

SCI- SO CHRONICLES



ISSUE NO. 2
01 MAY - 30 AUG
TRIENNIAL ISSUE



CONTINUING THE BLAZE...



ISSUE NO. 2
1 MAY - 30 AUG



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Our Mentors



Lt Gen Narendra Kotwal, SM, VSM
Director and Commandant
AFMC, Pune



Maj Gen D Vivekanand
Dean and Deputy Commandant
AFMC, Pune



Editor's Note



Dear Esteemed Members and Supporters of the Scientific Society,

I am delighted to announce the release of the second edition of our esteemed newsletter. The overwhelming appreciation we received for our inaugural issue, from none other than our college's Dean and Commandant, as well as esteemed faculty members and retired Heads of the Department of Medicine, has been both inspiring and humbling.

In this edition, we have continued our commitment to delivering high-quality content that not only showcases the remarkable achievements and research endeavors within our Students Scientific Society, but also serves as a valuable resource for our academic community. Our team has worked tirelessly to bring you engaging articles, insightful reflections, and updates on ongoing and completed research projects.

As we navigate through the ever-evolving landscape of medical science, your support and feedback remain instrumental in shaping the direction of our newsletter. We hope that this edition will continue to be a source of inspiration and knowledge for all of you.

I kindly request all faculty members from various departments to forward the undergraduate (UG) research activities conducted at AFMC, under their guidance, for publication in the upcoming newsletter.

Col Y Uday - Editor in chief
Professor,
Dept of Internal Medicine
AFMC, Pune

SMILE

Sickle Cell Morbidity By
Internal Medicine AFMC with
a focus on Evaluation



Location:
Shahada, Maharashtra



Distance:
485 Kms



Duration:
3rd to 5th May, 2023



Sickle Cell Morbidity by Internal Medicine AFMC with a focus on Evaluation



SMILE

May 4th to 5th, 2023



An initiative by
Armed Forces Medical College



STUDY >

The 'SMILE' Study was conducted in a tribal area located 500 kilometres away from AFMC Pune, specifically in Shahada, Nandurbar district, near the Maharashtra and Madhya Pradesh border in India. This tribal region is part of the sickle cell belt of India. A brain child of Col Y. Uday, the study focused on the assessment of various parameters, encompassing physical, mental, clinical, and social aspects related to Sickle Cell Disease. The study spanned over 2 days, during which more than 150 patients visiting the Outpatient Department (OPD) underwent analysis for the parameters mentioned in Figure 1.1.

Cadets Aditya Jaypalan and Hetvi Aliwala, alongside two residents, meticulously analyzed the social aspects and quantified the morbidity of these patients. Cadets Aditi Mahajan and Gaurav Jalal, conducted examinations for Splenomegaly, Hepatomegaly, Sexual Maturity Staging, and an overall general and systemic examination, with a primary focus on abdominal examination. Cadet Ritwik Johari performed a Nail Fold Capillaroscopy and a Urine examination. Cadet Arun Bhisnoi conducted cognitive assessments using the MOCA scale.

Additionally, an intern from E3, Dr. Shashwat Joshi, led a team of lab technicians involved in the collection of serum samples. These samples were subsequently used for the analysis of various endocrine parameters. This pioneering study will be extended further to gain a comprehensive understanding of the mortality, morbidity, and course of sickle cell disease in India, and how it differs from the Western population.

Parameters Assessed



Quality of life



Nail Fold
Capillaroscopy



Physical &
sexual growth



Hepatomegaly &
Splenomegaly



Cognitive
Assessment



Urine
examination



Fundoscopic
examination



Hormone Levels



Hemoglobin
Levels

PARTICIPANTS

M/Cdt Ritwik Johari
M/Cdt Aditi Mahajan
M/Cdt Hetvi Aliwala
M/Cdt Gaurav Jalal
M/Cdt Aditya Jayapalan
M/Cdt Arun Bishnoi



From Reluctance to Revelation: A Journey in Sickle Cell Research

M/Cdt Ritwik Johari
F3 Batch

While I wasn't particularly inclined towards scientific research, my decision to enroll at AFMC was driven by the pursuit of exposure that no other college could offer. Thus, when the opportunity was given by Col Uday to participate in a project centered on sickle cell anemia, I readily embraced it. This experience turned out to be profoundly humbling on a personal level.



Despite our initial enthusiasm, the two demanding days of the medical camp kept each of us on our toes for at least 12 hours each day, tirelessly striving to assist as many patients as possible. This hands-on, real-world approach to patient care in a rural setting starkly contrasted with my urban upbringing. The individuals we encountered, their challenges, myths, and their approach to disorders differed markedly from those of city-dwellers. It was truly eye-opening to witness entire families traveling up to 100 kilometers in pursuit of a single prescribed drug provided free of cost at the camp. The patients displayed remarkable compliance, and their hope in our abilities as fauji (military) personnel was both touching and motivating.

I initially joined the project due to my experience in nailfold capillaroscopy from a previous endeavor.

