiga (Reproductive Endocrinologist)
- Dr Anjali S Mundkur (Reproductive Endocrinologist)
- Dr Padmaraja Hegde (Andrologist)
- Dr Shubhashree Uppangala (Clinical Embryologist)
- **Dr Satish Kumar Adiga (Centre Coordinator)**
- **Ms Prathima Tholeti (Co-coordinator)**

Key Stakeholders Involved

- Clinical departments providing cancer care
- Pediatric/adult cancer patients
- Men needing fertility preservation
- Women needing egg and embryo banking
- Oncofertility consortium, Chicago, USA
- University of Muenster, Germany
- University of Naples, Italy
- ICMR (funding agency)
- SERB (DST)
- Alexander von Humboldt Foundation, Germany

Planned Activities

Milestones	Review Period	Planned Activity	Action Taken
Phase 1	1 – 6 months	Establish clinical service: optimize technique, ethical approval, start service Explore funding; explore collaboration	Established clinical service for prepubertal testicular tissue cryopreservation, ovarian tissue, oocyte and embryo banking. Funding received, collaboration established
Phase 2	7 – 12 months	To continue clinical service; continue explore funding; Introduce M.Sc. & PhD projects	M.Sc. & PhD Projects initiated (6-8 projects)
Phase 3	13 – 18 months	Expand service to other parts of the country Strengthen research activities	TMH (Mumbai) NIRRH (Mumbai) 5 major projects being undertaken
Phase 4	19 – 24 months	Strengthen networking, knowledge dissemination through conference, workshops International recognition of MSc program	Faculty exchange with UK and USA in the field of Oncofertility Innovative grant (Italy-UK-India) from Merck to develop bioreactor for ovarian tissue cryobanking Patient education and awareness Healthcare provider awareness, national and international platforms

Details of the Process and Outcome in 2020

Key Activities	Details of the Process	Measurable Outcome
Certificate Course	ASSET program (Merck) (INR 5,00,000) ISAR-National Training Program (INR 1,00,000) CARE (Merck Foundation program) (86,00,000)	Revenue approximately INR 1,00,00,000 per year
Research Grants received	SERB-III year (INR 49,00,000) SERB- III (INR 24,00,000) ICMR –2 & 3 year 2 projects (INR 1,00,00,000) Minor industry grants (2,00,000)	Total grant in the field of fertility preservation INR 2,16,00,000
Publications	16 (2020)	14 Q1
Collaborations (New)	NIRRH (Mumbai) University of Maribor, Slovenia University of Naples University of Edinburgh	Joint project, PhD student exchange Joint publications (two) Technology transfer, student exchange grant Joint publication
Consultancy	SDM Dharwad, Aster-MIMS, Kotakkal, Kerala	
Industry partnership	Indira IVF	

Grants

1. Human CORTIcal tissue in vitro CULTure to obtain mature oocyte using novel bioreactors (CortiCult), University of Naples, Italy (Euro 6050)
2. Fertility preservation in cancer affected prepubertal girls: Experimental approaches to address the cryosusceptibility of immature oocytes in relation to the ovarian age (ICMR, INR48,00,000).
3. Impact of embryological interventions on functional, genetic and epigenetic integrity of gametes and embryos in ART (ICMR, INR49,00,000)
4. Impact of maternal diabetes on pre-implantation embryo development: Non-invasive approach to assess embryo quality using oxygen consumption (SERB, INR 46,50,000)
5. Fertility preservation in cancer affected prepubertal boys: an experimental approach using testicular tissue cryopreservation (ICMR, INR 49,00,000).
6. Development of human embryo viability biomarker diagnostics for elective embryo transfer to improve pregnancy outcome potential application in ART clinic (IMPRINT Grant) with IISC, Bangalore



Oncofertility: Knowledge, Attitudes, and Barriers Among Indian Oncologists and Gynecologists

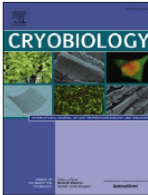
Prathima Tholeti, MSc,¹ Shubhashree Uppangala, PhD,¹ Vasudeva Bhat, MD, DM,²
Karthik S. Udupa, MD, DM,³ Vijay Kumar, MD, MCh,⁴ Shobhana Patted, MD,⁵
Pandiyar Natarajan, MD,⁶ Norah Spears, PhD,⁷ Guruprasad Kalthur, PhD,⁸
Teresa K. Woodruff, PhD,⁹ and Satish Kumar Adiga, PhD¹



Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

Cryobiology

journal homepage: <http://www.elsevier.com/locate/cryo>



**Germinal stage vitrification is superior to MII stage vitrification in
prepubertal mouse oocytes**

Akshatha Daddangadi^a, Shubhashree Uppangala^a, Guruprasad Kalthur^a, Riccardo Talevi^b,
Satish Kumar Adiga^{a,*}

^a Department of Clinical Embryology, Kasturba Medical College Manipal, Manipal Academy of Higher Education, Manipal, 576 104, India

^b Dipartimento di Biologia, Università di Napoli "Federico II", Complesso Universitario di Monte S Angelo, Napoli, Italy

News paper articles

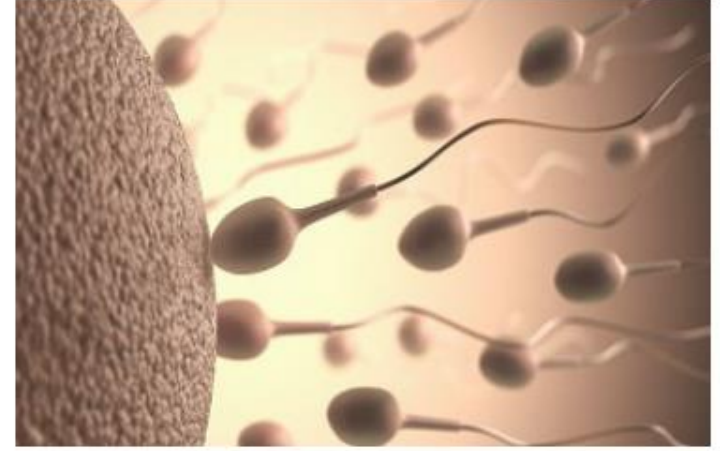


ಅರಿವೇ ಗುರು

ಡಾ| ಸತೀಶ್ ಕುಮಾರ್ ಅಡಿಗ
ಕೊಆರ್ಡಿನೇಟರ್, ಸೆಂಟರ್ ಫಾರ್
ಫರ್ವರ್ಡ್ ಪ್ರಿನ್ಸಿಪಲ್ಸ್
ಕೆಎಂಪಿ ಆಸ್ಪತ್ರೆ, ಮಣಿಪಾಲ

ಸಂತಾನೋತ್ಪಾದನೆ ಎಂಬುದು ಅನೇಕ ದಂಪತಿಗಳಿಗೆ ಒಂದು ನೈಸರ್ಗಿಕವಾದ ಅನುಭವ, ಪ್ರಕ್ರಿಯೆ. ಆದರೆ ಕೆಲವು ದಂಪತಿಗೆ ಗರ್ಭಧಾರಣೆ ಕಷ್ಟವಾಗಬಹುದು. ಪುರುಷನೊಬ್ಬನ ಸಂತಾನೋತ್ಪಾದನೆಯ ಸಾಮರ್ಥ್ಯವು ಆತನಲ್ಲಿ ಉತ್ಪಾದನೆಯಾಗುವ ವೀರ್ಯದ ಪ್ರಮಾಣ ಮತ್ತು ಗುಣಮಟ್ಟದ ಜತೆಗೆ ನೇರವಾದ ಸಂಬಂಧವನ್ನು ಹೊಂದಿದೆ. ಲೈಂಗಿಕ ಸಂಪರ್ಕದ ಸಂದರ್ಭದಲ್ಲಿ ಹೊರಬೀಳುವ ವೀರ್ಯಾಣುಗಳ ಪ್ರಮಾಣ ಕಡಿಮೆ ಇದ್ದಲ್ಲಿ ಅಥವಾ ಅವುಗಳ ಗುಣಮಟ್ಟ ಕಳಪೆಯಾಗಿದ್ದಲ್ಲಿ ಸಂಗಾತಿ

ವೀರ್ಯ ಬ್ಯಾಂಕಿಂಗ್ ಪುರುಷ ಪ್ರಜನನ ಸಾಮರ್ಥ್ಯಕ್ಕೆ ವಿಮೆ



ಕಷ್ಟಸಾಧ್ಯವಾಗುತ್ತದೆ. ಇದಲ್ಲದೆ, ವೀರ್ಯದ ಡಿಎನ್‌ಎ ಗುಣಮಟ್ಟವೂ ಕ್ಷಯಿಸುತ್ತದೆ; ಇದರಿಂದಾಗಿ ವಂಶವಾಹಿ ರೂಪಾಂತರಗಳು ಭ್ರೂಣಕ್ಕೆ ವರ್ಗಾವಣೆಯಾಗುವ ಸಾಧ್ಯತೆಗಳು ಹೆಚ್ಚಿದ್ದು ಶಿಶುವಿನಲ್ಲಿ ಬೆಳವಣಿಗೆಗೆ ಸಂಬಂಧಿಸಿದ ತೊಂದರೆಗಳು ಉಂಟಾಗುತ್ತವೆ. ವೀರ್ಯದ ಕ್ರಯೋಪ್ರಿಸರ್ವೇಶನ್ ಮತ್ತು ಬ್ಯಾಂಕಿಂಗ್ - ಪುರುಷ ಸಂತಾನೋತ್ಪತ್ತಿ ಸಾಮರ್ಥ್ಯವನ್ನು ಕಾಪಿಡುವ ಒಂದು ವಿಧಾನ - ಪಾಶ್ಚಾತ್ಯ ದೇಶಗಳಲ್ಲಿ ವ್ಯಾಪಕವಾಗಿ ಸ್ವೀಕೃತವಾಗುತ್ತಿರುವ ಮತ್ತು ಬೆಂಬಲ ಗಳಿಸುತ್ತಿರುವ; ಭಾರತದಲ್ಲಿಯೂ ಇತ್ತೀಚೆಗೆ

ಚಿಕಿತ್ಸೆಯಿಂದ ಭವಿಷ್ಯದ ಸಂತಾನೋತ್ಪತ್ತಿ ಸಾಮರ್ಥ್ಯದ ಮೇಲೆ ಪ್ರತಿಕೂಲ ಪರಿಣಾಮ ಉಂಟಾಗಬಹುದು. ಹೀಗಾಗಿ ಇಂತಹ ಪುರುಷರು ಕೂಡ ವೀರ್ಯ ಬ್ಯಾಂಕಿಂಗ್ ಮಾಡಿಸಿಕೊಳ್ಳುತ್ತಾರೆ. ಹೀಗೆ ವೀರ್ಯ ಬ್ಯಾಂಕಿಂಗ್‌ನ ಕಾರಣಗಳು ಅಸಂಖ್ಯವಾಗಿವೆ. ಆದರೆ ಒಂದಂತೂ ನಿಜ; ಭವಿಷ್ಯದಲ್ಲಿ

ಉಂಟಾಗಬಹುದಾದ ತಮ್ಮ ಸಂತಾನೋತ್ಪತ್ತಿ ಸಾಮರ್ಥ್ಯ ನಷ್ಟದಿಂದ ಪಾರಾಗುವ ಅವಕಾಶಗಳ ಬಗ್ಗೆ ಪುರುಷರು ಅರಿವನ್ನು ಹೊಂದಿದ್ದಾರೆ ಮತ್ತು ಅಂತಹ ಅವಕಾಶಗಳಲ್ಲಿ ಸಂತಾನೋತ್ಪತ್ತಿ ಸಾಮರ್ಥ್ಯ ರಕ್ಷಣೆಯ ಉತ್ತಮ ಅವಕಾಶವಾಗಿ ವೀರ್ಯ ಬ್ಯಾಂಕಿಂಗ್ ನಮ್ಮ ಮುಂದಿದೆ.

