



(ADVANCED SURGICAL TRAINING AND RESEARCH ACADEMY)



SRI BALAJI VIDYAPEETH UNIVERSITY

### **CADAVER LABORATORY:**

A cadaver laboratory is a laboratory that uses frozen cadavers for hands-on training, education, and development of new surgical techniques. Cadaver laboratories provide a real life like experience where medical professionals and students, alike, can advance their understanding of human anatomy and physiology in addition to enhancing their practical skills, by exploring and working on human specimens.

At the ASTRA a variety of questions and doubts from various professionals can be clarified through research and immediate hands-on fresh frozen specimen in our state-of-the-art cadaver lab. These results then become answers and become shared knowledge with hundreds of other professionals.

### **EDUCATION IN THE HUMAN CADAVER LAB:**

Lecture classes can only get you so far when it comes to learning new surgical techniques or how to use certain medical devices. ASTRA is dedicated to providing students with the real hands-on experience they need to apply what they're learning in our courses.

For researchers Cadaver Lab provides the opportunity to quickly raise, and answer all the questions that come up during the course of conducting medical research by using real models. The end result is transforming doubts into certainties and applying this newly acquired knowledge in daily professional settings. Here at the ASTRA centre we utilize ONLY freshly-frozen cadavers. The use of these specimens is to mimic lifelike scenarios--one that can only truly be captured through hands-on practice.