However, during the process, I ended up learning a great deal about other assessments conducted as part of this project. My understanding of the intricacies of research procedures and the meticulous effort and dedication required saw significant improvement. It wasn't without its challenges; there were logistical issues and some disarray on the first day, but I believe these can be addressed more effectively in future endeavors.



Even though this project coincided with our eagerly anticipated college fest, I have no regrets about missing it. This unique experience has fundamentally altered my perspective on medicine as both a profession and a way of life. To anyone presented with a similar project opportunity in the future, I would strongly advise shedding any reluctance and embracing a different viewpoint and experience. It will undoubtedly contribute to our growth as better individuals and clinicians, fostering a deeper sense of empathy.



Exploring Medical Outreach: A Transformative Journey

M/Cdt Aditi Mahajan
C3 Batch

The final two days of the SMILE study provided me with practical insights that complemented my theoretical knowledge. Reflecting on these past three days, I am immensely grateful for this experience, and I extend my gratitude to everyone involved—the administration, faculty, residents, and the cooperative local community.

Initially, I hesitated to enroll in the Sickle Cell Anemia study due to concerns about managing it alongside the ICMR project and my commitment to the organizing committee of Silhouettes. However, Uday sir explained the significance of fieldwork and serving the neglected tribal population with sickle cell disease, leading me to join the project without further hesitation. I now appreciate Sir's guidance in making the right decision.

At first, my motivation for joining was centered around writing a research article based on collected data. However, after our initial visit, I find deep satisfaction in merely being part of the project and aiding the tribal people. Regardless of whether I publish a research paper, I eagerly anticipate our next visit to interact with them and provide assistance.

I initially had concerns about embarking on my first field study in a tribal area and the language barrier. Fortunately, both challenges were less daunting than anticipated. The tribal area had good road connectivity and basic facilities, and a significant number of patients understood Hindi, facilitating communication and rapport building.

In these four days, I gained invaluable clinical exposure, conducting abdominal palpations and physical examinations on more than 70 patients.

Observing the planning and execution of such a large-scale study enhanced my attention to detail, and I am no longer inclined to overlook minor aspects. Our meeting with the district collector provided a unique experience, broadening our thinking horizons as we discussed the issues highlighted by the collector and solutions proposed by Uday Sir. Most importantly, interacting with the tribal people, whom I had only read about in books, was an experience I will cherish. Overall, this experience has stimulated my lateral thinking, empathy, and multitasking skills.

The project was well-planned and organized, but we can enhance efficiency in the future by recruiting more people for time-consuming stations like MOCA from the outset. Personally, I took more time than necessary for abdominal palpation, and with adequate practice, I am confident that the process will be faster in our next visit. In conclusion, I firmly believe that every medical cadet should have an experience serving underprivileged sections of society. If we can visit other colleges for festivals, why not areas with limited medical facilities? It is our social responsibility as doctors to work for the welfare of people and uphold the noble profession through selfless service.



What Most Medical Undergrads are Missing- and I got to Have and Cherish

M/Cdt Hetvi Aliwala
G3 Batch

During the four-day long field study in Shahada, Nandurbar, which I had the privilege to attend, I learned a lot of indispensable things. My primary role was to conduct patient interviews and elicit disease specific history besides assessing the quality of life of individuals affected by this condition.



What struck me most during this experience was the stark contrast between clinical postings and our fieldwork. Patients were more open and willing to seek treatment from us, understanding that we were there to genuinely learn and assist rather than just using them for teaching undergraduates.

I firmly believe that such field projects should be made mandatory for every medical undergraduate. They offer a richer, better hands on learning experience than any conventional clinical posting could possibly provide.

The learning experience was invaluable. It extended beyond the subject matter to the execution of field studies, fostering local collaborations, and understanding the practical challenges of working in a real-world rural healthcare setting.

This field study was a reality check. It provided me with a profound understanding of sickle cell disease and the daily struggles of those living with it. Their resilience in the face of adversity was inspiring.

These four days were just the beginning of "The SMILE Project." We had weeks of lab reports generation, data assembly, and analysis ahead of us. It was hard work, but it offered a deep and enriching learning experience, guided by the expertise of internal medicine PG residents and the mentorship of Uday Sir himself. It reinforced my passion for healthcare and the importance of compassionate patient care alongside rigorous scientific research.



Sickle Cell Fieldwork: A Voyage of Medical Insight and Compassion

M/Cdt Gaurav Jalal
C3 Batch

As someone who has always been captivated by the early diagnosis and management of incurable diseases, I was thrilled to partake in a recent fieldwork initiative led by the internal medicine department, focusing on sickle cell disease in a remote village in Maharashtra.

My passion for addressing incurable diseases was kindled by witnessing my mother's arduous battle with Rheumatoid arthritis spanning more than two decades. Upon enrolling in medical college, my interest gravitated towards autoimmune conditions and oncology. In particular, I became engrossed in early and prenatal diagnosis techniques for various neurological and haematological disorders.