ವೀರ್ಯ ಬ್ಯಾಂಕಿಂಗ್: ಯಾವಾಗ?

■ ವಿಳಂಬಿತ ತಂದೆತನ: ಶಿಕ್ಷಣ, ಉದ್ಯೋಗ ಮತ್ತು ವೈಯಕ್ತಿಕ ಮಹತ್ವಾಕಾಂಕ್ಷೆ ಹಾಗೂ ಸ್ವಾತಂತ್ರ್ಯದ ಇತರ ಅವಕಾಶಗಳನ್ನು ಸಾಧಿಸಿಕೊಳ್ಳುವುದಕ್ಕಾಗಿ ಸಮಾಜದಲ್ಲಿ ವಿವಾಹ ಮತ್ತು ಸಂತಾನೋತ್ಪತ್ತಿಯನ್ನು ಮುಂದೂಡುವುದು ಸಾಮಾನ್ಯವಾಗಿದೆ. ಈ ಪದ್ಧತಿಯು

Collaborating institutes & Centers



UNIVERSITÀ DEGLI STUDI DI NAPOLI
FEDERICO II



NIRRH



Any other relevant information



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Global Oncofertility Consortium Meeting March 2021

Speakers

Click on images for bios



Francesca E. Duncan, PhD
Northwestern University
Conference Co-Chair



Lauren Ataman-Millhouse, MA
Northwestern University
Conference Co-Chair



Satish Kumar Adiga, PhD
Kasturba Medical College
Access to fertility preservation care in India



Antoinette Anazodo, MD, PhD
Future Fertility
The Development and Evaluation of a Reproductive Survivorship Patient Reported Outcome Measure



Leslie Appiah, MD
University of Colorado
Reproductive Late Effects in Adolescent and Young Adult Survivorship



María Bourlon, MD
Instituto Nacional de Ciencias Médicas y Nutrición Salvador Zubirán
Current status of Oncofertility in Mexico



Nonso Daniels
Ekocorp Plc (Eko Hospitals)
Oncofertility in Nigeria: Situation Report



Marie-Madeleine Dolmans, MD, PhD
Université Catholique de Louvain
OTC and live births



Prathima Tholeti, Co-coordinator, CFP, secured Oncofertility scholarship from Oncofertility Consortium, USA

RBMO



REVIEW

Fertility preservation during the COVID-19 pandemic: mitigating the viral contamination risk to reproductive cells in cryostorage



BIOGRAPHY

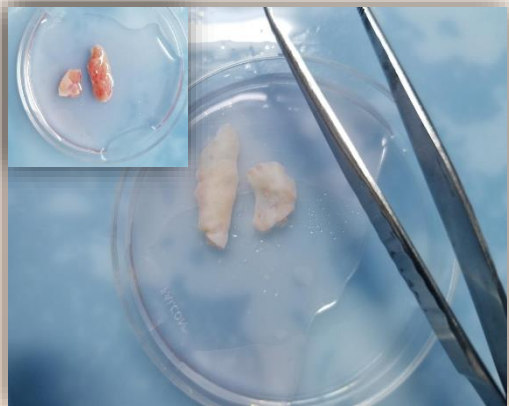
Satish K. Adiga is Professor and Head of the ART Laboratory and Centre for Fertility Preservation at Manipal, India. His research interests are fertility preservation, preimplantation biology and non-invasive gamete and embryo selection.

Satish K. Adiga^{1,*}, Prathima Tholeti¹, Shubhashree Uppangala¹, Guruprasad Kalthur¹, Roberto Gualtieri², Riccardo Talevi^{2,*}

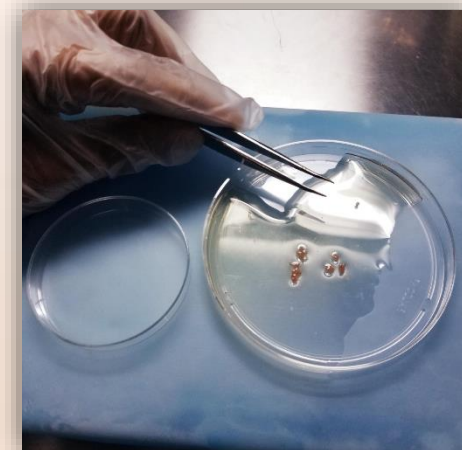
Facility:



Ovarian tissue manipulation for banking:



Pre pubertal testicular tissue manipulation for banking



Additional information

Proposed activities in 2021-22

1. Affiliating CFP with Japanese Society for Fertility Preservation (JSFP) & Asian Society for Fertility preservation
2. Academic partnership with St. Marianna University School of Medicine, Japan (student and faculty exchange, research collaboration)
3. Indo-Japan Fertility Preservation Conference 2022, Manipal
4. Japan-India Fertility preservation workshop, Kawasaki, Japan, 2022



Nao Suzuki MD, PhD

Centre for Molecular Neurosciences

Coordinator: Dr. Dinesh Upadhyia

Evaluation Period: 3 ½ years

Centre Overview

Centre	Centre for Molecular Neurosciences
Approval Date	01/05/2018
Coordinator	Dr. Dinesh Upadhya
Inception Date	19/10/2018
Term	3 1/2 years
Reporting to	Dean, KMC, Manipal

Statement	
Vision	Outstanding neuroscience research to help global community for better brain related and mental health.
Mission	To perform excellent advancement in neuroscience through innovative ideas, ultramodern techniques and collaborative work with resolution.
Objectives	<ol style="list-style-type: none">1. Undertaking research activities of regional, national and global importance2. Evaluating neuroscience problems with multiple perspectives and out of box ideas3. Undertaking national and international collaborations to accomplish planned tasks4. Training students to become proficient neuroscientists at the global level5. Organization of workshops, seminars, conferences and advanced training courses to gain and disseminate the experience

Members and Stakeholders

Team Members:

Mentors : Dr. Sharath K Rao

Members :

1. Dr. Dinesh Upadhya
2. Dr. Somasish Ghosh Dastidar
3. Dr. Pavan Agrawal

Total research scholars: 19

4 CSIR NET qualified, 1 DST INSPIRE

PhD registered candidates: 12

JRFs to register for PhD: 7

Interdepartmental PhD registered: 8

Key Stakeholders Involved

- Department of Biotechnology
- Science and Engineering Research Board
- Department of Science and Technology
- Indian Council of Medical Research

Planned Activities

Milestones	Review Period	Planned Activity	Action Taken
Phase 1	1 – 6 months	<ul style="list-style-type: none"> Setting up laboratories, procuring instruments for establishing functional workspace. Writing grant proposals for developing the Centre 	Laboratory setup for functional workspace completed, Few equipments have been procured.
Phase 2	7 – 12 months	<ul style="list-style-type: none"> Establishing national and international collaborations. Applying for national and international funding 	Developed more than 8 international collaborations INR 21 crore grants applied
Phase 3	13 – 18 months	<ul style="list-style-type: none"> Increasing publications from the Centre Conducting workshops and seminars 	24 research articles were already published. Hands-on training workshop conducted: 1 Seminars conducted: 8.
Phase 4	19 – 24 months	<ul style="list-style-type: none"> Initiating advanced courses Targeting high impact publications 	PhD training at CMN is gaining tremendous interest More than 10 impact factor publications: 5 More than 5 impact factor publications: 8

Details of the Process and Outcome

Key Activities	Details of the Process	Measurable Outcome
Certificate Course	Not started	
Workshops/ Conference	<ul style="list-style-type: none"> Hands on training in association with Aimil Bangalore 8 seminars 	<ul style="list-style-type: none"> 13 members (faculty+ PhD students) trained for Nanosight LM10 In association with KMC Research Cell
Research Grants Applied	21.44 crore	4..53 crore
Research Publications	Total: 24 With international collaborations: 18 With Industry: 1	Q1 – 15 Q2 – 6 Q3-2 Q4-1
Collaborations	Worldwide collaborations initiated	With 8 in US, 1 in UK, 1 in Australia, 1 in Brazil With multiple Indian Institutes
Consultancy/ Revenue	-	

Final Review

Target	Results	Review
Phase 1	Laboratory setup for functional workspace completed	Completed
Phase 2	2 RLS fellows have joined as faculty and centre expanded with a total of 19 research scholars	completed
Phase 3	Out of 24 publications, 18 publications with international collaborations 4.53 crore grants sanctioned 1 patent applied, 2 in application process	Completed
Phase 4	Advanced courses: Integrated PhD program could be planned	Requires MAHE support in the initial phase

Additional Information

Interactions:

Requirements:

- One laboratory technician
- Request for core funding support





Clinical Research Centre for Neuromodulation in Psychiatry

Coordinator: Dr Samir Kumar Praharaj

Evaluation Period: Phase I/Phase II/Phase III/Phase IV

Centre Overview

Centre	Clinical Research Centre for Neuromodulation in Psychiatry
Approval Date	December 1, 2020
Coordinator	Dr Samir Kumar Praharaj
Inception Date	December 1, 2020
Term	First
Reporting to	Dean, KMC Manipal

Statement	
Vision	To establish a centre in collaboration with other psychiatric institutes in India to do multi-center studies with inputs from expert consultants involving international researchers in neuromodulation
Mission	Research focus: a) disease modelling studies in psychiatric disorders using multi-modal data anchored on investigative neuromodulation techniques (TMS derived metrics combined with tDCS perturbation studies) with additional assessments using MRI, EEG & several other neurobiological measures, b) discovery of biomarkers predictive of differential clinical response to neuromodulatory interventions like ECT, TMS, tDCS through multi-centre studies
Objectives	<ol style="list-style-type: none"> 1) The centre will serve as a resource in understanding the neurobiological correlates of pharmaco-resistance in psychiatric diseases, and neurobiological effects of neuromodulation. 2) It will act as a resource centre to disseminate the knowledge and expertise to the professionals who are interested to take up cutting edge research in the area of neuromodulation in psychiatry. 3) To integrate the “big data” related to the previous two objectives for discovery of biomarkers that can predict differential clinical response to NIBS and thereby develop personalized, neuromodulatory interventions to impart “Precision Medicine”. 4) This CRC will interact with all stakeholders to facilitate the implementation of these neuromodulatory treatment approaches at different levels of health care delivery through standardized, scalable, pragmatic interventions. 5) This CRC will generate “clinician-scientists” in this area and conduct a regional/national level virtual training program to enhance the practice standards of neuromodulatory interventions in India. 6) After the completion of the research projects (mentioned above), the services of the centre (tDCS, rTMS etc.) can be offered to select patient populations with appropriate indications, who might benefit from these treatment modalities.

