



RESEARCH NEWS LETTER

VOL-1, NO-1 JANUARY 2014

From Editor's Desk



Dr. Navbir Pasricha

A historical perspective of the medical sciences, shows that centuries of work has been amassed to produce our current understanding of the human body and disease, from Hippocrates to Galen, William Harvey to Pasteur, Mendel and Darwin. The list is endless but the pattern is the same: each built upon previous work and produced valuable knowledge which constitutes our current understanding. It is to medical science and research that we owe these advances in understanding, moving from the empirical and observational to the scientific. It is in our best interest to continue this research to keep the foundations of health care sound.

Era's Lucknow Medical College and Hospital is pioneering self-reliance in medicine by research and thereby developing new technologies and treatment protocols. Medical students are encouraged to develop a scientific temperament so that instead that they face research at the level of post graduation directly, they are caught young, motivated to work with mentors, gain ideas from them and investigate into the new and unseen frontiers of medicine.

Lewis Thomas put it eloquently in the final paragraph of his book, *The Medusa and the Snail*: "We need to know more ... We have discovered how to ask important questions, and now we really do need, as an urgent matter, for the sake of our civilization, to obtain some answers. We now know that we cannot do this any longer by searching our minds, for there is not enough there to search, nor can we find the truth by guessing at it or by making up stories for ourselves. We cannot stop where we are, stuck with today's level of understanding, nor can we go back ... We need science, more and better science, not for its technology, not for leisure, not even for health or longevity, but for the hope of wisdom which our kind of culture must acquire for its survival."

From the Desk of Director Research



Prof A.N. Srivastava

Research is one of the four basic pillars of any medical institution. Presently there has been a lot of interest by the government at national level and Medical Council of India to infuse and inculcate this in medical students right from the beginning, whereas for faculty members it is felt as almost mandatory.

Recently our young and dynamic

Chief Minister Shri Akhilesh Yadav while inaugurating an academic function in ELMC&H, appreciated the research work being conducted here and instigated us to do more and more for the betterment of patients and mankind at large. We are presenting the first issue of research news letter in our college, which we hope shall try to give atleast some important information about what is being done in ELMC&H, surroundings and in the world. Please feel free to give your views and any relevant information regarding research.



Prof Brig T. Prabhakar

college and we have

Message from Principal Dean & CMS, ELMC&H

I am happy to note the publication of research news letter of our esteemed institution. We are taking all pains to inform our faculty and residents about the research which is being conducted in this college and we have been making all efforts to involve them in this.

This news letter shall publish all information regarding research and welcomes suggestions from everyone who is involved in research.

Message from desk of Director Academics



Prof Farzana Mehadi

I believe that this shall serve as a platform for interaction and facilitate the faculty and residents to benefit from each other's work. I wish it all the success.

Message from Mr. Mohsin Ali Khan, Secretary EET



Mr. Mohsin Ali Khan

It gives me great pleasure that the dream envisaged by us for ELMC&H as a premier research institute is taking shape day by day and the publishing of this research news letter is one step further in this direction. I would again reiterate that we are firmly committed towards research to improve the condition of the masses in general and health in particular and would take this opportunity to invite our students and faculty for greater dedication towards it.

Research News from ELMC&H

Research Projects completed in 2013

1. Role of interleukin-6(IL-6) for diagnosis of neonatal sepsis: **Dr Kabir Ahmed, Dr Savitri Thakur**
2. Prognostic value of Lipid Profile in diabetic nrentinomaculopathies -An observation: **Dr Ruby Malhotra.**
3. Comparison of electrcautery, radio surgical ablation and chemical cautery as treatment modality of xanthelesama patients : **Dr Savita Chaudhary**
4. Prevalence of vitamin D deficiency in patients with pulmonary tuberculosis and effects of vitamin D supplementation on response to treatment: **Dr Ritu Karoli**
5. Therapeutic role of vitamin B12 injection in chronic subjective tinnitus-A pilot study: **Dr Charu Singh.**
6. Mobile phone usage and its co-relation with the otological problems: A professional college based study: **Dr Ruchir Dhawan**
7. Introduction peer assisted learning for medical undergraduates in obstetrics & gynecology: **Dr Uma Gupta**
8. Correlation of main renal artery diameter with the presence of an accessory renal artery in healthy voluntary kidney donors-A CT angiography based study: **Dr Alka Nagar**