Participating in this project proved to be a transformative experience, enriching my clinical knowledge and reinforcing the significance of a holistic approach to patient care. I conducted clinical assessments of over 150 sickle cell disease patients spanning various age groups, granting me profound insights into how demographic factors influence disease prevalence and severity. Witnessing the long-term ramifications of sickle cell disease on patients, notably the debilitating effects of AVN, was profoundly moving.

I gleaned that many facets of diseases elude comprehension through textbooks alone. A clinician's capacity to observe and consider a wide array of comorbidities and symptoms is pivotal for effective diagnosis and management.

My examinations revealed that a patient with a diagnosed condition can present with numerous other ailments, whether associated or unrelated. This included observing diverse dermatological conditions, epididymitis, chronic orchidoepididymitis, ocular issues, and various comorbidities, underscoring the necessity for a clinician to maintain a comprehensive perspective while evaluating patients.

I hope that my experiences in this project inspire fellow cadets to embark on similar endeavors, as they offer invaluable lessons transcending the confines of textbook knowledge. These projects foster a broader understanding of public health and enhance one's critical thinking skills. Furthermore, they provide opportunities to delve into team management and decision-making, exemplified by our team's improved workflow on the project's second day, thanks to feedback and reflections from the inaugural day. I am confident that with larger cadet participation, we could have achieved even more.

In conclusion, my participation in this project was a fulfilling odyssey that contributed significantly to our understanding of sickle cell disease and its impact on patients. I extend my heartfelt gratitude to the internal medicine department for this opportunity and eagerly anticipate engaging in similar projects in the future. Such initiatives promote holistic learning, stimulate fresh perspectives, and drive innovation in the realm of clinical practice.



Humanizing Sickle Cell Disease Research: Insights from the SMILE Project

M/Cdt Aditya Jayapalan
G3 Batch

Participating in the SMILE project in Shahda, Maharashtra, from May 5th to May 8th, 2023, marked a significant turning point in my approach to research. As I diligently gathered patient data and assessed their quality of life, I had an epiphany: understanding the human aspect of sickle cell disease is just as paramount as unraveling its clinical intricacies.



Interacting with the tribal community during this project offered a poignant glimpse into their challenges, stemming from limited healthcare access and profound cultural nuances. It underscored the critical need for comprehensive healthcare interventions that account for not only the clinical dimensions but also the unique social and cultural contexts of the patients

This profound experience significantly broadened my research outlook, instilling in me a deep appreciation for the value of patient perspectives. It highlighted the imperative of adopting a comprehensive, multidimensional approach in healthcare research. Such an approach recognizes the interconnectedness of clinical data, patient experiences, and cultural factors, ultimately leading to more effective and compassionate healthcare solutions.





Embracing Medical Research: A Journey of Discovery and Compassion

M/Cdt Arun Bishnoi
H3 Batch

I've always held the belief that engaging in research projects could offer profound insights into the realm of medical science. My enthusiasm for joining a practical research camp, where we could directly assist and treat patients, remained unwavering. Being my first project, I received invaluable support and guidance from my batchmate, Yash.

Our overarching goal during the entire camp was crystal clear: "to assist and treat as many patients as possible." Everything else took a back seat. While the preparation phase did make me a tad nervous as it was a first-time endeavor, those apprehensions dissipated once we hit the ground running. Witnessing the sheer joy and happiness on the faces of the patients made all our efforts worthwhile.

Engaging in such research projects offers medical students an array of advantages: Exposure to research, encompassing the nuances of data collection, analysis, interpretation, and a deeper grasp of the scientific underpinnings of medical practice.

Networking opportunities: These camps provide an invaluable platform to connect with and learn from our seniors and peers. We engage in the exchange of ideas, the sharing of experiences, and gain insights from diverse perspectives. This enriches our critical thinking and communication skills, both vital for effective patient care. In the process of conducting the Montreal Cognitive Assessment (MOCA), I honed my ability to convey complex information in a manner that patients can readily comprehend.

The SMILE project, aptly named, undoubtedly brought smiles to the faces of all the individuals we encountered and treated.

This research project has not only ignited a passion for future research camps within me but also left me eagerly anticipating my participation in the next one. It has the potential to lead to further research opportunities, publication possibilities, opportunities for presentations, and the unlocking of new horizons.



The valuable skills and experiences I've gained will undoubtedly contribute to my development as a competent medical professional. Moreover, they will enable me to forge lasting relationships with mentors and senior colleagues. Research endeavors can indeed be challenging and time-consuming, often pushing us well beyond our comfort zones. In my view, the most effective approach is to maintain an open mind, an unyielding willingness to learn, and to actively seek guidance from more seasoned colleagues. Participation in such projects equips me with indispensable skills applicable throughout my medical career.