Members and Stakeholders

Team Members:

Coordinator: Dr Samir K. Praharaj

Clinical Collaborators: Dr Sonia Shenoy, Dr. Abhiram PN, Dr Kirtana M Pai, Dr. Prakashini K, Dr Rajagopal KV

Core staff: Dr Ashok J, Abhishikta Naik, Vidyashree MS

External Collaborators: Dr G. Venkatasubramanian, Dr Jagadisha Thirthalli, Dr Urvakhsh M Mehta, Dr Nishant Goyal, Dr Umesh S

International Advisory Committee: Dr. Michael Nitsche, Dr. Zafiris J. Daskalakis, Dr. Sukhwinder Shergill, Dr. Jerome Brunelin, Dr. Declan Mc Loughlin, Dr. Andy Greenshaw, Dr. Russ Greiner

Key Stakeholders Involved

- Patients with psychiatric disorders
- Healthy volunteers
- Postgraduate students
- Faculty

Planned Activities

Milestones	Review Period	Planned Activity	Action Taken
Phase 1	Dec 2020 to May 2021	Establishment of centre Purchase of equipment JRF recruitment and training	Done (there was delay in procurement of equipment because of covid)
Phase 2	June 2021 to Nov 2021	CRTP fellow recruitment Interrater reliability exercises Testing protocols	Done
Phase 3	Dec 2021 to May 2022	Harmonization of protocols Screening of subjects Pilot study	Ongoing
Phase 4			

Details of the Process and Outcome

Key Activities	Details of the Process	Measurable Outcome
Certificate Course	Higher training	3 core group members have joined PhD
Workshops/ Conference	Training in NIMHANS	All members underwent 1 week of training
Research Grants Applied	Already secured grant	DBT India Alliance funded the project
Research Publications	Several papers are being written	3 papers and 1 book chapter published 1 paper submitted, 4 protocol papers in process
Collaborations	With 2 premier institutes International	NIMHANS, Bengaluru and CIP, Ranchi Several institutes in advisory board
Consultancy/ Revenue	-	-

Final Review

Target	Results	Review
Phase 1	Center established JRFs recruited	
Phase 2	rTMS, ECT machines procured CRTP fellow recruited Training of JRFs and CRTP fellow	
Phase 3	Harmonization of protocols Pilot study	
Phase 4		



Additional Information

Photographs



TMS, ECT, tDCS

Additional Information

Publication list:

1. Venkatasubramanian G, Mehta UM, Goyal N, Praharaj SK, Sreekantiah U, Muralidharan K, Thirthalli J. Clinical research centre for neuromodulation in psychiatry: A multi-centre initiative to advance interventional psychiatry in India. *Indian J Psychiatry* 2021; 63(5): 503-505. doi: 10.4103/indianjpsychiatry.indianjpsychiatry_1180_20
2. Deshmukh A, Praharaj SK, Rai S, Kamath A, Upadhy D. Prefrontal Cortex Transcranial direct current stimulation Treatment in Alcohol dependence syndrome (PreCoTTA): Study protocol for a double-blind randomized sham-controlled trial. *Rev Recent Clin Trials* 2021; 16(4): 409-20. doi: 10.2174/1574887116666210806091448
3. Purohith AN, Chatorikar SA, Praharaj SK, Bhandary RP, Sharma PS. Efficacy and safety of maintenance electroconvulsive therapy (M-ECT) in treatment-resistant schizophrenia: a case series. *Asian J Psychiatry* 2022;73:103132. doi: 10.1016/j.ajp.2022.103132
4. Purohith AN, Vaidyanathan S, Udupa ST, Munoli RN, Agarwal S, Prabhu MA, Praharaj SK. Electroconvulsive therapy in patients with cardiac implantable electronic devices: a case report and systematic review of published cases. *J ECT*. 2022 Apr 26. doi: 10.1097/YCT.0000000000000851
5. Praharaj SK, Shenoy S, Abhiram PN. Role of somatic treatment in bipolar disorder. In: Menon V, editor. *Indian Psychiatric Update: Bipolar Disorders*. Indian Psychiatric Society South Zonal Branch; 2021, Volume 4, pp 205-18. ISBN: 9789355260789.

Additional Information

Grants:

DBT/Wellcome Trust India Alliance (IA/CRC/19/1/610005) Grant start date: Oct 1, 2020

Grant amount: Rs 9.99 crore for CRC (Rs 1.7 Crore for KMC, Manipal) + Rs 5 crore for CRTP fellowship (Rs 1 crore for KMC, Manipal for 2 CRTP fellows)

MAHE: UTN MAHE/ RG0119156

Collaborating institutes & Centers

Collaboration between NIMHANS Bengaluru, CIP Ranchi, KMC Manipal

International centers: Leibniz Research Center, Dortmund, Germany; CAMH, Toronto, Canada; Institute of Psychiatry, King's College, London, UK; Centre Hospitalier le vinatier, Lyon, France; Trinity College, Dublin, Ireland; University of Alberta, Edmonton, Canada

Centre for Indigenous Population

Coordinator: Dr Ranjitha S Shetty
Associate Professor
Dept. of Community Medicine
KMC, Manipal, MAHE

Evaluation Period: Phase IV

Centre Overview

Centre	
Approval Date	28/04/2018
Coordinator	Dr Ranjitha S Shetty
Inception Date	01/05/2018
Term	02 Years initially and extended for two more years from May 01,2020
Reporting to	HOD, Community Medicine, KMC, Manipal
Statement	
Vision	To enhance the overall health and well-being of indigenous population
Mission	To encourage and empower indigenous population to attain better quality of life
Objectives	<ol style="list-style-type: none"> 1. Need assessment of the community to identify challenges with regards to health and well being 2. Capacity building through targeted interventions 3. Identify and document traditions and best practices of this population with a view to preserving their customary culture

Members and Stakeholders

Team Members:

- Dr Ashwini Kumar
- Dr Sanjay M Pattanshetty
- Dr Sneha D Mallya
- Dr Ramprasad VP
- Dr Lena Ashok
- Dr Suma Nair

Key Stakeholders Involved

- Deputy Commissioner, Udupi
- District Health Officer, Udupi
- ITDP Office, Udupi
- Centre for Community Oncology, PSPH, MAHE
- Samagra Grameena Ashram, NGO
- Dr A V Baliga Hospital, Doddangudde, Udupi
- Tribal Community Leaders

Planned Activities

Milestones	Review Period	Planned Activity	Action Taken
Phase 1	1 –12 months	1. Stakeholders’ meeting organized by the Centre (19 th Sep 2018)	<ul style="list-style-type: none"> Assessment of socio-demographic and health status of Koraga community
Phase 2	12-18 months	Assessment of health and general needs of indigenous population	<ul style="list-style-type: none"> Organize health camps at regular intervals Carry out community based surveys
Phase 3	19 – 24 months	Planning detailed research projects focussing on indigenous populations of Udupi district Initiating a detailed research project among tribal community	<ul style="list-style-type: none"> A project proposal was submitted for funding to ICMR in January 2020
Phase IV	25-48 months	Carrying out the research project – completion of Objective 1 Preparing a project report from the community based survey carried out in Phase II	<ul style="list-style-type: none"> Research grant was utilized to carry out the study among PVTGs –Objective 1 completed A manuscript has been submitted to IJMR for the special edition on Tribal Health Research

Details of the Process and Outcome (Phase IV)

Key Activities	Details of the Process	Measurable Outcome
Certificate Course /Workshops/ Conference -Nil		
Research Grants Received	<p>1. Grant from ICMR (2021 -23) <i>Title of the project: Effectiveness of Healthcare Governance Model on the utilization of health care services among Particularly Vulnerable Tribal Group (PVTG) in Udupi district: A Cluster Randomized Controlled Trial; PhD Research study</i> One research assistant has been appointed</p>	<ul style="list-style-type: none"> • Perception of the PVTG towards specific aspects of health, health care services and its utilization. • Acceptance of health care services and improvement in its utilization
	<p>2. Seed Grant from MAHE (Oct 2021 –Sep 2023) <i>Title of the project: Nutritional status and its Determinants among Under-Five Children of a Particularly Vulnerable Tribal Group in Udupi District</i></p>	<ul style="list-style-type: none"> • Malnutrition among PVTG under-five children • Interventions to improve their nutritional status
Collaborations	District level stakeholders, Institutions of MAHE, NGO, Tribal community leaders, local panchayat	<ul style="list-style-type: none"> • Health status assessment • Tribal Community surveys • Capacity building
Research Publication	<p>Ghosh S, Pattanshetty SM, Mallya SD, Pandey D, Guddattu V, Kamath VG, Kabekkodu SP, Satyamoorthy K, Shetty RS. Cervical cytology and associated factors among tribal women of Karnataka, India. <i>PLoS One</i> 2021; 16(3): e0248963. https://doi.org/10.1371/journal.pone.0248963</p>	

Final Review

Target	Results	Review
Phase 1 (2018)	<ul style="list-style-type: none">• Collaborations with relevant stakeholders• Determining general & health needs of a PVTG	Reviewed during centre review presentation in 2018
Phase 2 (2019)	<ul style="list-style-type: none">• Collaborations with relevant stakeholders• One research publication from tribal health study• One PhD scholar enrolled• Received one travel grant from ICMR for presenting the ongoing tribal research work in a scientific meet organized by ICMR	Reviewed during centre review presentation in 2019
Phase 3 (2020)	<ul style="list-style-type: none">• One research publication from tribal health study• Initiated a detailed research study & proposal submitted to ICMR for funding	Reviewed during centre review presentation in June 2021
Phase 4 (2021)	<ul style="list-style-type: none">• One research publication from tribal health study• Received a research grant from ICMR – Two year grant• Received a seed grant from MAHE –Two year grant• Part of a ICMR funded study conducted among PVTG adolescents• One manuscript submitted to IJMR special issue on THR	Reviewed during centre review presentation in April 2022

Additional Information

ICMR Tribal Project –Data collection
in the field by the investigator



Name of the Centre: Centre for Clinical and Innovative Forensics

Coordinator: Dr Vinod C Nayak, KMC, Manipal

Centre Overview

Centre	Centre for Clinical Forensics
Approval Date	January 25 , 2018
Coordinator	Dr.Vinod C Nayak
Inception Date	February 1 , 2018
Term	2 years
Reporting to	Dean – Kasturba Medical College, Manipal

Statement	
Vision	To become a Center of distinction in the field of Clinical Forensics aiming to provide quality training to all the stake holders
Mission	To promote research, stake holder training, and consultation to law enforcement agencies
Objectives	<ul style="list-style-type: none"> • To Develop a strong network of trained stake holders in the area of clinical forensics • To Identify and explore emerging research issues in the field of clinical forensics and provide focus for such funded research • To facilitate knowledge dissemination among stake holders, practitioners, educators and students

Members and Stakeholders

Team Members:

- **Faculty and Staff of the Department of Forensic Medicine**

Key Stakeholders Involved:

- **Students**
- **Clinicians**
- **Nursing Staff**
- **Law enforcement agencies : Police and Judiciary**

