RESEARCH
DEPT OF PATHOLOGY
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S.No.	Topic	PI / Co PI	Funding
5640/2022	Comprehensive analysis of beta globin gene for detection of known and unknown mutation in beta haemoglobinopathies by sanger sequencing	Col Ankur Ahuja	AFMRC
5639/2022	Study of artificial intelligence (AI) on digital images acquired by whole slide scanner in evaluation of theranostics & surrogate markers in carcinoma breast and their comparison with traditional diagnosis	Dr Dibyajyoti Boruah	AFMRC
5493/2021	An immunohistochemical and ultrastructural study of podocyte injury and endothelial injury in patients of Lupus Nephritis	Lt Col Varun Bajaj	AFMRC
P/2026	Somatic and Clonal Hematopoiesis of Indeterminate Potential (CHIP) variant landscape in Polycythemia within the spectrum of Myeloproliferative Neoplasms– Molecular insights using Next Generation Sequencing	Lt Col Gautam Kumar Vasnik	AFMRC

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Project No.	Topic	PI / Co PI	Funding
ANV-24/2023	A comparative study of Von-Economo Neurons in post-mortem brain tissue of subjects who died due to suicide and subjects who died due to non-suicidal and non-violent cause of death	Col Vikram Singh	Anveshan
ANV-25/2023	PIK3CA gene mutational hot spots (E242K, E545K and H1047R) prevalence in breast cancer patients by using amplification refractory mutation system (ARMS) PCR Assay	Col Vikram Singh	Anveshan
ANV-26/2023	Genetic evaluation of severe oligozoospemia and azoospermia cases undergoing infertility treatment by cytogenomics study	Lt Col Barun Kumar Chakrabarty	Anveshan
ANV-103/2024	Validation of microphotography device for automated screening of Acid Fast Bacilli from Ziehl Neelsen stained sputum smears : A pilot study as part of Make in India Initiative	Lt Col Parikshit Sanyal	Anveshan

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Project No.	Topic	PI / Co PI	Funding
ANV-137/26	Concordance of pathologists in detection of her2neu-low/ultra-low/negative cases in Indian population	Maj Blessy Mathew	Anveshan
ANV-138/26	Cytogenetic evaluation of sex chromosome loss in older adults using Fluorescence in situ Hybridization (FISH) on human interphase nuclei	Lt Col Gautam Kumar Vasnik	Anveshan
New proposal	To evaluate the diagnostic utility of salivary and serum CYFRA 21-1 in squamous cell carcinoma of the oral cavity, oropharynx and larynx	Gp capt Pragya Sharma	Anveshan
New proposal	Evaluation of cytokine profile in cases of IgA Nephropathy	Lt Col Varun Bajaj	Anveshan

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Project No.	Topic	PI / Co PI	Funding
IIRPIG-2023-0000224	Development of an Augmented Reality Microscope for Comprehensive Cancer Screening in Cytology and Blood Smears as part of Make in India Initiative.	Lt Col Parikshit Sanyal	ICMR
ICMR/STS-2025/14016	Chromolearn – An initiative to empower Indian Medical graduates with a pre and post test module on chromosome identification	M/Cdt Nikita Pal Guide: Lt Col BK Chakrabarty	ICMR
ICMR/STS-2026-13404	Ultrastructural morphometric analysis of tubulointerstitial mitochondria in Diabetic Nephropathy	M/Cdt Tanush Jindal Guide: Lt Col Varun Bajaj	ICMR

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Project No.	Topic	PI / Co PI	Funding
NCCS/IEC/2023-1 (NCCS Pune)	Establishment of human glioma/ GBM cell lines and investigating the anti-tumorigenic efficacy of small molecules and signaling modulators	Lt Col Barun Kumar Chakrabarty, Col Vikram Singh, Col S Venkatesan, Dr D Boruah	Collaborative
IIRPSG(AN)-I-2026-0105491	Generation of Human induced pluripotent stem cells having partial Trisomy 21 and ApoE allele variants from individuals with Downs Syndrome	Lt Col Barun Kumar Chakrabarty, Dr N Singhal (NCCS)	Collaborative
-	Artificial Intelligence enabled interpretation of colonic biopsy – Discrimination between Tuberculosis and Inflammatory Bowel Disease	Lt Col Parikshit Sanyal, Col Vikram Singh, Col Venkatesan, Prof Prasenjit Das	Collaborative
-	IHC expression of PARP-1 and CSF1R in different molecular subtypes of breast cancer	Med Cdt Abhida Barretto PW: Col Vikram Singh	MUHS

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S.No.	Topic	PI / Co PI	Funding
1	Analysis of CD25, CD64, HLA-DR, Neutrophil Lymphocyte Ratio (NLR) and Neutrophil Platelet Ratio (NPR) in diagnosis of Sepsis	Maj Akshat Aggarwal Guide : Col Ankur Ahuja	Dept
2.	Pilot study of megakaryocyte morphology by digital morphometry inMyelodysplastic Syndrome (MDS) in Bone Marrow Biopsy specimens	Maj Kushal Naik Guide : Col Ankur Ahuja	Dept
3.	Evaluation of digital technique using Artificial Intelligence for quantification of plasma cells on CD138 Immunohistochemistry	Dr Mohammed N Meera Guide : Col Ankur Ahuja	Dept
4.	Analysis of Monocyte Distribution Width (MDW) as a biomarker for sepsis detection in a tertiary care hospital of Western Maharashtra: A Prospective Study	Dr Jaspreet Kaur Guide : Gp Capt Pragya Sharma	Dept
5.	Clinicopathological and immunohistochemical profile of Cutaneous tumours in a tertiary care hospital	Dr. Lipika Chawla Guide : Gp Capt Pragya Sharma	Dept
6.	Immunohistochemistry and Fluoresence In Situ Hybridisation (FISH) analysis of p53 expression in Endometrial carcinoma: a Pilot Study	Dr Ankita Sharma Guide : Col S Venkatesan	Dept