OBSERVERSHIP AT TATA MEMORIAL HOSPITAL

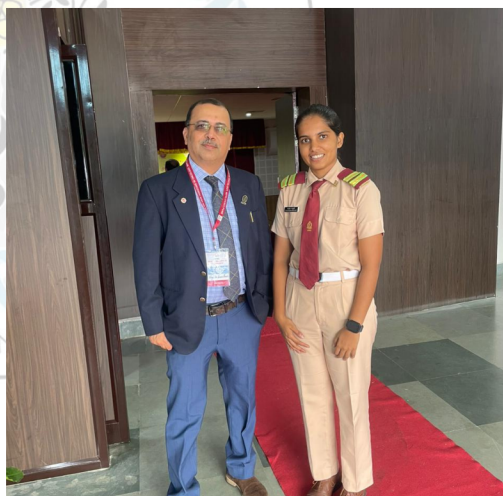
I enrolled for the 2-week Observership in the Department of Pediatric Oncology from 5th June 2020 to 17th June 2023. My clinical rotations included the outpatient settings to observe patients on cancer care. My first-week rotation was in the Solid Tumors and the next week in the Hemato-Lymphoid group.

During the morning hours, I got to be a part of the daily rounds in the wards. It was a learning experience to interpret basic lab results and discuss diagnosis. In the solid tumors rotation, I got to see cases of brain tumors, Neuroblastoma, Wilms Tumor, Ewing's Sarcoma, and more. I got the opportunity to discuss a few neuro-oncology cases with Dr Girish Chinnaswamy, HOD, Department of Pediatric Oncology. I got hands-on experience to examine a case of Osteosarcoma femur and study the findings. I was oriented to the chemotherapy protocols, Radiation therapy, and Surgery. Joint clinics headed by Pediatric oncologists, Surgeons, Anesthesiologists, Radiologists, Pathologists and more were conducted every day to plan the management and prognosis of few cases.

In the next week rotation, I got to see cases of Leukemia and Lymphomas in the pediatric group. The treatment protocols mainly consisted of Chemotherapy and Bone Marrow Transplant. I assisted in a few Bone marrow aspiration and biopsy surgeries. Even got to do PICC (Peripherally Inserted Central Catheter) insertion for the delivery of chemotherapy. I also had the chance to attend seminars and lectures by expert professors during my term as observer.

A visit to ACTREC was organized under the guidance of Dr. (Surg Cdr) Gaurav Narula. Got to learn CAR-T & Cell therapy, where immune system is put to work to tackle cancer. I was toured the manufacturing site of CAR-T cells and got to briefly study the prognosis of a few patients who were started on this therapy.

As an observer at Tata Memorial Hospital, I got a perspective of understanding various tumors, pathology, diagnosis, and management protocols. It was also enriching to know about active research on CAR-T cells and other therapies.



M/Cdt Prathyusha Davuluri
F3 Batch



MY TRYST WITH IISC, CBRAIN INTERNSHIP

It was the month of May, 2023. Our batch had just finished with the passing-out parade, and we were now freshly-minted Alumni of our wonderful institution. The newly-commissioned officers of E3 batch were proceeding on posting to their respective places of internship each successive day, a month after the declaration of results. It was during this period that I decided to apply for the prestigious research internship conducted by the Centre for Brain Research (CBR), Indian Institute of Science (IISc). The application process in itself was smooth, and involved the submission of a statement of purpose, along with details about one's relevant achievements, if any. The internship invited applications from a diverse assortment of students, which included M.Sc/ M.E/ M.Tech/B.E/ B.Tech in any area of Life Science/Biotechnology, or relevant areas of Computer Science, EECS, Data Science, Mathematics, and Statistics; and MD/MS/MDS/MPH/MBBS students. The results were declared after a waiting period in which the 6000+ applicants from across the country were screened, and 20 were selected to undergo the internship. I was fortunate to be one among the selected 20. As I had already opted-out of service liability, I applied for a 3-month extension of my medical internship, which was duly granted, given the NMC provision allowing students to complete their internship within 02 years of the date of commencement. Following this, I proceeded to Bangalore to join the research internship at CBR, IISc.

The three months spent there provided me with an immersive experience of working in a purely research-centric environment. My schedule was a busy one: for, in addition to the work at CBR, it also included two hours-worth of driving in Bangalore's famed traffic. An average day at CBR would involve a variety of activities. These could include working on manuscripts, preparing presentations on academic topics, journal clubs, guest lectures, learning about and getting trained on research techniques such as EEG, neurofeedback, biothesiometry, biofeedback, transcranial electrical stimulation, etc. In addition, being among the few medical students in the internship, I also had the opportunity to educate and train my colleagues from basic-science backgrounds about medical aspects of neurosciences, in order to enable them to better appreciate the translational outcomes of their research. Being a socially-responsible institution, CBR would organise outreach events to educate the general public about dementia and other neurodegenerative diseases. I had the privilege of being the sole intern who presented as a speaker along with members of the outreach team at the event. I was also part of the CBR Infographics Team which designed outreach posters towards the same cause.

In all, as I left CBR to resume my medical internship, I emerged richer, not just in terms of the stipend offered and the four publications that got accepted in journals, but also in terms of experience, having a better appreciation of life in academia.