1. Stakeholder Engagement

1. Workshop on Documentation in MLC cases
2. Workshop on Injury Identification
3. Documentation of Identification Marks
4. Awareness session on Nursing negligence
5. Awareness session on MLC identification for EMD
6. Awareness session on Medico Legal issues for T M A Pai hospital
7. Identity establishment for Interns
8. Reporting Injuries : Session for EMD interns
9. Documentation workshop for Casualty Interns
10. Medico Legal Awareness Session for Surgery Department

Stakeholder Engagement

11. Workshop on Evidentiary material collection for nurses of KH
12. Documentation of ID Marks for EMD interns
13. Injury documentation for Orthopedics Department
14. MLC Handing for critical care department
15. ID documentation session for EMD interns
16. Injury documentation for Casualty and Trauma nurses
17. Evidentiary material collection for Casualty staff
18. Workshop on designer drugs for public health officials , law enforcement agencies and narcotics bureau
19. Workshop on crime scene photography for Police
20. Orientation session on handling of medico-legal cases

Stakeholder Engagement

21. Awareness session on MLC documentation for emergency medicine interns
22. Medico-legal case series for orthopaedics department
23. Medico-legal case series for paediatrics department
24. Worksop on golden hour management in road traffic accidents for bus , auto and taxi drivers
25. Orientation session on handling of medico-legal cases for clinicians of Kasturba Hospital
26. Medico-legal case series
27. SPEAR : Hands on training workshop for police, lawyers and medical officers
28. Training for police officers on handling drug abuse
29. High intensity drug trafficking area investigation workshop at Mangalore airport
30. Orientation session for postgraduates for handling medico-legal cases
31. Certification in Cause of Death in Covid19 Cases

32. Ready Reckoner of Narcotics & Psychotropic Substances

33. Decoding India's Drug Laws : Nasha Mukth Udupi Abhiyan



Vice-Chancellor of Manipal Academy of Higher Education H. Vinod Bhat releasing a 'Ready Reckoner of Narcotics and Psychotropic Substances' at a function to mark the International Day against Drug Abuse and Illicit Trafficking in Manipal on Wednesday.





Vijay Karnataka Anti Drug Campaign

ವಿಜಯ ಕರ್ನಾಟಕ VKMAIN, Mangalore edition, 10.10.2020 Edited by :Mahesh Pattaje

ಮಾದಕ ಮುಕ್ತ ಉಡುಪಿ ಜಿಲ್ಲೆ ಗುರಿ ನಗರಗಳಂತೆ ಗ್ರಾಮಾಂತರಕ್ಕೂ ಹರಡುತ್ತಿದೆ ಕರಾಳ ಡ್ರಗ್ಸ್ ಜಾಲ ಯುವಜನರಲ್ಲಿ ಅರಿವು ಮೂಡಿಸಲು ಪೊಲೀಸ್, ಮಾಧ್ಯಮಕ್ಕೆ ತಜ್ಞರ ಕರೆ

ವಿಕ ಸುದ್ದಿರೋಹ ಉಡುಪಿ
ಡ್ರಗ್ಸ್ ವ್ಯಾಪಾರವು ವರ್ಧಿಸುತ್ತಿರುವುದರಿಂದ ಕಟ್ಟುನಿಟ್ಟಿನ ಕಾನೂನುಬಾಹಿರ ಮಾದಕ ವಸ್ತುಗಳ ಬಳಕೆಯನ್ನು ನಿಲ್ಲಿಸುವುದು ಮತ್ತು ಯುವಜನರಲ್ಲಿ ಅರಿವು ಮೂಡಿಸಿ ಉಡುಪಿಯನ್ನು ಮಾದಕ ಮುಕ್ತ ಪಟ್ಟಣವಾಗಿ ರೂಪಿಸಬೇಕು. ಓಗೊಂದು ಸ್ವಲ್ಪ ಸಮಾಜದ ಕೆಲವು ಪಾಲಕರ ಹಾದಿಯಲ್ಲಿ ಉಡುಪಿ ಜಿಲ್ಲೆಯಲ್ಲಿ ಡ್ರಗ್ಸ್ ನಿರಂತರ, ಒಳಗಡೆಗಾಗಿ ಮನೆಯ ಕರ್ನಾಟಕ ಶುಕ್ರವಾರ



ಅಂದೋಲನಕ್ಕೆ ಆಳಿಯಾಣ(ವಿಕ ವೇದಿಕಾ) ಉತ್ತಮ ವೇದಿಕೆ ಒದಗಿಸಿತು.

ಕಾಂಗು, ವೃದ್ಧರು, ತಪ್ಪು ಡ್ರಗ್ಸ್ ನಿರಂತರದ ಆಗ್ಸೆ ಮತ್ತು ಅನಿವಾರ್ಯತೆಯನ್ನು ತಿಳಿಸುವುದು, ಶಾಲಾ ಕಾಲೇಜು, ಸಂಘ ಸಂಸ್ಥೆಗಳು, ಒಳಗೆ

ಕ್ರಮೇಣವಂತೆ ಮನುಷ್ಯ ಮಾಡಿದರು. ಕುಂದಾಪುರ ಎಸ್ಪಿ ಪರಿರಾಮ್ ಕಂಠ ರ್, ಕುಂದಾಪುರ ಗುರುಕುಲ ಸಮೂಹ ಶಿಕ್ಷಣ ಸಂಸ್ಥೆಯ ಕಾರ್ಯನಿರ್ವಾಹಕ ಪ್ರಿಪ್ರಿಪಾಂತ್ಯ ಸುಭಾಷ್ ಶೆಟ್ಟಿ ಮನೆಮಾಲ್ ಕಲ್ಯಾಣ ವೃದ್ಧಕೀಯ ಕಾಲೇಜಿನ ಪೂರೈಕಾ ವಿಭಾಗದ ಮುಖ್ಯಸ್ಥ ಡಾ. ವಿಶೇಷ್ ಸಿ. ನಾಯಕ ಹಾಗೂ ದೂರದರ್ಶನಕ್ಕೆ ಡಾ. ಎ.ವಿ. ಬಾಲಗಾ ಆಸ್ಪತ್ರೆಯ ವೃದ್ಧಕೀಯ ನಿರೀಕ್ಷಾ ಹಾಗೂ ಮನೋವೈದ್ಯ ಡಾ. ಪಿ.ಪಿ. ಭಂಡಾರಿ ವಾಲ್ಮೀಕಿಯವರು.



ಮಕ್ಕಳ ಫಿಜಿಕಲ್, ಮೆಂಟಲ್ ಫಿಟ್ನೆಸ್ ಗೆ ಒತ್ತು ಕೊಡಿ

ಬಾಲಿವುಡ್, ಸ್ಟಾಂಡಲ್ ವುಡ್ ಮೋಗಿನ ಡ್ರಗ್ಸ್ ಕೆಲವೆ ಅರಿವಿನ ಮೂಲ ದಿಕ್ಕು ತೋರಿದೆ. ಮದ್ಯ, ಸಿಗರೇಟು, ಮಾದಕ ನಿರಂತರಣೆ ಅತಿ ಮುಖ್ಯ. ಪರಿಹಾರವಾದ ಮಕ್ಕಳು ಮಕ್ಕಳ ಸಂಸ್ಕರಣೆಯಲ್ಲಿ ಮಾದಕ ಜಾಲದಲ್ಲಿ ಸಿಲುಕುತ್ತಿದ್ದು ಇದರಲ್ಲಿ ಕುತೂಹಲ, ಸ್ನೇಹಿತರ ಒತ್ತಡ, ಪ್ರಯೋಗೋಲಿತೆಯ ಪಾತ್ರವಿದೆ. ರೋಲ್ ಮಾದಲ್ ಗಳು ಬದಲಾಗಬೇಕು. ಮದ್ಯ, ಮಾದಕದಿಂದ ಒತ್ತಡ ಕಡಿಮೆ, ಆತ್ಮವಿಶ್ವಾಸ ವೃದ್ಧಿಯಂತಹ ಸಾಮಾಜಿಕ ಮೌಲ್ಯಗಳು ದೊಡ್ಡವಾಗಬೇಕು. ಮೆದುಳಿನ ಮೇಲೆ ಪ್ರಭಾವ ಬೀರುವ ಮಾದಕದಿಂದ ಮಕ್ಕಳ ಓದಿಗೆ ತೊಂದರೆ, ಪಿಂಚು, ಅವಿಭಾಜ್ಯ, ಒಪ್ಪಾಡೋಗ್ ಸಹಿತ ನಾನಾ ಅಪಾಯ ತಂದೊಡ್ಡುತ್ತದೆ. ಗಾಂಜಾ, ನಿಶೇಧಿತ ನಿಂದ ತಾಣತೋರಣೆ ಕಾಯಿಲೆ ಉಲ್ಲಾಸವಾಗುತ್ತದೆ. ಮದ್ಯಪಾನದಿಂದ ರೋಗ ನಿರೋಧಕ ಶಕ್ತಿ ಕಡಿಮೆಯಾಗುತ್ತದೆ. ಡ್ರಗ್ಸ್ ಸೇವನೆ ಇಂಜೆಕ್ಷನ್ ಹೆಂಟರಿ ಕೆಲಸವಿದ್ದು ಎಂಟಾರ್ಸಿನ್ ಡಾನಾಯನಿಕ ಬದಿಗಿನ ನಿಟ್ಟಿನಲ್ಲಿ ಪ್ರತಿರೋಧಕಗಳೂ ದೈಹಿಕ ಚಟುವಟಿಕೆ, ಒತ್ತಡ ನಿವಾರಣೆ ಅತಿ ಮುಖ್ಯ.

-**ಡಾ. ಪಿ.ವಿ. ಭಂಡಾರಿ**, ಪ್ರಾಥಮಿಕ ಮನೋರೋಗವೈದ್ಯ, ದೋಡ್ಡಗುಡ್ಡೆ ಡಾ. ಎ.ವಿ. ಬಾಲಗಾ ಆಸ್ಪತ್ರೆಯ ವೃದ್ಧಕೀಯ ಅಧೀಕ್ಷಕ

ಡ್ರಗ್ ಆನ್ ಲೈನ್ ಖರೀದಿ ಅಡ್ಡಿಯನ

ಮಗುಜಾಲದಲ್ಲಿ ವಿದ್ಯಾರ್ಥಿಯಾಗಿದ್ದ 20 ವರ್ಷದ ಯುವಕನೊಬ್ಬನಿಗೆ ಮಾದಕ ವಸ್ತುಗಳ ಬಳಕೆಗೆ ಡಾಕ್ಟರ್ ಬೆನ್ ಮೂಲಕ ಡ್ರಗ್ ಆನ್ ಲೈನ್ ಬೆನ್ ಮರಿಂದ ಮಾದಕವು ಬಂದಿತ್ತು ಅದರಲ್ಲಿ ತೋರಿದ್ದ ಬಿಲ್ ಕಾರ್ಯ ಮೂಲಕ ಮಾದಕ ಪಾವತಿ, ಪ್ರವಹಾರದ ಮಾಹಿತಿಯ ಸಿಗುತ್ತಿತ್ತು. ಆರಾಧನಾ ಬಿಲ್ ಕಾರ್ಯ ನಿರಂತರದ ಚಿತ್ರಣವಿತ್ತು.