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S.No.	Topic	PI / Co PI	Funding
7.	Clinicopathological spectrum and ultrastructure changes of PLA2R positive Membranous Nephropathy – a Pilot Study	Dr. Manish Patel Guide : Col S Venkatesan	Dept
8.	To study the expression of Her2neu status in Breast cancer patients as per revised ASCO/CAP guidelines	Dr. Srishti Yadav Guide : Lt Col B K Chakrabarty	Dept
9.	Study on IHC expression of p16, p53, Ki67 and PDL-1 in oralSquamous Cell Carcinoma	Dr. Meenakshi B. Guide : Col S Venkatesan	Dept
10.	To study IHC expression of Her-2/neu, E-cadherin, Ki67 and p53 in Urothelial Carcinoma	Dr. Sushma Malik Guide : Gp Capt Pragya Sharma	Dept

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S.No.	Topic	PI / Co PI	Funding
1	A comparative study on the agreement between digital and light microscopy in Peripheral Blood Smear	Maj Kishan Kuzhali N Guide: Col Ankur Ahuja / Lt Col Parikshit Sanyal	Dept
2	To study the clinicopathological profile of MMR protein	Maj Swati Rawat Guide: Gp Capt Pragya Sharma /Lt Col Vinod Kumar Datal	Dept
3	Study of Neutrophil-Lymphocyte Ratio, Monocyte-Platelet Ratio, Platelet-Lymphocyte Ratio and Platelet Fraction in Type-2 Diabetes Mellitus	Maj Beena Tiwari Guide: Col S Venkatesan Col Ankur Ahuja	Dept
4	Automated-based cytology (LBC) PAP smear slides – A diagnostic accuracy study using WHO reference criteria	Sqn Ldr Mayank Plaha Guide: Col S Venkatesan / Col Vikram Singh / Lt Col Parikshit Sanyal	Dept
5	To study the effect of change in WHO reference criteria in semen quality parameters among infertile males	Maj Krishna Deo Shah Guide: Lt Col Barun Kumar Chakrabarty	Dept
6	To study the clinicopathological spectrum of Leprosy at a teritary care hospital in western India	Dr Komal Jamwal Guide: Gp Capt Pragya Sharma / Lt Col Pankaj Das	Dept

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S.No.	Topic	PI / Co PI	Funding
7.	Prevalence of Cytogenic abnormalities in Flow Cytometry- confirmed cases of Acute Lymphoblastic Leukemia	Dr Ranadev Ponnala Guide: Col Ankur Ahuja/ Lt Col Barun Kumar Chakrabarty/ Lt Col Renjith Verghese	Dept
8.	To study the expression of PD-L1 & Her2neu in Endometrial Carcinoma and the association with clinicopathologial correlatation	Dr. Ramesh Kota Guide: Lt Col Devika Gupta/ Maj Blessy Mathew	Dept
9.	Evaulation of CSF1R status by FISH and IHC in different subtypes of Breast cancer : Pilot study	Dr Krishnaraj Guide: Col S Venkatesan / Col Vikram Singh / Lt Col Barun Kumar Chakrabarty	Dept

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S.No.	Topic	PI / Co PI	Funding
1	To assess the impact of aging on the quantity of CD34+ hematopoietic stem cells in the bone marrow	Maj GV Archana Guide: Col S Venkatesan	Dept
2	Association of Epithelial Mesenchymal Transition in oral Squamous cell carcinoma with tumour budding and regional nodal metastasis	Maj Girish Pandey Guide: Gp Capt Pragya Sharma	Dept
3	Artificial Intelligence-Assisted Detection and Quantification of Reticulocytes on Supravital-Stained Peripheral Blood Smears: A Comparative Study with Automated Hematology Analyzer	Maj Naveen K Devdas Guide: Col Ankur Ahuja/Lt Col Parikshit Sanyal	Dept
4	Assessment of chromosomal aneuploidy in bladder cancer: A Histopathology based Fluorescence In situ Hybridization study	Capt Ribek Sunam Guide: Lt Col Barun Kumar Chakrabarty	Dept
5	Histomorphological spectrum of Renal diseases in patients of Diabetes mellitus in Western Maharashtra	Dr Amandeep Kaur Guide: Lt Col Varun Bajaj	Dept
6	Study of H3.3 G34W immunohistochemistry stain expression in giant cell rich lesion of bone.	Dr Shubham Shiva Guide: Col Vikram Singh	Dept

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S.No.	Topic	PI / Co PI	Funding
7	To study PDL1 expression and spatial distribution of CD3/CD8 tumor infiltrating lymphocytes in Colorectal Adenocarcinoma	Dr M Vijayaselvi M Guide: Gp Capt Pragya Sharma	Dept
8	A comparative study on automated ESR analyzer and westergren manual method at a tertiary care hospital.	Dr Vaishali Vaid Guide: Col Ankur Ahuja	Dept
9	Spectrum of Soft Tissue Sarcomas at a Tertiary Care Hospital	Dr Taniya Dhariwal Guide: Gp Capt Pragya Sharma	Dept
10	Study of Megakaryoctes and bony trabeculae in the bone marrow biopsy of myeloproliferative neoplasms	Dr Janvi Sharma Guide: Col S Venkatesan	Dept