Research Projects Approved

1. Chronic stress, telomere shortening and neuropeptides/ neurotransmitters derangement: a correlative study in poorly performing medical students: **Mr Mohsin Ali Khan**
2. Association of GNB3, NET, SDF-1 β , eNOS and KGNJ11 genes polymorphism with type 2 diabetes mellitus in North Indians: **Dr Farzana Mehdi**
3. To study the anticancer activity of aqueous plant extract on breast cancer cell lines and expression of BRCA1, BRCA2, ATM, CHEK2, and TP53 genes. **Dr Farzana Mehdi**
4. Incorporation of clinical skills training through clinical skills laboratory as an essential learning tool in MBBS curriculum. **Dr Farzana Mehdi**
5. Salivary and serum endotheli1 and EGFR in oral cancer and pre-cancer as diagnostic biomarker: **Dr A.N. Srivastava**
6. Expression and analysis of EGFR, p16 INK 4, Ki 67, tissue laminin, serum TNF- α & IFN γ and their association with high risk HPV positive cervical cancer cases: **Dr A.N. Srivastava**
7. Does maternal saliva contain fetal DNA usable for prenatal diagnosis? **Dr. M. S. Siddiqui**
8. 3-D Computational under-graduates teaching of cellular molecular pathology: New Horizon & tool for pedagogy: **Dr Sharique Ahmad**
9. Animation an interesting technology, to teach medical students: **Dr. Nitin Pandey**
10. Inhibitory effect of copper on bacterial and fungal growth: **Mr Mohsin Ali Khan**

STS Projects completed/undergoing in Era

1. Pre-operative prediction of difficult laparoscopic cholecystectomy- A retrospective study. **Miss. Chhaya Kushwaha ,Mr. Javed Akhtar, Dr A.H. Rizwi**
2. Cytokeratin 5/6 expression in benign and malignant breast disease.: **Miss Samreen Kazmi, Dr A.N.Srivastava**
3. Universal sample processing methodology for detection of Mycobacterium tuberculosis in pulmonary and extra pulmonary specimens by smear microscopy and culture: **Dr Shabeen Jamal, Dr Vineeta Mittal**
4. Assessment of the expression of estrogen and progesterone receptors in benign gallbladder lesion: **Miss Alisha Abbas, Dr A.N.Srivastava**
5. A study to assess the knowledge, attitude & practice regarding HIV amongst college students: **Mr Mohd. Talib, Dr Pratibha Gupta**
6. Role of external auditory canal preparation, an important preoperative criteria for ear surgery: **Dr Ankit Gupta, Dr Rahul Karwatra**
7. To study the prevalence of nephrolithiasis in medical students and compare it with prevalence in general north Indian population: **Dr Gagandeep Singh, Dr Zeba Siddiqui**

U.G. STS Projects Approved 2013

1. Detection of ALDH-1 and NANOG positive oral Cancer stem cells in Oral leukoplakia. **Aliya Gul 2nd Prof**
2. Adenomatous Hyperplasia of Gall Bladder in our surrounding population and its succptibility of converting into malignancy. **Amber Rana 2nd Prof**
3. Detection of CD133 stem cell markers for oral cancer. **Anjali Giri 3rd Prof**
4. Micro RNA – 21 Over Expression in cases of Oral Leukoplakia and Cancer as a prognostic Marker **Chandni Jain 2nd Prof**

