CTRF, AIIMS NEWSLETTER

excellence through learning

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About CTRF

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The All India Institute of Medical Sciences, New Delhi, India has established a state of art Research & training facility, as a part of its efforts towards the education of students as well as qualified Professionals. The Cadaveric Research and Training facility (CTRF), one of its own kind, has been developed with the intention to provide opportunity to learn in a 'near life' situation. The facility has been made possible through a generous grant from Indian council of Medical research (ICMR) and Department of Health Research (DHR), New Delhi.

CTRF is committed to provide facilities and resources for conducting courses for medical graduates and professionals across the country and abroad. The lab is located at the basement area of JPNA Trauma center and has an approximate area of 25 x 40 ft. The CTRF has a capacity for 6 cadaver work stations. The facility provides specially prepared cadavers suitable for any form of surgical training. This enables us to conduct courses all the year round, in Basic & advanced surgical procedures, orthopaedic (Shoulder, Pelvis and acetabulam and Arthroscopy) Procedures, Neurosurgical & spine procedures, surgical exposures, ENT, Gynecology, Interventional GI endoscopic, Digestive and Colorectal, Emergency Medicine, Anaesthesiology and keyhole surgery like Arthroscopy, laproscopy, Cystoscopy, Neuroendoscopy etc.

The cadaver laboratory also allows biomedical research to develop and validate new products / techniques / implants & new surgical procedures.

CTRF has cadavers with organoleptic properties, which mimic almost real life situations. The commonly used formalin embalmed cadavers are rigid & are of little use for surgical training. Hence, AIIMS forensic specialists have devised a novel method of whole body preservation, due to which the cadaver remains soft for longer periods and the body tissues feel a lot like almost normal living patient. All cadavers are rigorously tested for infection by our competent microbiologists before being transported into the CTRF. These tests screen all donors for infectious diseases such as HIV, Hepatitis B and C etc.

Editor: Dr. Sumit Sinha, Additional Professor, Neurosurgery, AIIMS

President Message

Prof. MC Misra,
Director, AIIMS

The AIIMS Cadaver training and research facility has been established with the objective of grooming and nurturing the dissection skills of young surgeons across the country and abroad. The cadavers are an exact specimen of the human body and offer an excellent medium for young surgeons to practice their dissection skills. This form of training has been recognized as the best of among all the trainings like animal dissections, video simulations, mannequins etc. The learning is a life-long and continuous process and does never finish in the life of a medical professional, for whom it is very important to keep oneself updated at all the times and abreast of every new technical advancement happening in the field of medical science. The CTRF provides for a full range of motor skills development in all the surgical specialties like Neurosurgery, Orthopedics, General surgery, gastrointestinal surgery, peripheral nerve surgery and areas of Emergency Medical care and Critical care medicine training for all other specialties. It is here that we envision to provide Hands-On education to physicians and surgeons on a one to one basis. The CTRF is the first of its own kind in the country to provide such a training, which is at par with some of the most advanced training facilities across the world. We expect that medical professionals from across the country and throughout the whole world will utilize this opportunity to avail excellent courses offered by CTRF AIIMS and benefit themselves by enhancing their realm of knowledge and skills.

Faculty In-Charge Message

Dr. Sumit Sinha,
Additional Professor
Neurosurgery, AIIMS

The knowledge of human anatomy is absolutely essential in the medical curriculum. We as medical professionals have always known about the usefulness of the anatomy dissections at the cadaver labs, during the initial parts of our medical careers. The study of the Cadaver anatomy is an essential part of medical education and is an important stepping stone not only during the transition from students to physicians, but also during the later part of our careers. Even after medical school, physicians must turn to a cadaver for learning and mastering the surgical techniques and invasive procedures, before finally attempting these on a live patient. Although phenomenal advances in computer imaging and modeling technology allow surgical research facilities to explore new approaches, ethics demand the use of surgical anatomy specimen to validate procedures before they can be attempted on living patients.

The AIIMS CTRF is one such facility developed with the objective to let surgeons develop highly refined surgical dissection skills without posing any risk to a patient. In this endeavor, the CTRF

intends to deliver several courses across all the medical and surgical specialties, all the year round, to physicians and surgeons across the country and abroad.

The AIIMS Cadaver Training and Research lab is one of its kinds in the country and is at par with other such facilities in the world.

Coordinator Message

Dr. Sanjeev Lalwani,
Additional Professor
Forensic Medicine, AIIMS

Cadaver based skills learning courses have been now recognized as the best way to impart training to medical students and trained medical professionals.

The CTRF has been established with the aim to impart basic and advanced training of surgical or other interventional skills related to patient care required by the medical professionals as life saving measures or otherwise.

CTRF is aimed to be established with the high end equipment and latest technology available for such training across the world. Courses will be organized at regular intervals for the training of medical professionals of various disciplines.

The cadavers received at CTRF shall be preserved using the indigenous Theils Technology, the knowledge about which was inculcated during my academic visit at Department of Anatomy University of Dundee, Scotland UK as a part of training as Commonwealth Academic Fellow. I must acknowledge Dr Eisma Roos for her work in this area. She was kind enough to give me insight in this aspect.