ಗ್ರಾಮೀಣ ಪ್ರದೇಶಕ್ಕೂ ವಿಸ್ತರಿಸಿದ ಮಾದಕ

ವ್ಯಾಪಾರ ಗ್ರಾಮೀಣ ಪ್ರದೇಶಕ್ಕೆ ಮಾದಕ ವ್ಯಸನ, ಪ್ರವಹಾರ ವಿಸ್ತರಣೆಯಾಗುತ್ತಿದೆ. ಕುಂದಾಪುರದ ಕಂದೇನುರಲ್ಲಿ 10ರಿಂದ 12 ಮಾದಕ ಸೇವಾಸಂಘಗಳು, ಒಂದಿಬ್ಬರು ವೈದ್ಯರ, ಮೂರುಗೋಡಾಡಿಯಲ್ಲಿ 15 ಮಂದಿ ಮಾದಕ ವ್ಯವಹಾರಗಳು, ಮೂವರು ವೈದ್ಯರಿದ್ದಾರೆ.



ಉಡುಪಿ ಮಾದಕ ಮುಕ್ತ ಜಿಲ್ಲೆಯಾಗಲಿ

ಕೆಲವೆರಡು ವರ್ಷದಲ್ಲಿ 3 ಸಾವಿರಕ್ಕೂ ಅಧಿಕ ವರಕ್ಕೆ ವರಕ್ಕೆ ಗಾಂಜಾ ಬಳಕೆ ಪ್ರಮಾಣ ಅಧಿಕವಿದ್ದು, ಅನ್ಯ ಮಾದಕ ವಸ್ತುಗಳ ಬಳಕೆಯೂ ಹೆಚ್ಚಿದೆ. ವೃದ್ಧರು ಕೂಡ ಚಟ ಅಧಾರದಲ್ಲಿ ನಿರಂತರವು ಮಾದಕ ದೊರಕುತ್ತಿ ಬಳಸುವುದರಲ್ಲಾ 2-3 ಕಿಂಗ್ ಓಂದ ಮಾದಕ ಸಿಗುತ್ತಿದ್ದರೂ ಅದನ್ನು ಪರಿಶೋಧಿಸಿ ಪತ್ತೆ ಹಚ್ಚುವುದು ಸಾಧ್ಯ. ಮದ್ಯ, ಮಾದಕ ಸೇವಿಸುವುದರೂ ಕೂಡ ಬದುಕು ಬದಲಾಯಿಸುವ, ಸುಧಾರಿಸುವ ನಿಟ್ಟಿನಲ್ಲಿ ಅರಿವು, ಜಾಗೃತಿ ಕಾರ್ಯಗಳು ಹೆಚ್ಚಬೇಕು. ಶಾಲಾ, ಕಾಲೇಜು, ಪಿಪಿ ಕ್ಯಾಂಪ್ ಆರಂಭವಾದ ಬಳಿಕ ಮಾದಕ ನಿರಂತರಣೆ ಚಟುವಟಿಕೆ ಸಮರೋಪಾಯದಲ್ಲಿ ನಡೆಯಬೇಕು. ಸಿಗರೇಟ್ ನಿಂದ ಇಂಜೆಕ್ಷನ್ ತನಕದ ಮುಕ್ತ ಜಾಲದಿಂದ ಹೋರಾಟಗಳು ಆವೇಶ ಕೊಡಬೇಕು. ದೈಹಿಕ, ಸಾಂಸ್ಕೃತಿಕ ಚಟುವಟಿಕೆಯಲ್ಲಿ ನಿಪುಣರಾಗುವುದು, ತೋರಿದರೆ ಮನಸ್ಸಿನ ಜಾಂಜಿಟ್ಟಿ ಅಪಾರವರದು. ತಪ್ಪು ದಾರಿಯಲ್ಲಿ ಸಾಗುವುದನ್ನು ಸು ದಾರಿಗೆ ತಂದು ಉತ್ತಮ ಬದುಕಿನ ಹಾದಿ ತೋರುವುದು, ಪ್ರಸಿದ್ಧಿ ಕನ ಸಾಮಾಜಿಕ ಜವಾಬ್ದಾರಿ ಮಕ್ಕಳು, ಯುವಜನಿಕೆಗೆ ಉತ್ತಮ ಮಾದಲ್ ಗಳು ಸಿಗಬೇಕು. ಉಡುಪಿ ಮಾದಕ ಮುಕ್ತ ಜಿಲ್ಲೆಯಾಗುವ ಪ್ರತಿಯೊಂದು ಕ್ಷಣದ ಬನತೆಯೂ ಕೈತೋರಿಸಬೇಕು.

-**ಡಾ.ವಿಶೇಷ್ ನಾಯಕ**, ಮನೆಮಾಲ್ ಕರ್ನಾಟಕ ಮೆಡಿಕಲ್ ಕಾಲೇಜಿನ ಪೂರೈಕಾ ವಿಭಾಗದ ಮುಖ್ಯಸ್ಥ



ಕರಾವಳಿ ಮಾದಕ ಹಾಟ್ ಸ್ಪಾಟ್ ಆಗದಿರಲಿ

ಅಮೆ, ಆಕರ್ಷಣೆಗಳ ನಡುವೆ ವಿದ್ಯಾರ್ಥಿ, ಯುವಜನಿಕೆಯನ್ನು ಸಮರೋಪಾಯದಲ್ಲಿ ಸಂರಕ್ಷಿಸಿ ತೆರವು ಕೆಲಸ ಸಾಧಿಸಬೇಕು. ಒಳಿತು, ಕೆಲವು ಅರಿವು ಮಕ್ಕಳಿಗೆ ದೊರಕಬೇಕು. ಮಕ್ಕಳ ಮಾದಕ ಅರೋಗ್ಯ, ದೈಹಿಕ ಚಟುವಟಿಕೆ ನಿಟ್ಟಿನಲ್ಲಿ ಅಪರೀಟದಲ್ಲಿ ತೊಡಗಿಸಬೇಕು. ಅನಿಟ್ಟು ಒತ್ತಡ ಸ್ವಲ್ಪಮ. ಕರಾವಳಿ ಮಾದಕ ಹಾಟ್ ಸ್ಪಾಟ್ ಆಗದಂತೆ, ಶಾಲಾ ಕಾಲೇಜುಗಳು ಮಾದಕ ಕೇಂದ್ರಗಳಿಂದ ದೂರ ಅತ್ಯಗತ್ಯ. ಮಕ್ಕಳಿಗೆ ಕಾಲಕಾಲಕ್ಕೆ ಅನ್ಯ ಸಮಾಲೋಚನೆ (ಕೌನ್ಸಿಲಿಂಗ್), ಮಾದಕ ಪೂರೈಕೆಯ ಮೂಲವನ್ನು ಪೂರೈಸುವ ಪತ್ತೆ ಹಚ್ಚಿ ನಿರಂತರಣೆ ಕ್ರಮ ಕೈಗೊಳ್ಳಬೇಕು. ಶಾಲಾ, ಕಾಲೇಜುಗಳಲ್ಲಿ ಇನ್ನಷ್ಟು ಅರಿವು, ಜಾಗೃತಿಯಾಗಬೇಕು. ಕೋರ್ಟ್ ಬಳಿಕ ಗೋದಲ, ಅಕಂತರ ವ್ಯವಸ್ಥೆಯ ನಡುವೆ ಆನ್ ಲೈನ್ ಪಾಕ, ಪರಿಗಣಿಸುವ ನಡೆಯುತ್ತಿದ್ದು ಮಕ್ಕಳ ಮಾನಸಿಕ, ದೈಹಿಕ ಅರೋಗ್ಯದ ಸುಸ್ಥಯ, ಸಮತೋಲನಕ್ಕೆ ಒತ್ತು ಅತ್ಯಗತ್ಯ. ಮದ್ಯ, ಮಾದಕ ನಿರಂತರಣೆ ಅರಿವು ಅಂದೋಲನವಾಗಲಿ. ಉತ್ತಮ ಬದುಕು ಮುನ್ಸೂಚಿಸುವ ವಸ್ತುಗಳನ್ನು ದೂರವಿಡಬೇಕು.

-**ಪಾಂತ್ಯ ಸುಭಾಷ್ ಶೆಟ್ಟಿ**, ಗುರುಕುಲ ಸಮೂಹ ಶಿಕ್ಷಣ ಸಂಸ್ಥೆ ಕಾರ್ಯನಿರ್ವಾಹಕ ಪ್ರಿಪ್ರಿಪಾಂತ್ಯ, ಕುಂದಾಪುರ



ಮುಲಾಬೆಲ್ಲದ ಹಾಸ್ಟೆಲ್, ಕಾಲೇಜಿಗೆ ದಾಳಿ

ಡ್ರಗ್ಸ್ ಜಾಲದಲ್ಲಿ ಸಿಲುಕಿದ ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ಬಗ್ಗೆ ಕಾಲೇಜು, ಎಪಿಗೆ ಪತ್ತೆ ಬರೆದರೆ ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ಎನ್ಟಿಕೆ, ಡಿಪಿಪ್, ಸೆನ್ಟಿಡ್ ಮಾದಕ, ಹೆಚ್ಚಿನ ಕೆಲವು ತಿಳಿ ಹೇಳುವ ನಿಂತಿ ಅನುಸರಿಸುತ್ತಿದ್ದರೆ ಇನ್ನು ಮುಂದೆ ಕಾಲೇಜು, ವಿದ್ಯಾರ್ಥಿಗಳ ಭಯವು ಕೆಲವೆರಡು ಯಾವುದೇ ಮುಲಾಬೆಲ್ಲದ ಹಾಸ್ಟೆಲ್, ಕಾಲೇಜುಗಳಿಗೆ ದಾಳಿ, ಶೋಧ ಅನಿವಾರ್ಯ. ಕೆಲವೊಂದು ವರ್ಷದಲ್ಲಿ ಎನ್ ಡಿಪಿಎನ್ ಕಾರ್ಯದಿಂದ ಉಡುಪಿ ಜಿಲ್ಲೆಯಲ್ಲಿ ಡ್ರಗ್ಸ್ ಪ್ರವಹಾರದಲ್ಲಿ ತೊಡಗಿದವರ ಪರವು 190 ಪ್ರಕರಣ ದಾಖಲಾಗಿದೆ. ಮಾದಕ ವ್ಯವಹಾರಕ್ಕೆ ಸಂಬಂಧಿಸಿ ಅಧ್ಯಕ್ಷ ಪ್ರದೇಶ ಹೆಚ್ಚಾಗುತ್ತಿದ್ದು ದಾಳಿ ನಡೆದರೆ ಹೆಚ್ಚು ಪ್ರಮಾಣದಲ್ಲಿ ಮಾದಕ ಪತ್ತೆ ಸಾಧ್ಯ. ಉಡುಪಿಯಲ್ಲಿ ಮಾದಕ ದಾಖಲೆ ಹೆಚ್ಚಿ ಬಳಕೆ ದಾರಿದ್ರ್ಯವಾಗಿದೆ. ಎಲ್ ಎನ್ ಐ, ಮದಕದಿಂದ ಬರುವ ಎಂಟಿಎಂಎ ಮಾತ್ರೆ ಸಹಿತ ರೋಗನಿರೋಧಕ ದೊರಕುತ್ತಿ ಮಾದಕ ವ್ಯವಹಾರ ವಿಸ್ತರಣೆಯಾಗುತ್ತಿದೆ. ಸಿನಿಮಾ, ಮಾದಕದ ಮೂಲಕ ಡ್ರಗ್ಸ್ ಬಳಕೆಯನ್ನು ಕ್ಯಾಂಪ್ ಮಧ್ಯೆ ಮಾದಕ ಬೇಡಿ. ಸಿಗರೇಟು, ಮಾದಕ ಪ್ರತಿವಿಧಿಯ ಸಂಕೇತವಾಗಿ, ಕೋರ್ಟ್ ವೇಳೆ ನಿರಂತರಣೆ ದಲ್ಲಿ ಡ್ರಗ್ಸ್ ಸೇವರ್ ಪ್ರಸ್ತುತ ಪ್ರೀಯ್ ಆಗಿದ್ದು ನಿರಂತರಣೆ ಬಹಿಷ್ಕಾರ ವಿದ್ಯಾರ್ಥಿ, ಯುವಕರು, ಶಾಲಾ ಕಾಲೇಜುಗಳಲ್ಲಿ ಅರಿವು, ಜಾಗೃತಿ ಹೆಚ್ಚಿಸಬೇಕು.