Global Research News

1. **Meditation changes gene expression, study shows:** Practitioners have been attesting to it for years, and now medical science is waking up to the idea that meditation really does have health benefits. A new study, published in the journal *Psychoneuroendocrinology*, has discovered specific molecular changes in the body after a period of mindful meditation
2. **Advanced-stage ovarian cancer treated with targeted nanomedicine:** Researchers at Rutgers, the State University of New Jersey, have used a targeted nanomedicine approach to deliver small molecule drugs and successfully treat mice with deadly advanced-stage ovarian cancer. In their study paper, the researchers describe how they used small molecules, called inhibiting RNA molecules, to attack the genes of the excess CD44 protein in metastatic ovarian cancer cells isolated from patients.
3. **Younger women more likely to be hospitalized and die from acute myocardial infarction:** Young women, ages 55 years or below, are more likely to be hospitalized for an acute myocardial infarction (AMI) and to die within the first 30 days than men in the same age group, according to a new study published in Journal of Women's Health, a peer-reviewed publication from Mary Ann Liebert, Inc., publishers.
4. **A mobile phone application to detect skin cancer:** A mobile phone application which can assist clinicians perform fast and accurate diagnosis of skin cancers and ailments has been developed by IIT Kharagpur students. The application 'ClipOCam-Derma' which can be used on any smart-phone has been developed in the School of Medical Science and Technology at IIT, Kharagpur, led by research scholar Debdoot Sheet. It can help physicians speed up diagnosis and handle more patients within a shorter time. The innovation has won the 'GE Edison Challenge 2013' recently in Bangalore and has been awarded an incubation prize of Rs 10 lakhs.
5. **Indian scientists invent insulin pills for diabetics:** In a big breakthrough, Indian scientists have done what medical science has been trying to achieve since 1930 - an insulin pill for diabetics. Sanyog Jain from India's National Institute of Pharmaceutical Education and Research combined two approaches to shield insulin from the digestive enzymes and

then get it into the blood. They packaged insulin in tiny sacs of liposomes & then wrapped the liposomes in layers of protective molecules called polyelectrolytes. To help these "layersomes" get absorbed into the bloodstream, they attached folic acid, that helps transport liposomes across the intestinal wall into the blood.

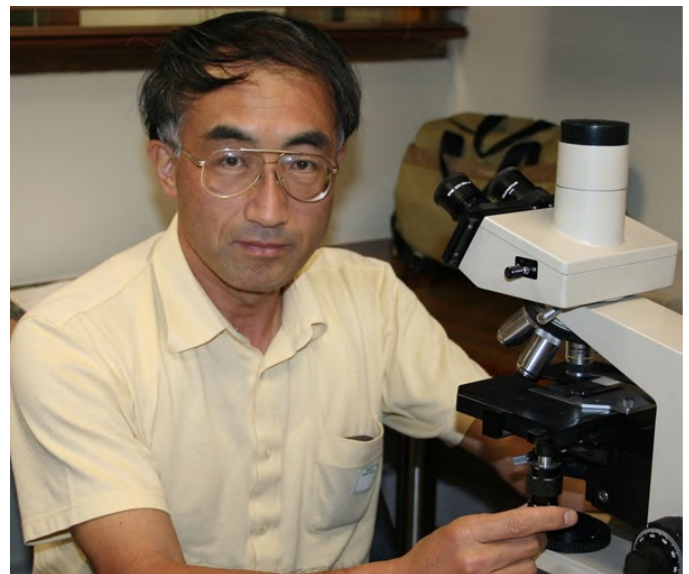
6. **VEINROM-The safest drug delivery system** : Erroneous intravenous (IV) drug administration is a common and potentially lethal problem. It is estimated that 1 in 133 drug administrations result in a potentially life-threatening error. Previously, no safety features that address erroneous IV drug administration have been added to the fluid delivery system used in anesthesia and critical care. Researchers at University of Iowa have created a unique drug delivery system that would have a unique lock and key delivery system, each port with a uniquely shaped connection only accessible by matching syringe containing the precise drug to be administered.
7. **3-D Medical Animation**: ELMC&H is experimenting in creating newer 3-D animations in Medical Education. Animations explain more in less time and any structure can be cut in half or made transparent, allowing audiences to see through anything and focus purely on the most important aspects of the presentation. It depicts an accurate visualization by exploring the depths and intricacies of science that cannot be created or replicated from a 2-D illustration, sketch or even live action.