We also acknowlede the contribution of the departed souls who have donated their whole body to the medical institution for the advancement of medical education.

We aim to move forward with research projects and international collaborations, keeping the high standards of training of medical professionals at minimal cost.

Advisor Message

Prof. TS Roy
HOD, Anatomy,
AIIMS

Cadaveric dissection is excellent method for learning anatomy. The surgeons mostly refine their anatomy knowledge by conducting operations in patients. Learning anatomy is a never-ending subject and the surgeons need finer detail of anatomy because of narrow access to the operative area, difficult mauves and the consequences of a mistake. The surgeon must know what is there in each corner of the body cavity. This is especially true for neurosurgery where the surgical access routes are narrow, the brain, spinal cord with surrounding structures cannot be moved, and the consequences of a minor error in surgery is devastating. The cadaveric laboratory in AIIMS

is doing a good and great job. It will help all surgeons conducting endoscopic and other surgeries.

Inauguration

CADAVER Training & Research Facilities (CTRF) was established on 4th September, 2014 (Thursday) and inaugurated by *Prof. V. M. Katoch*, Secretary-DHR and Director-General, Indian Council of Medical Research (ICMR) in the presence of *Prof. M. C. Misra*, Director, All India Institute of Medical Sciences (AIIMS), New Delhi. It is situated at Basement, Jai Prakash Narain Apex Taruma Centre, AIIMS, Raj Nagar, New Delhi-110029.





Course Conducted

Till date CTRF has organized successfully three courses from the date of inauguration and trained 147 participants from different specialies:

S. No.	Date	Course Name	Total Participants	Specialty	Course Chairman	Duration
1	**Inaugural Course:**					
	04.09.2014	• Neurosurgery	30	Neurosurgery	Prof. B.S. Sharma Dr. Sumit Sinha	1 day
	05.09.2014	• Orthopedics	10	Orthopaedics	Dr. Vivek Trikha Dr. Kamran Farooque	1 day
	06.09.2014	• Surgery	8	Surgery	Dr. Amit Gupta Dr. Subodh Kumar	1 day
	07.09.2014	• Emergency Medicine	10	Emergency Medicine	Dr. Sanjeev K Bhoi	½ day
	07.09.2014	• Anesthesiology	5	Anaesthesia & Critical Care	Dr. Chhavi Sawhney	½ day
2	06.10.2014	Workshop of Valve Surgery	60	CTVS	Dr. S.K. Chaudhary	1 day
3	30.10.2014	ANTC	24	Neurosurgery	Dr. Deepak Gupta	1 day
Total			**147**			

Course plan

The training courses on cadaver in the cadaveric skills lab have been initially planned in the Neurosurgery, Surgery, Orthopaedics, Emergency Medicine and Anesthisiology specialities. The course will be conducted at every three months interval. The duration of courses for neurosurgery, surgery and orthopaedics will be two days each and for Emergency Medicine and Anesthisiology specialities one day each.

Future Plan

CTRF includes a laboratory (25 X 40 feet), which is SIX bays housing a total of 6 tables (Each bay-8X10 feet). It is proposed to develop each table technically advanced and well-equipped. Each table will be equipped with suction machine, Pneumatic drills, Image Intensifiers, Cadaver tables, Operating Microscope, Craniotomy instruments, Spinal Instruments, Orthopaedic Instruments, Surgical instruments, Laparoscopic equipment, Endoscopic equipment and one state of the art.

Research

In CTRF, different research projects have been planned in the field of Neurosurgery, orthopaedics and surgery. A project has already been completed, accepted for publication in JNS entitled "*A cadaveric micro anatomic study of intra-fascicular topography of brachial plexus*". We also aim to advances in toxicology and DNA analysis. Through imaging techniques, such as multi-sliced computed tomography and MRI we will establish the virtual autopsy as a method of analysis to facilitate autopsy procedure.

Messages

Dr. SK Bhoi
Additional Prof.
Emergency Medicine

Care of patients demands core-competencies in knowledge and skill. Over the years, we have not focused on developing critical skills in saving lives across the country. Creating cadaveric laboratory for Training, Education and Research for health care professional is a step in the right direction which will empower acute care skills. It will be also be helpful in creating innovative teaching models and realism in true sense.

Dr. Purva Mathur
Additional Prof
Lab Medicine

This is an innovative beginning at the trauma center, AIIMS. I hope this facility will provide world-class training to all aspiring surgeons and clinicians. The cadaver laboratory will enable training of a level for which candidate has to hither to go abroad till now. Therefore this effort deserves a special applause.
All the Best

Dr. Nasim Mansoori,
Research Officer

The CTRF was established with the aim to impart training to surgeon across the country and abroad. CTRF matches the high end equipment and latest technology available in such facilities across the world. We aim to impart training for laparoscopic surgical procedure, advances in toxicology exams and DNA analysis and possibilities for virtual anatomy using CT/ MRI.

CTRF Staff

Cadaver Training and Research Facility consists of Staff- Research Officer (Dr. Mohd Nasim mansoori), Laboratory Technician (Mr. Ajay P S Rawat, Mr. Vishal), Data Entry Operator (Mr. Raju Kumar), Laboratory Attendant (Mr. Bhoopendra).