ನಕೆಯ ಮೂಲ ಪತ್ತೆ ಹಚ್ಚುವ ಪ್ರಯತ್ನ



ಡ್ರಗ್ಸ್ ವಿಚಾರದಲ್ಲಿ ಸಮಗ್ರ ವಿಚಾರಣೆ ಜಾಲರಿಯಲ್ಲಿ ಎಸ್ಪಿ ಕೇಂದ್ರದಲ್ಲಿ 4, 5 ತಂದೆ ರಹಿತ ನಿರಂತರಣೆ ಯೋಜನೆ ನಡೆಸಿ ಡ್ರಗ್ಸ್, ಮಾದಕ ವಸ್ತು ಗಳ ಪಿರಾಟ ಸಮರ ಸಾಂ ದ್ರವೆ. ಮಾ ದಕ ವಸ್ತು ಎಲ್ಲಿಂದ ಪೂರೈಕೆಯಾಗು ತ್ತದೆ ಎಂಬ ಮೂಲ ಪತ್ತೆ ಹಚ್ಚಿ ನಕೆ ಮುಕ್ತ ಜಿಲ್ಲೆಯಾಗುವುದೇ ಸಮ್ಯ ಲದ್ದತೆ. ಕಳೆದ 10 ವರ್ಷಗಳಿಗೆ ಮೇ ಲಿಕೆ ಮಾಡಿದರೆ ಈ ಜಾಲ ಅತೀ ಹೆಚ್ಚಿನ ಗಾಂಜಾ ಸೇವನೆ ಪ್ರಕರಣ, ಅರೋಪಿಗಳ ಬಂಧನ, ಪರಿಶೋಧನೆ ಕೊಂಡಿರುವ ಗಾಂಜಾ ಪ್ರಮಾಣ ಹೆಚ್ಚು ಜಿಲ್ಲೆಯಲ್ಲಿ ಮೊದಲ ಜಾಲಗೆ ಎಂಟಿಎಂಎ ಮಾತ್ರೆ ಸಹಿತ ಅರೋಪಿ ಯನ್ನು ಬಂಧಿಸಿದ್ದೆವು. ಅಮಲು ಮಾ ತ್ರೆಯನ್ನು ಮಾದಕ ಮಾದಕವು ಮ ಡಿಕಲ್ ಪೂರೈಕೆ ದಾಳಿ ನಡೆಸಿ ಪರಮಾ ನಿಯಮಕ್ಕೆ ರದ್ದು ಮಾಡಲಾಗಿದೆ. ಗಾಂಜಾ ಸೇವನೆ, ಮಾದಕದಲ್ಲಿ ಬಂಧಿತರಾಗಿದ್ದ ವ್ಯಕ್ತಿಗಳನ್ನು ಪತ್ತೆ ಮಾಡಿ ಅವರ ಕೆಲಸವನ್ನು ಮೇಲೆ ನಿಗಾ ಇಟ್ಟಿದ್ದೆವು. ಅಂತರಾಷ್ಟ್ರೀಯ ಹಾಗೂ ಜಿಲ್ಲೆಯು 8, 9 ವೈದ್ಯರನ್ನು ಗುರುತಿಸಿ ನಿಗಾ ಇಟ್ಟಿದ್ದೆವು. ಬೆಂಗಳೂರ ಕಾನ ದಾಖಲೆ ಹೋರ ದಾಖಲೆ ಇಂದ ಜಿಲ್ಲೆಗೆ ಆಗುತ್ತಿರುವ ಬಸ್ ಗಳ ತನುಸನೆ ಮಾಡಲಾಗುತ್ತಿದೆ. ಸಾರ್ವ ಜನಿಕರು ಮಾಹಿತಿ ಕೊಟ್ಟರೂ ದಾಳಿ ನಡೆಸಿ ಕ್ರಮ ಕೈಗೊಳ್ಳುತ್ತೇವೆ. ಪೊಲ್ಸ್ ಕಾರ್ಡ್ ಸಂಖ್ಯೆ ಮಾಹಿತಿ ನೀಡಬ ಹುದು. ಮಾಹಿತಿ ದಾರರಂತೆ ಗೌಪ್ಯ ವಾಗಿ ಇದರಾಗುವುದು.

-**ಎನ್. ವಿಶ್ವನಾಥ್**, ಎಸ್ಪಿ, ಉಡುಪಿ

-**ಕೆ.ರಾಮ್ ಕಂಠರ್**, ಎಸ್ಪಿ, ಕುಂದಾಪುರ

34. Gender Neutrality of Rape Laws in India

- Panel Discussion



KASTURBA MEDICAL COLLEGE
MANIPAL

JUSTITIA

JUSTITIA, The Forensic Club & Center for Clinical and Innovative Forensics
Kasturba Medical College, Manipal
Invites you to a
National Panel Discussion on

GENDER NEUTRALITY OF RAPE LAWS IN INDIA

DATE: June 19th **TIME: 2-3 pm**

PANELISTS

 <p>Dr. Meenacshi Martins Actor, Psychiatrist & Social Activist</p>	 <p>Dr. Himanshu M Deputy Medical Co-ordinator Médecins sans Frontières / Doctors without Borders (MSF Holland India)</p>
 <p>Dr. Nagarathna. A Associate Professor of Law, National Law School of India University Bangalore</p>	 <p>Ms Nisha James Deputy Commissioner of Police Bangalore</p>
 <p>Dr. Anita Shivaji Associate Professor, Forensics, KMC Manipal</p>	

MODERATORS

 <p>Dr. Vinod C. Nayak Professor, Forensics Coordinator, Centre for Clinical and Innovative Forensics, KMC, Manipal</p>	 <p>Mr. Robin Cherian President, Justitia KMC, Manipal.</p>
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KASTURBA MEDICAL COLLEGE
MANIPAL
(A constituent unit of MAHE, Manipal)
in association with
Centre for Clinical & Innovative Forensics
KMC, MAHE, Manipal and
Department of Forensic Medicine
Kasturba Medical College & Hospital, MAHE, Manipal
cordially invite you to the inaugural function of

Half - Day Continuing Medical Education on **VIOLENCE AGAINST SAVIOURS**

 01 September 2021
9:00 am onwards
 3rd Floor, Dr TMA Pai Auditorium
KMC, Manipal



Program Schedule
9:00 am
Welcome Address
Dr Sharath Kumar Rao
Dean, KMC, MAHE, Manipal
Overview of Violence Against Saviours
Dr Avinash Shetty
Medical Superintendent, Kasturba Hospital, Manipal
Lighting the lamp
Inaugural Address by Chief Guest
Mr N Shashikumar
IPS, Commissioner of Police, Mangalore
Guest of Honour
Mr N Vishnuvardhan
IPS, Superintendent of Police, Udupi
Presidential Address by
Dr H S Ballal
Pro Chancellor, MAHE, Manipal
Vote of Thanks
Dr Vinod C Nayak
Co-ordinator, Centre for Clinical & Innovative Forensics
Professor, Dept. of Forensic Medicine
KMC, MAHE, Manipal



MANIPAL
ACADEMY of HIGHER EDUCATION
(Deemed to be University under Section 3 of the UGC Act, 1956)

35. Panel Discussion on Violence Against Saviours



36. Talk on Cyber Security, October 2021: Resource Person – Dr Ananth Prabhu



37. CME on Forensic Nursing, November, 2021



38. Workshop on Drug Detection for Police



39. High Intensity Drug Trafficking Investigation Workshop for Coast Guard and Airport Officials



40. Training of Udupi District Police for Zonal Competitive exams



41. Workshop on 'Golden Hour Management' for First Responders



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(Deemed to be University under Section 3 of the UGC Act, 1956)



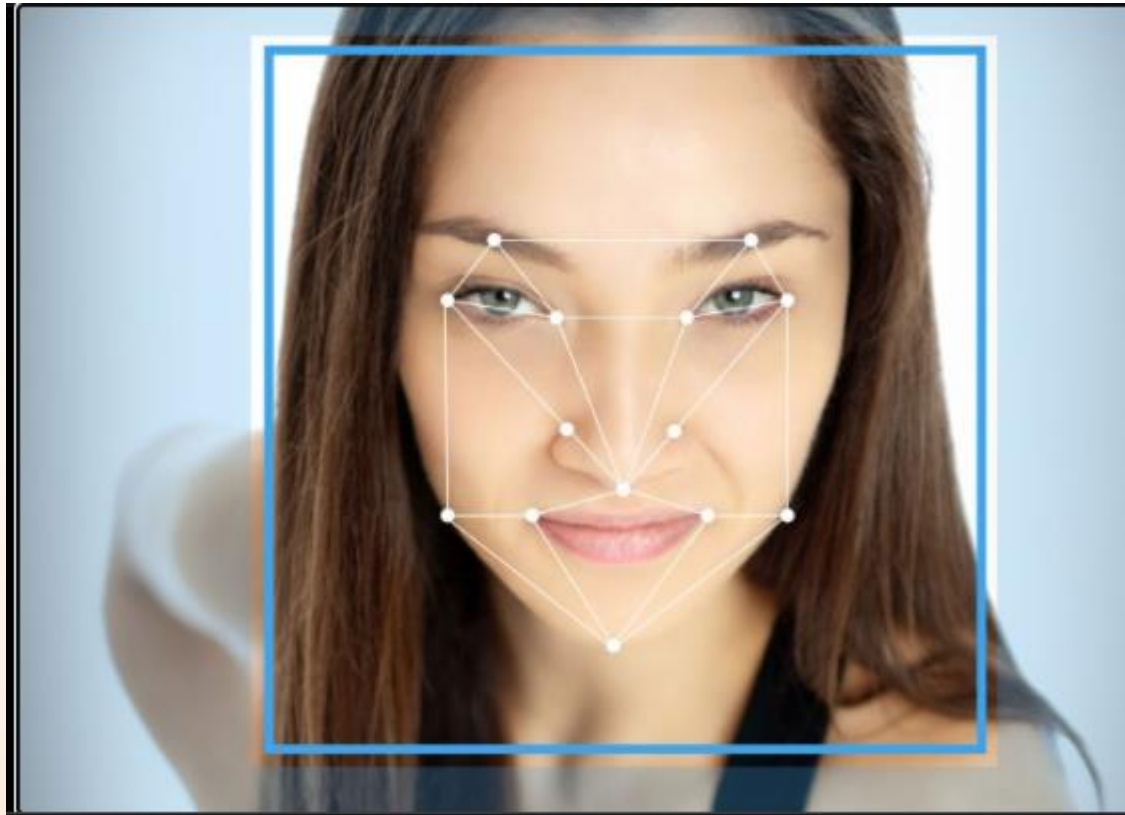
42. Workshop on Investigative Techniques for Police