Chief Minister Uttarakhand Akhilesh Yadav Appreciates Research Work Undertaken in ELMC&H



Nobel Laureate Prof Zur Hausen Addressing the Faculty & Students, illuminating about his Research Journey in Cervical Cancer



Prof Kochi Honma Visits ELMC&H

Faculty News

1. **Dr Navbir Pasricha** and **Dr Sharique Ahmad** attended 3 day workshop on "Frontiers in medical genetics and hand's on workshop on DNA Diagnostics 2013"
2. **Dr Sarita** presented a paper in the International Congress of Dermatology, held in Delhi in December 2013

Awards/Recognition of faculty

1. **Dr Taruna Singh**, Asst Prof., Radiology won 2nd prize in Oral Presentation in ONCO-13 National Conference in Cancer Research, ELMC&H on 12th & 13th February 2013
2. **Dr Prakriti Shukla**, JR-3, Pathology won 2nd prize in Oral Presentation on Skin Tumours in UP-PATHCON in Muradabad in March 2013
3. **Dr Sanjeev Singhal**, JR-II, 2nd prize in Poster Presentation in ONCO-13 National Conference in Cancer Research , ELMC&H on 12th & 13th February 2013
4. **Dr Sonal**, JR-II, 2nd prize in Poster Presentation on during Skin and Lung Pathology Conference , ELMC&H, October 2013
5. **Dr Shipra Singhal**, JR-III Microbiology, won best poster in Serology in UP-MICROCON 2013, held in Meerut and 3rd prize for best oral presentation during Skin and Lung Pathology Conference, ELMC&H, October 2013
6. **Dr Ayesha Ansari**, JR-I, Microbiology won first prize for best oral presentation in 13th annual conference of Indian Society of Hospital Waste Management held at KGMU, Lucknow on 7th & 8th Dec, 2013.

Upcoming Conferences/Seminars/Workshops

1. **13th Jan.** 5-days Hands-on Workshop on Molecular Biotechnology and Bioformatics Pune, India.
2. **27th Jan.** National Symposium on Innovation in TB Diagnostics, Drug Targets and Biomarkers & CME on 'Innovation in Molecular and Immunodiagnosics for PTB & EPTB in India' Sevagram, Wardha, India
3. **Feb. 9th** 1-Week Hands-on Workshop on Human/Cancer Cell Culture Techniques & MTT Assay Pune, India.
4. **8th Nov.** 5th International Conference on Stem Cells and Cancer (ICSCC-2014) : Proliferation, Differentiation and Apoptosis New Delhi, India.

Important Announcement

ICMR STS for U.G.: Registration begins on-line in Jan 2014 for details contact Research Cell, ELMC&H.
Invitation for intramural projects by Era faculty, Post Graduate students and interns upon you for possible inclusion in Era Research Newsletter.

NEW BEGININGS IN ERA

A unit of "Metabolic disease initiative, Nutrition & Disease prevention" is going to be started in Era's Lucknow Medical College & Hospital, Lucknow with participating departments being Medicine, Endocrinology, Physiology, Pathology, Bio-Chemistry, Pediatrics, Nephrology, Pediatric Nephrology Pharmacology and Biotechnology.

A Brain-Storming Session on the different aspects of the unit was held on 26/12/2013 where the outline, frame work and activities for near future work discussed by teachers and researchers of Era's and other Medical Colleges.

MEETING ON NANO - TECHNOLOGY

A one day Brain-Storming session on applied Nano-Technology in diagnosis, treatment & Medical Research is planned for 1st week of March 2014. Those desirous of participating or giving ideas are requested to give suggestions to Col. R. K. Tripathi, HOD Anesthesiology, ELMCH&H, Lucknow.

REQUEST

Please send information about your achievements in the field of research, any Awards won, Recognition gained and Honours bestowed upon you for possible inclusion in Era Research Newsletter.

Personalised Medicine Clinic from Dubai opens at Era's Medical College, Lucknow

Brings hope to parents of children suffering from autism, ADHD and slow learning

XY Clinics, a personalised medicine and molecular nutrition clinic has entered with the opening of a franchise clinic at Era's Medical College, Lucknow, promising breakthrough treatments in several areas including children's developmental problems and women's hormone disorders.

In a seminar on overcoming Developmental Delays, Sam Rao, CEO XY Clinics, Dubai detailed the treatment protocols. "Autism Spectrum Disorders are treatable and parents should not be misled into believing that there is no cure. Early detection is key. Uncontrolled hyperactivity, attention, focus problems, working memory issues and speech delays can be overcome if the correct laboratory evaluations are done and treatment starts early. The team consists of neurologists, molecular biologists and pediatric nutritional specialists."

Editorial Board

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Nobel Laureate Prof. Zur Hausen in ELMC&H