Dr Ashvin Vardharajan
E3 batch

Field Research at Shahjahanpur – Screening of healthy soldiers sojourning to HAA for SCT

2-day Camp

1 Faculty & 2-UGs involved

349 Soldiers Screened: 4.8% (17 individuals had Hemoglobinopathy)





STUDY >

We got cladded into our uniforms and set up counters in their section hospital. One counter to fill up the proforma where their pre-induction medicals about their CBC, LFT, RFT, vitals that were fed into their proformas and a detailed history about their native place, ethnicity, which are very crucial regarding our project since we are trying to trace the sickle belt of India. Then the history of sickle cell anaemia was asked and a detailed pedigree chart of three generations was drawn so that if further sickle cell trait gets diagnosed then proper genetic counselling can be given to them. A key aspect of our research was to draw blood samples and scan them for the presence of the sickle cell trait, with the aim of aiding in its eradication. This journey allowed me to witness the significance of our work in safeguarding the health and well-being of the troops and contributing to broader public health efforts. This reflection would be incomplete if I didn't appreciate all the help we got from the nursing assistants and paramedical staff who helped us draw the blood samples, segregate them according to their serial numbers, and fill out their proforma. We slowly gained the confidence to draw blood and after that a clinical examination was done to check for pallor, icterus, splenomegaly, hepatomegaly and other derangements was noticed like diffuse lipomatosis, dermatitis etc. to name a few. Sir himself made us palpate the few cases of hepatomegaly and splenomegaly which gave us a first-hand experience as to how you're supposed to interact with patients, how you're supposed to make them feel comfortable, the demeanour with which you speak and most importantly the kindness and confidence you instil in them. This activity gave us a hands-on experience on clinical examination.



Duration:
6th to 10th May, 2023

Parameters Assessed



Hemoglobin
Type and levels



Renal Function
Tests



Liver Function
Tests

PARTICIPANTS

M/Cdt Elizabeth Phillip
M/Cdt Harshit Prabhakar

Unlocking Insights: My Journey to Shahjahanpur and the Sickle Cell Trait Challenge

M/Cdt Elizabeth Phillips
G3 Batch



It all began when we finished presenting our symposium on postpartum depression for the occasion of the platinum jubilee celebrations, and Uday sir had called us to his office where he motivated and inspired us to take up our own projects and set personal goals to conquer them. It was then he told us about this incredible opportunity for the special screening of military troops travelling to high altitude, and as I had already passed on an opportunity to be a part of another field research project of sir's to Kasurdi this reflection would be incomplete without thanking Col Y Uday who gave me this opportunity to go to Shahjahanpur. It was still very uncertain as to even if undergraduates would even be allowed to go on this research project but it sure was Sir's sheer willpower that made this trip possible.

Reflecting on our field research trip, a sense of fulfilment washed over me. The research we conducted had the potential to positively impact the lives of troops and contribute to the larger goal of eradicating sickle cell trait. Our findings could inform policy decisions, improve medical interventions, and provide valuable insights for genetic counselling and awareness campaigns.

The journey taught me the importance of interdisciplinary collaboration and the power of research in addressing public health challenges. It allowed me to witness the dedication of military personnel, who not only protect our nation but also actively strive to safeguard their own health and that of their comrades. The experience deepened my understanding of the complexities surrounding sickle cell trait and reinforced the significance of early detection and intervention.

If possible every undergraduate student should receive such an opportunity to expand their vision and have a broader outlook on topics related to their curriculum.

This trip has been such an enriching learning experience and still continues to be as we move on with our data analysis. This trip has been truly enlightening and has now started to make me look at every instance with a scientific eye. This experience will surely enhance my confidence in all my academic sessions and all my future endeavours. The person I would like to thank from the bottom of my heart would be Uday sir who has guided me throughout the entire project and will forever be grateful to him.



In conclusion, the field research trip to Shahjahanpur was an extraordinary opportunity for personal and professional growth. Collaborating with my professor, engaging with military personnel, and contributing to the eradication of sickle cell trait was a privilege. This experience further solidified my passion for research and its potential to bring about positive change in society. I am grateful for the opportunity to have been part of this meaningful endeavour and look forward to future research projects aimed at improving public health and well-being.



Unlocking Insights: My Journey to Shahjahanpur and the Sickle Cell Trait Challenge

M/Cdt Harshit Prabhakar
G3 Batch

Embarking on my first-ever field research trip to Shahjahanpur was a momentous occasion in my medical journey. The study revolved around conducting pre-induction medical testing on a troop of army personnel, who were soon to be deployed in a high-altitude area. It was a great learning experience and more so, it did not feel like work at all, our mentor, Col Y Uday made sure that we enjoyed the trip all along with minimal difficulties. We were thoroughly reassured that upon facing any stone on the road, he was ready at will to help us out. My involvement in this project was instead a very abrupt decision. I had never thought of moving to a location over 1500 km away to conduct field research. One fine evening, I received a call from Uday sir regarding this study, briefly explaining the outlines of the study, and upon learning that I would have a mini trip and a break from my daily routine for an adventure, I had already made up my mind before the question was asked. Little did I know that this trip would turn out to be way more meaningful and a learning experience than just the trivial fun that I had expected it to be.