43. Workshop on Forensic ballistics and Toxicology, November 2021



44. Multi Modal Facial Analysis Project



45. Hospital Software for MCCD

2. Grants

Sexual Assault Nurse
Examiner Training Project

- Grant applied on 2-1-2019 (Rs.30 lks) ICMR
- Grant applied on 2-1-2019 (Rs.35 lks) (NCW)

DNA methylation in
Alzheimer's development
and progression

- Grant applied on 12-2-2019
- Amount : Rs.2 Cr
- (DBT) (in collaboration with Queensland University of Technology)

SERB SUPRA :

- Project Title - Isolation, Purification and Identification of Anti Parkinsonian components from Indian snake venom and the therapeutic potential of surface modified exosome loaded snake venom components in a parkinsons disease model
- Amount Rs 81Laks

2 Travel grants

- Rs. 1,00,000

3 . Publications

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- GBD 2019 Universal Health Coverage Collaborators (2020). Measuring universal health coverage based on an index of effective coverage of health services in 204 countries and territories, 1990-2019: a systematic analysis for the Global Burden of Disease Study 2019. *Lancet (London, England)*, 396(10258), 1250–1284. [https://doi.org/10.1016/S0140-6736\(20\)30750-9](https://doi.org/10.1016/S0140-6736(20)30750-9)
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4. Certificate Courses Conducted

1. Certificate Course on Drug Abuse Counselling Certificate Courses
2. Proposed :
 1. Certificate Course n Clinical and Analytical toxicology
 2. Certificate Course on Forensic Nursing

Final Review

	Results	Review
Term	Jan 2018 – December 2021	
1.	Stake Holder Engagement	45
2.	Research Grants Applied	6 (Rs.2,47,00,000)
3.	Publications	22
4.	Courses	1

Additional Information

• Organ Transplantation in MLC's



KMC Manipal and Udupi Police join hands...

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KMC Manipal and Udupi Police join hands for 'green corridor' to assist Live Organ Transport

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Awareness Program on Organ Donation for Udupi Police



55 UDUPI DAR POLICEMEN PLEDGE ORGANS TO MARK DECENNIAL YEAR OF 2008 BATCH

PRAKASH SAMAGA @Udupi

A batch of reserve police wing in Udupi district took up the unique oath to go for organ donation. The occasion of the decennial celebration of the District Armed Reserve police of 2008 batch gave them the reason to do something good for society and 15 of them decided to donate their organs and 40 their eyes, on Saturday.

Out of a total 108 reserve police staff of 2008-year batch who were deputed in Udupi district, 67 are still serving in Udupi in the District Armed Reserve (DAR) police wing, while the remaining have moved to other wings of police like Anti-Corruption Bureau (ACB), Coastal Security Police and state intelligence wing. And, 22 of them got transferred to other districts; eight resigned and took up other jobs. Among the 67 reserve police staff of the 2008 batch who are in Udupi, apart from those who have already decided, some more have decided to go for organ donation in the days to come.

Ravi Prakash, a staff at the DAR police wing in Udupi told The New Indian Express that



2008 batch of District Armed Reserve Police celebrate their reunion on the occasion of the decennial celebration of their batch in Udupi on Saturday

Prof Vinod C Nayak, Head of the Department of Forensic Medicine, Kasturba Medical College, Manipal, inspired them to do so. "When we invited Prof Nayak for the decennial programme in Udupi on Saturday, he motivated us to go for organ donation, which again will be our service to the society," he said.

"Initially, we had thought of organising a blood donation camp, but there are many other

social organisations that conduct such camps. So we decided to do this," he added. He further said that being a policeman, he comes across many instances of accident cases where organ transplant is necessary to save the life of a victim. "So this is our small step to create awareness among the people about the importance of organ donation," he informed.

Prof Nayak added that he gave

the necessary application form to the reserve police staff on Saturday as the 2008-batch reunion was under way, as it was for the noble cause organ donation. "I told them they can go for eye donation, organ donation and cadaver donation," he added.

Baramappa R Ganti, a DAR staff, revealed that he is from Haveri district and worked as a mason in Udupi before joining the force in 2008. "I feel great to donate my organs as a police job is service oriented. This is an extension of our service mindset," he said. Udupi SP Laxman B Nimbargi said that it is common to see decennial celebrations, batch-end merry making and picnics. "But the 2008 batch of DAR in Udupi are pledging their organs, and they will be worthy role models to juniors," he added.

Initially, we had thought of organising a blood donation camp, but there are many other social organisations that conduct such camps. So we decided to do this

Ravi Prakash, Staff

SOP on End of Life Care – Blue Maple



- National Panel of Medico-Legal experts
- Maharashtra Medico legal association
- NPA
- President KAMLS

Centre for Travel Medicine

Coordinator: Dr Chythra R Rao, Dept. of Community Medicine,
KMC, Manipal

Evaluation Period: Phase I/Phase II/Phase III/Phase IV/Phase V

Centre Overview

Centre	Centre for Travel Medicine
Approval Date	12/11/2018
Coordinator	Dr Chythra R Rao
Inception Date	01/12/2018
Term	2 Years+2 years
Reporting to	Dean, KMC, Manipal
Statement	
Vision	To develop a personalized State of the Art “Centre for Travel Medicine” at Manipal
Mission	To provide preventive services for international travelers through risk assessment, screening, vaccinations and follow up evaluation
Objectives	<ol style="list-style-type: none"> 1. To create awareness about pre travel consultation/travel medicine 2. To develop standard pre travel immunization docket 3. To provide personalized travel risk assessment for international travelers

Members and Stakeholders

Team Members:

- Dr Ashwini Kumar
- Dr Raviraja Acharya
- Dr Kavitha Saravu

Key Stakeholders Involved

- Dean KMC, Manipal
- MS & COO Kasturba Hospital
- HOIs of other constituent institutions

Planned Activities

Milestones	Review Period	Planned Activity	Action Taken
Phase 1	1 – 6 months	<ul style="list-style-type: none"> Conduct a CME Awareness session for general public Preparatory work for launch of Travel clinic 	<ul style="list-style-type: none"> Safe Travel Symposium held on March 23 2019 Talk on Travel medicine – Arogya Chintana –hosted by Daijiworld on 25 May 2019 Listing the clinic in the online ISTM Clinic directory
Phase 2	7 – 12 months	<ul style="list-style-type: none"> Develop standard template for students immunization Information dissemination through Arogyavani articles Vaccination services for students & travelers Assessment of local environment with respect to travelers safety 	<ul style="list-style-type: none"> Dissemination of Travel clinic services to all HOIs. Provided inputs for developing Immunization schedule, prophylaxis and health record for Student mobility center at KMC, Manipal Developed Travel vaccination advisory for students (National/International) visiting India Published Arogyavani articles Funding obtained for AMR assessment
Phase 3	13 – 18 months	<ul style="list-style-type: none"> Vaccination services for students & travelers 	<ul style="list-style-type: none"> Online ISTM registration renewed
Phase 4	19 – 24 months	<ul style="list-style-type: none"> Information dissemination through Arogyavani articles Covid vaccination co-ordination 	<ul style="list-style-type: none"> Published Arogyavani articles Funding (2nd instalment) obtained for AMR assessment Facilitating Covid -19 vaccination at Marena Online ISTM registration renewed
Phase 5	25 – 30 months	<ul style="list-style-type: none"> KMC & KH to be one of the participating sites for multicentric Covid_AESI sentinel surveillance Covid-19 vaccination co-ordination 	<ul style="list-style-type: none"> Funding (3rd instalment) obtained for AMR assessment Covid_AESI sentinel surveillance project initiated Facilitating Covid -19 vaccination at Marena

Details of the Process and Outcome

Key Activities	Details of the Process	Measurable Outcome
Certificate Course		
Workshops/ Conference	Sensitization for faculty & post graduates on International Health regulations	<ul style="list-style-type: none"> Resource person for session on, “Travel health care services” as part of Continuing Nursing Education for faculty & PhD scholars of Manipal College of Nursing & Manipal School of Nursing on 20th November 2020 at KMC, Manipal on MS Teams platform Session on Covid -19 vaccination hub –Indian experience for the students of Virtual elective program of MAHE & King’s College, London
Research Grants Applied & funded	<ul style="list-style-type: none"> MACID seed grant ICMR adhoc funding MoH&FW & ITSU funding 	<ul style="list-style-type: none"> Completed MAC ID Seed grant as PI for the year 2019-2020. Funding amount: 2,00,000 INR; Duration: 2019-2020 Obtained funding from ICMR (2nd installment) as PI. Funding Amount: 27,20,933 INR; Duration: 2019-2022 Obtained funding for Sentinel Surveillance for Adverse Events of Special Interest (AESI) following COVID-19 vaccination in India as PI. Amount:15,00,000 INR; Duration: Feb 2022 – Jun 2023
Research Publications	<ul style="list-style-type: none"> 3 Lancet publications as part of GBD collaborators 	<ol style="list-style-type: none"> Global, regional, and national sex differences in the global burden of tuberculosis by HIV status, 1990–2019: results from the Global Burden of Disease Study 2019. Tracking development assistance for health and for COVID-19: a review of development assistance, government, out-of-pocket, and other private spending on health for 204 countries and territories, 1990–2050. Global, regional, and national sex-specific burden and control of the HIV epidemic, 1990–2019, for 204 countries and territories: the Global Burden of Diseases Study 2019.
Collaborations	Registered Travel clinic @Kasturba Hospital with the International Society of Travel Medicine	<ul style="list-style-type: none"> Listing in the online ISTM Clinic directory
Consultancy/ Revenue	<ul style="list-style-type: none"> Facilitated student vaccinations & Pre travel vaccinations Facilitating Covid 19 vaccination at Marena for MAHE staff, students & general public 	<ul style="list-style-type: none"> Rs 300 per consultation @ KH as Specialty Travel Clinic services

Final Review

Target	Results	Review
Phase 1	<ul style="list-style-type: none"> Awareness generation activities undertaken Listing of Kasturba Hospital Travel Clinic in the online ISTM Clinic directory 	
Phase 2	<ul style="list-style-type: none"> Travel clinic consultations initiated at Kasturba Hospital as specialty clinic every Friday Obtained research grants Awareness generation activities undertaken 	
Phase 3	<ul style="list-style-type: none"> Awareness generation activities undertaken Funding obtained 	
Phase 4	<ul style="list-style-type: none"> Awareness generation activities undertaken Funding continued from ICMR (2nd installment) Facilitating Covid 19 vaccination at Marena for MAHE staff, students & general public 	
Phase 5	<ul style="list-style-type: none"> Funding (3rd instalment) obtained for AMR assessment Covid_AESI sentinel surveillance project initiated Facilitating Covid -19 vaccination at Marena 	

Additional Information

Photographs

Publication list:

1. Chythra R Rao, GBD 2019 Tuberculosis Collaborators. Global, regional, and national sex differences in the global burden of tuberculosis by HIV status, 1990–2019: results from the Global Burden of Disease Study 2019. *Lancet Infect Dis* 2022; 22(2): 222-241.
2. Chythra R Rao, Global Burden of Disease 2020 Health Financing Collaborator Network. Tracking development assistance for health and for COVID-19: a review of development assistance, government, out-of-pocket, and other private spending on health for 204 countries and territories, 1990–2050. *The Lancet* 2021; 398; (10308): 1317-1343.
3. Chythra R Rao, GBD 2019 HIV Collaborators. Global, regional, and national sex-specific burden and control of the HIV epidemic, 1990–2019, for 204 countries and territories: the Global Burden of Diseases Study 2019. *The Lancet HIV* 2021; 8 (10): E633-E651.

News paper articles: Arogyavani articles on traveller’s health, anti microbial resistance, infectious diseases –dated, Jan 2022; Jan, July, Sep 2021; Jan, March, June 2020; Sep 2019

Grants: Role as investigator: Principal Investigator – Completed project

1. Seasonal trends in microbial quality of community water samples and perspectives about antibiotic use and misuse in the community

- Funding agency: Manipal McGill Centre for Infectious Diseases, KMC, Manipal - MAC ID Seed grant for the year 2019-2020
- Funding amount: 2,00,000 INR; Duration: 2019-2020

Role as investigator: Principal Investigator – ongoing project

1. Socio-cultural and environmental drivers of antibiotic resistance in the community: people, physicians and pharmacists’ perspective – a mixed methods approach

- Funding Agency: ICMR; Funding Amount: 27,20,933 INR; Duration: 2019-2022

2. Sentinel Surveillance for Adverse Events of Special Interest (AESI) following COVID-19 vaccination in India

- Funding agency: ITSU, MOHFW; Funding Amount: 15,00,000 INR; Duration: 2022-2023

Collaborating institutes & Centers: Registered Travel clinic @Kasturba Hospital with the International Society of Travel Medicine

Any other relevant information: Nil

Centre for Foetal and Perinatal Pathology

Coordinator: Dr. Mary Mathew

Evaluation Period: 4th Year Phase I

Centre Overview

Centre	Centre for Fetal and Perinatal Pathology (C-FPP)
Approval Date	25/01/2019
Coordinator	Dr. Mary Mathew
Inception Date	01/02/2019
Term	2 Years +2 years
Reporting to	Dean, KMC, Manipal
Statement	
Vision	To be a National and Regional Reference Centre for Fetal and Perinatal Pathology
Mission	<ul style="list-style-type: none">• To identify the causes of fetal and perinatal deaths• To identify preventable causes of death and thereby reduce the perinatal mortality rate
Objectives	1. High quality service provision 2. Medical and scientific advances in perinatal pathology 3. Education, Training and Courses 4. Support services to affiliate and regional hospitals/clinics 5. Building national and international linkages

Members and Stakeholders

Team Members:

Mentors:

Dr. Ranganathan, University of Cincinnati, USA

Dr. Irene Scheimburg, London Hospital, UK

Dr. Marta Cohen, Sheffield Children's Hospital, UK

Members: KMC , Manipal

Dr. Mary Mathew MD, DCH. Professor & Head, Pathology

Dr. Leslie Lewis, MD, DCH, Professor & Head, Pediatrics

Dr. Shalini Nayak, PhD, Assistant Professor, Medical Genetics

Dr. Prashanth K Adiga, MD, Professor, OBG & Gyn

Dr. Rajagopal KV, MD, Professor, Radiology

Key Stakeholders

Parents

Neonates

Pediatricians

Obstetricians

Geneticists

Public Health Administrators

Community

Scientific Community

Planned Activities

Milestones	Review Period	Planned Activity	Action Taken
Phase 1	1-6 months	<ul style="list-style-type: none"> • KMC Manipal -Mangalore postgraduate case discussion • Research on placenta • Thesis on placental studies • COD Review meetings with Pediatricians & Obstetricians 	<p>To commence in July- August</p> <p>Collaboration with University of Melbourne</p> <p>1 MD candidate from OBG thesis on placenta</p> <p>Monthly meetings</p>
Phase 2	7-12 months	<ul style="list-style-type: none"> • E- learning platform • Publications 	<p>Design in progress</p> <p>1 international paper submitted, 2 papers in process of submission</p>
Phase 3	13-18 months	<ul style="list-style-type: none"> • Design modules on autopsy and placenta • CME, Conferences • Certificate course in Perinatal Pathology 	<p>Commenced</p> <p>Proposed for 2023 with AIPNA</p> <p>Not yet started</p>
Phase 4	19-24 months	<ul style="list-style-type: none"> • Designing a manual of Case series on perinatal autopsy • Atlas on Perinatal pathology 	<p>In progress</p> <p>In progress</p>

Details of the Process and Outcome

Key Activities	Details of the Process	Measurable Outcome
Certificate Course	<ul style="list-style-type: none"> Planning Phase 	Yet to start
Workshops/ Conference	<ul style="list-style-type: none"> Conducted 2- day Hands-on Workshop on MITS and Placental Pathology funded by Bill & Melinda Gates Grant (RTI) Planning for 5th Pediatric Pathology Conference in Manipal 2023 with AIPNA 	29th & 30th Jan,2020 Trained 52 postgraduates – Pathology & Pediatrics
Research Grants Applied	<p>Minimally Invasive Tissue Sampling. {Funded Bill & Melinda Gates Foundation RTI grant awarded</p> <ul style="list-style-type: none"> IPOP study grant – Applied SERB Core Grant – Applied McGill grant - Applied 	<p>Study on MITS of brain in neonates with neurological insults – Completed</p> <p>Not obtained Not obtained Not obtained</p>
Research Publications	1	Published paper in Journal of Clinical Infectious Disease Q1 journal
Collaborations	<ul style="list-style-type: none"> Dept of Biotechnology and the Mechanical Department, MIT Collaboration -Perinatal Pathology, Newcastle upon Tyne University, UK Co-Lab (USA) –Magee-Womens Research Institute & Foundation Pittsburg 	3D printed Brain Slicer design – Version 1
Consultancy/ Revenue	Nil-	-

Final Review

Target	Results	Review
Phase 1	Achieved the targets	
Phase 2	Partially achieved	E- learning platform discussions to be initiated
Phase 3	Partially achieved	Certificate course & CME's, & conferences discussions to be initiated
Phase 4	Yet to start	

Additional Information

Publication Lists: 1. *Cause of death in neonates with neurological insults at the neonatal intensive care unit: Insights from a MITS pilot study –Journal of Clinical Infectious Diseases Q1*

Grants: Bill and Melinda Gates Foundation grant - 50,000 US \$ for study on “Validity of minimally invasive tissue sampling in determining the cause of death in stillbirths and neonates due to neurological insults in the brain: A study in a tertiary care center in India” – Study completed

Collaborating institutes & Centers: 1. Collaboration with Co-Lab (USA) –Magee-Womens Research Institute & Foundation Pittsburg on placental data base and information

2. *Improved Characterization of Eclampsia to optimize maternal and perinatal outcomes: the ICE study, University of Melbourne, Victoria, Australia*

Conference presentations:

1. *Presentation on the MITS study in BMG Foundation grant presentation at Seattle, USA, 2019.*

2. *Ms. Athira Sreenivas (PhD candidate) - Poster presentation –BIOTECHIKA emerging areas in Biotechnology*

3. *Dr. Mary Mathew, Moderator for KAPCON 20 – 3rd Oct, Pediatric pathology session*

4. *Dr. Saraswati Mohan, Renal-Hepatic-Pancreatic Dysplasia: Fetal Autopsy Findings of A Rare Syndrome*

5. *Dr. Mary Mathew, Attended and was a moderator for Embryo-Foetal Pathology, Miid-year teaching program IAP-ID, AIIMS Bhopal, May 2022*

Additional Information

Scholarships:

1. Dr. Mary Mathew received the James McAdams Short-Term Study Stipend – 5000\$ by SPP in 2019, 1 month in UPMC Children Hospital Pittsburgh, USA under the mentorship of Dr. Ranganathan
2. Dr. Mary Mathew received IPPA (International Pediatric Pathology Association) course scholarship for 5 years. 1 week training in Portugal in September 2019, Sheffield 2020, Netherlands 2022

PhD Candidate

- Guide - Ms. Athira Sreenivas, 2020, KMC , Manipal
- Co-guide Mr. Sujesh Suju, 2022, Biotechnology, MIT, Manipal
- DAC, Member for Ms Shravya, 2022, Medical genetics



Hands-on Workshop on Minimally Invasive Tissue Sampling funded by Bill & Melinda Gates Grant (RTI), 28th & 29th Jan 2020

Manipal Centre for Benign Hematological Disorders

Coordinator: Dr Ganesh Mohan
Evaluation Period: Phase I (Year 2)

Centre Overview

Centre	Manipal Centre for Benign Hematological Disorder
Approval Date	01/12/2019
Coordinator	Dr Ganesh Mohan
Inception Date	01/04/2019
Term	Two Years
Reporting to	Dean, KMC Manipal

Statement	
Vision	To provide comprehensive care, diagnosis, rehabilitation, education and research in the area of benign hematological disorders through a multidisciplinary approach.
Mission	Multidisciplinary approach to patient diagnosis and rehabilitation
Objectives	Comprehensive Patient Care, Research

Members and Stakeholders

Team Members:

Mentors : Dr. Shamee Shastry

Members : Dr. Vasudeva Bhat, Dr. Archana MV, Dr. Shwethapariya Rao, Dr. Sushma Belurkar, Dr. Vishal Shanbhag, Dr. Vimal Krishnan, Dr. Freston Marc Sirur

Key Stakeholders Involved

Planned Activities

Milestones	Review Period	Planned Activity	Action Taken
Phase 1	06/2022	Establishing an office room. Conducting a national CME	Identifying the space required. Initial talk with International faculties on the topic of Thrombotic microangiopathy and inviting them asw faculties
Phase 2	NA		
Phase 3	NA		
Phase 4	NA		

Details of the Process and Outcome

Key Activities	Details of the Process	Measurable Outcome
Certificate Course	NIL	NIL
Workshops/ Conference	NIL	NIL
Research Grants Applied	ICMR ADHOC Grants applied. Industrial grant received. SERB Core research grant applied	Approved-1. On progress – 2 Industrial grant – 1 completed. Ongoing - 2
Research Publications (Total)	9	8 international and 1 national
Collaborations	Interdepartmental Collaborations – Three International Collaboration – One	Dr. Jecko Thachil, Hematologist from Royal Infirmary Hospital, Manchester, UK. Inter departmental – Paediatric Hemato Onco, Critical care and Emergency Medicine Inter institutional – Department of Atomic and Molecular Physics, MIT
Consultancy/ Revenue	NIL	NIL

Final Review

Target	Results	Review
Phase 1	Partially Achieved target	Partially achieved as clinical coordination still a bottleneck. Some
Phase 2	NIL	NIL
Phase 3	NIL	NIL
Phase 4	NIL	NIL

Additional Information

Photographs

Publication list:

News paper articles:

Grants:

Collaborating institutes & Centers

Any other relevant information