From the moment I had given my approval for this study, my mind was locked in on the fact that I would try to appreciate every form of learning that would help me grow.

After over 30 hours of travel, we arrived in the district. I was very humbled by the warm hospitality of the Captain and the Commanding Officer of the unit. The rooms we stayed in and the mess services offered to us were commendable. This, being my first experience in an army cantonment, I was completely impressed by the arrangement.

We began our study that evening itself, and we very quickly realised that we had long hours to toil.

Throughout the study, I actively participated in various aspects of the research process. Learning the value ranges of all the pre-induction medical tests, administering blood tests, performing clinical examinations and history taking allowed me to grasp the intricate details of patient care and disease management. The troop's resilience and dedication to serving their country even in challenging conditions inspired me deeply as well. We would set a deadline for each day, carefully mapping our entire schedule and the prospects of this study in future. These were the parallel learnings that I could experience uniquely.



To all my fellow college mates, I urge you to actively seek out opportunities for involvement in similar field research projects. Engaging in such experiences not only broadens your perspective but also equips you with invaluable skills and knowledge that textbooks alone cannot provide. This coupled with all the side-learnings that essentially shape us up, the shower of knowledge from every new officer we meet along the way, and the tight bond we make, all help us a long way into our lives.

SUMMER INTERNSHIP



GOAL



SKILLS



KNOWLEDGE



MENTORING



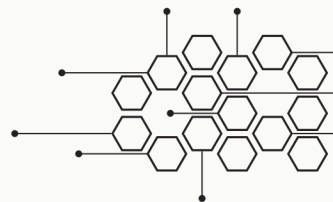
PRACTICE



OPPORTUNITY



TRAINING



Summer Internship Programme on MEDICAL ONCOLOGY at BKL Walawalkar Rural Medical College , Ratnagiri



M/Cdt Arshiya Duhan
F3 Batch

I participated in Summer Internship Programme for two weeks, from June 20th to July 2nd, 2023. My primary goal was to understand the differences in work ethics and principles between civil colleges and my previous experiences and gain insight into the medical profession in a different setting. Despite language barriers with Marathi-speaking patients, colleagues Indrajeet and Shreya graciously helped bridge the gap. Dr. Ashutosh Jain, the Medical Oncologist and our guide, emphasized the importance of a multimodal approach in the field, clinical and soft skills, and maintaining a healthy work-life balance for medical professionals. During Radiation Oncology rotations, we delved into radiology principles for diagnostics and therapy. In addition to language barriers, we faced limitations in food choices and transportation availability. Overall, this internship expanded my perspective and understanding of the medical profession and enhanced my knowledge of complex diseases like carcinomas.

Summer Internship Programme on MEDICAL ONCOLOGY at BKL Walawalkar Rural Medical College , Ratnagiri

I participated in the MUHS Summer Internship Programme for two weeks from June 20th to July 2nd, 2023. Dr. Ashutosh, our faculty, structured the sessions to prepare us for our upcoming MBBS exams while imparting a solid foundation in oncology. The Radiotherapy rotations were particularly fascinating, allowing us to observe various radiotherapy machines like LINAC and Bhabhatron II. We also learned how to trace organs for targeted radiotherapy with the guidance of a radiation oncologist using specialized software. A significant challenge we faced was the language barrier, as most patients didn't speak Hindi, requiring us to rely on our Marathi-speaking colleagues for communication. Overall, this internship provided valuable insights into oncology and allowed us to establish meaningful connections. Despite its rural setting, many facilities were comparable to tertiary care centres. I recommend this internship to those interested in oncology, particularly if they are proficient in Marathi.



M/Cdt Shivam Singh
F3 Batch

SUMMER INTERNSHIP



GOAL



SKILLS



KNOWLEDGE



MENTORING



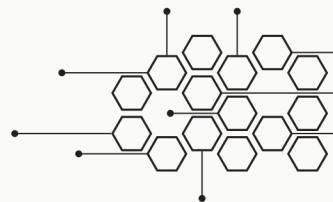
PRACTICE



OPPORTUNITY



TRAINING



Summer Internship Programme on RESEARCH METHODOLOGY at National Institute of Naturopathy , Pune



M/Cdt Satyam Raj
H3 Batch

During the MUHS Summer Internship Program 2023 at the National Institute of Naturopathy in Pune from June 15th to July 14th, 2023, my primary objective was to gain insights into research methodology, particularly epidemiological study designs and literature search methods. Regular assignments and a practical survey-based study enriched our learning experience. This internship significantly expanded our understanding of scientific research, fostering a strong scientific mindset. It has motivated us to pursue research in various medical science domains. In summary, the MUHS Summer Internship Program 2023 at the National Institute of Naturopathy was a valuable experience that deepened our knowledge of research methodology and ignited our passion for future research pursuits.

Summer Internship Programme on HEALTH INFORMATICS at MGIHI , Jaipur

During the MUHS Summer Internship Program 2023 at MGIHI, Jaipur, I focused on HEALTH INFORMATICS for two weeks from June 26th to July 8th, 2023. As a SIP student, I learned software, databases, and analytical tools for processing biological data, designed medical applications, and explored ethical aspects. I gained efficient information retrieval skills, problem-solving acumen, and patient-centric decision-making abilities. Additionally, I managed patient health records using MySQL and honed my data analysis skills. Guided by Dr. Abhishek Jordan, and with support from Principal Maj. Gen. (Dr.) A.k. Singh, this internship bridged medical science and information technology, igniting my passion for health informatics across diverse domains within medical sciences.



M/Cdt Deven Parihar
H3 Batch

SUMMER INTERNSHIP



GOAL



SKILLS



KNOWLEDGE



MENTORING



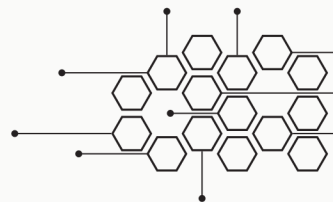
PRACTICE



OPPORTUNITY



TRAINING



Summer Internship Programme on COMPUTATIONAL AND STATISTICAL GENOMICS at National Institute of Biomedical Genomics , Kalyani



M/Cdt Suprit
Mukherjee
H3 Batch

I participated in the MUHS Summer Internship Program 2023 from June 19th to July 18th, 2023. This program focused on "Computational and Statistical Genomics," offering insights into rare disease diagnosis and treatments. Under Dr. Nidhan Kumar Biswas' guidance, I mastered Genomics and honed practical skills, including LINUX OS, R programming, and Python coding for genomic data handling. The program included lectures on Coronavirus evolution and SARS-CoV-2 variant emergence. I conducted research, analyzing genomic data to create a presentation titled "The Evolution of Coronavirus and SARS-CoV-2 Variants: Clinical Correlations." I also toured the wet lab, witnessing the process from sample collection to genomic data generation. Computational and Statistical Genomics offers immense potential for advancing disease diagnosis and treatment, especially for rare diseases and complex conditions like cancer. This internship provided invaluable insights into this promising field, setting the stage for future contributions.

Summer Internship Programme on RESEARCH METHODOLOGY at National Institute of Naturopathy , Pune

I participated in the MUHS Summer Internship Program for four weeks, from June 15th to July 14th, 2023. My primary goal was to delve into Research Methodology due to my keen interest in the field. Specifically, I aimed to understand Epidemiological study designs and literature search methods. Our faculty, Dr. Srikanth Muralidharan, was highly qualified and experienced in research. He efficiently and comprehensively taught us Epidemiological study designs, ensuring a thorough grasp of the subject. We received regular assignments aligned with our learning goals, including a short survey-based study. This internship greatly expanded our knowledge of scientific research and nurtured our scientific temperament. We now look forward to pursuing research in various medical science disciplines and contributing to recognized journals.



M/Cdt Sparsh Dhir
H3 Batch

sno.	Title	Cadet	Dept	Faculty
1.	<i>Title: Awareness and acceptance of eSanjeevani portal among parents of children attending pediatric OPD in a tertiary care hospital against the background of COVID-19 pandemic.</i>	<i>M/cdt Jaiprakash Gurav</i>	<i>Dept of Pediatrics</i>	<i>Lt Col Manish Kumar</i>
2.	<i>risk factors influencing the recurrence of dermatophytosis in non-diabetic patients of tinea corporis; a case control study</i>	<i>M/cdt Vaibhav Chhablani</i>	<i>Dept of Dermatology</i>	<i>Col Vinay Gera</i>
3.	<i>Assessment of Nikshay Poshan Yojana in Providing Nutritional Support To Registered Tuberculosis Patients at a DOTS in Western Maharashtra: A Cross-Sectional Study</i>	<i>M/cdt Shahbaz Aslam</i>	<i>Dept of Preventive and Social Medicine</i>	<i>Col Rajesh Sahu</i>
4.	<i>Prevalence and predictors of high screen time in children and its impact on their physical activity and Academic Performance</i>	<i>M/cdt Aniket Jaiswal</i>	<i>Dept of Preventive and Social Medicine</i>	<i>Col D S Faujdar</i>
5.	<i>Knowledge, Attitude and Practices regarding Effects of Air Pollution on Health and Assessment of Pulmonary Function amongst Petrol Pump Workers in Pune Cantonment</i>	<i>M/cdt Jaypal Singh Rathore</i>	<i>Dept of Preventive and Social Medicine</i>	<i>Col Swati Bajaj</i>
6.	<i>A cross sectional study on association between family support and patient health behaviors in TB patients in Western Maharashtra.</i>	<i>M/cdt Rahul</i>	<i>Dept of Preventive and Social Medicine</i>	<i>Surg Capt Shabeena Tawar</i>
7.	<i>Assessment of quality of medical certification of cause of death (MCCod) in a tertiary care hospital in Western Maharashtra</i>	<i>M/cdt Rhea Rao</i>	<i>Dept of Preventive and Social Medicine</i>	<i>Lt Col Ayon Gupta</i>
8.	<i>Dermoscopy of benign skin tumors in skin of colour</i>	<i>M/cdt Shruti Maria Thomas</i>	<i>Dept of Dermatology</i>	<i>Lt Col Nishu Bala</i>

sno.	Title	Principal Worker	AAA Grant
1.	Assessment of CD38 Expression by flow cytometry in Acute Leukemia and its Correlation with patient profile and prognosis	M/cdt Prathyusha Davuluri	G Batch UG research Scholarship
2.	Telehealth: Our New way forward. A RCT on Chronic Non-Healing Ulcers followup comparing Telehealth and Conventional OPD Visits in Maharashtra	M/cdt Jaiprakash Gurav	G Batch UG Scholarship
3.	Preevalence of Hiradenitis Suppurativa amongst High Risk Group Individuals	M/cdt Karthik Rayapureddi	Brig Arjun Deo Agarwal UG Research Scholarship
4.	Six decades of Delivery Mode Trends: A Retrospective Study of a Tertiary Care Hospital of Western Maharashtra	M/cdt Shubham Kumar	Brig Arjun Deo Agarwal UG Research Scholarship
	Analysis of Antimicrobial Resistance Profiles and Endotracheal Biofilm Composition in Mechanically Ventilated Patients	M/cdt Vedant Shekhar Jha	G Batch UG Scholarship
	Prevalence of Sleep Disorder Spectrum in Children with Autism Spectrum Disorder	M/cdt Shantanu Bhor	G Batch UG Scholarship
	Descriptive Study to Assess Changes in Status of the Critically Ill Patients who Underwent Intrahospital Transport for MRI/CT Scan	M/cdt Yalagala Lalitha Krishna	Flt Lt Dishant Tyagi UG Research Scholarship
	Drug Utilisation Study of Geriatric OPD patients in Western India's Tertiary Hospital	M/cdt Saumya Singh	Reuel Russel Mordecai UG Research Scholarship

sno.	Title	Principal Worker	AAA Grant
1.	<i>A study of Contraceptive Use by Women of Reproductive Age Group in Pune</i>	<i>M/cdt Rhea Rao</i>	<i>Flt Lt Dishant Tyagi UG Research Scholarship</i>
2.	<i>Prospective Observational Pilot Study on Quality of Life in Patients with Ventral Incisional Hernia using EuraHS-QoL questionnaire in Western India</i>	<i>M/cdt Harshit Prabhakar</i>	<i>G Batch UG Scholarship</i>
3.	<i>A Pilot Study on the Effects of emergency C-section on mother and its Implications in Mother Infant Bonding</i>	<i>M/cdt Manish P</i>	<i>G Batch UG Scholarship</i>



sno.	Title	Cadet	Dept	Faculty
1.	Cytogenomic evaluation of 22q11.2 microdeletions in adult male Schizophrenia patients.	M/cdt Gaurav Jalal	Dept of Pathology	Lt Col Prateek Yadav & Lt Col Barun Chakraborty
2.	Assessment of Quality of life in Paediatric CKD patients.	M/cdt Sushrut Mokashi	Dept of Pediatrics	Dr. Suchi Acharya

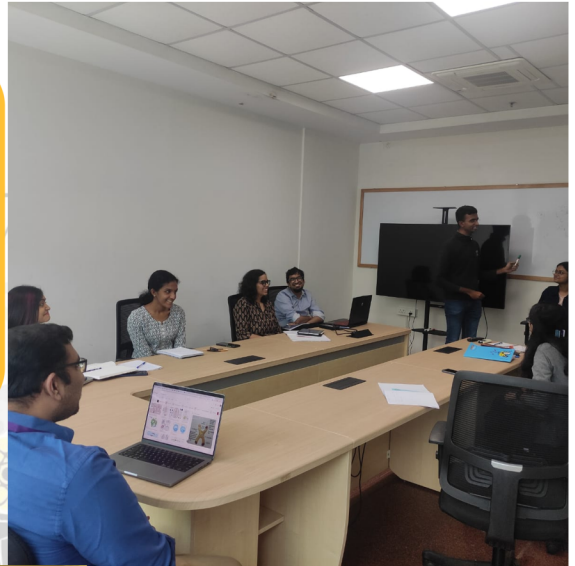


Thank you...

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Attention medical cadets! We cordially invite you to contribute your scientific work to our Tri-annually magazine/newsletter. Share your valuable insights, research findings, and discoveries with our esteemed readership. Join us in fostering knowledge exchange and collaboration within the scientific community.

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01 May - 30 Aug 2023

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