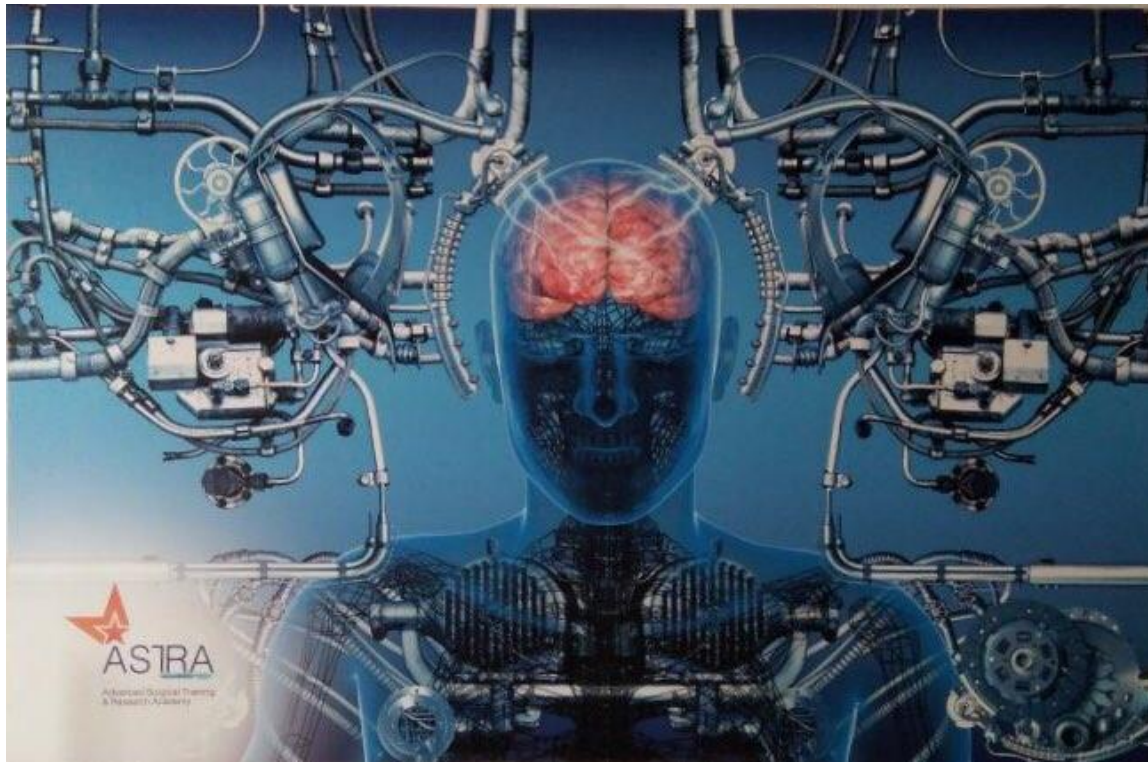
### **HUMAN CADAVER ADVANTAGES**

Human cadaver training allows healthcare professionals to study many data points, such as, observing body, muscles, bones and organs in a life size model. This gives the healthcare professional a more precise idea of the size and location than can be acquired using a textbook, models or a computer. Doctors, Fellows and Students get access to practice dissecting human body and train for real surgical center scenarios.

While a textbook can easily describe what an average condition is, no two people are alike. With a real human cadaver training you will be able to see the different anatomies people have and discover that while all humans do have the same basic anatomy, there are wide variations in how that anatomy research appears.

For a Surgeon, cadaver training can help improve their surgical technique. Surgeons can enhance the effectiveness of the device/implant they use and provide them with a sense of comfort and confidence that will transform into their operating room. This also will allow the

patient to have an improved post op recovery period and can also in fact decrease the risk of complications post-surgery.



## **Cadaver lab benefits students in a variety of ways.**

### **1. Hands-on Experience That Solidifies Learning**

Discussions of the muscular system along with all relevant nomenclature are one thing, but that's a bit like knowing a date in history without understanding the political and societal movements that shaped that world event. Actually getting the chance to see the musculature of real cadavers in the lab creates an active learning environment that allows students to have a hands-on experience that brings learning full circle.

### **2. A Better Understanding of How All Bodies Are Different**

While a textbook can describe an "average" condition, no two people are alike. One of the most surprising things for students in the cadaver lab is seeing these differences and discovering that while all humans do have the same basic anatomy, there are wide variations in how that anatomy appears. Factors such as gender and health status are just the tip of the iceberg for what make each and every one of us a unique individual.

### **3. Seeing the Effects of Disease Firsthand**

Learning about normal anatomy is critical, but being able to point out pathology in the human body is also a real advantage to individuals in the healthcare field. Cadaver dissection allows students to find the pathologic processes that have happened on a large scale, things like tumor formations, enlarged organs or past surgical procedures. It can be truly eye-opening for students to see the effects of diseases within the human body beyond what a textbook is capable of showing.

#### **4. An Appreciation for the Donor**

Often, one of the most compelling experiences for students is how much they come to respect the gift that has been given to them by the donor. Over time, they realize what a valuable learning experience this is and appreciate that it was made possible because someone chose to donate their body for the good of society. Without these special people, it would be nearly impossible for tomorrow's healthcare leaders to get the education they need.

#### **5. A Unique Advantage for Postgraduates:**

Having the lab at the postgraduate level is a rare benefit – one that most institutions don't have on their campuses and that our students really value.

### **PROPOSED WORKSHOPS**

#### **Orthopaedics**

- Basic surgical exposures –upper limb and Lower limb-post graduate training
- Illiarov workshop
- Hip Arthroplasty
- Shoulder Arthroscopy
- Advanced Pelvi-acetabular fracture fixation course
- Spine instrumentation workshop
- Knee Arthroscopy Basic
- Tendon Repair workshop
- Knee Arthroplasty
- Wrist arthroscopy
- Post Graduate Foundation Skills in Orthopaedic Surgery
- HIP Preservation: Basic Course
- Knee Arthroscopy Basic and ACL Cadaver Hands on Workshop
- Cadaveric Primary Knee Arthroplasty Course
- Spine course : Discectomy & Pedicle screw instrumentation

#### **General surgery**

- Surgical Skill Development
- Wound care & suturing techniques
- Laparoscopy
- Laparoscopy trainer
- Laparoscopy simulator with Symbolic simulator
- Laparoscopy cholecystectomy
- Laparoscopy Appendectomy
- Laparoscopy hernia repair

### **Ophthalmology**

Skill Transfer Workshops Strabismus, Lachrymal Sac Surgeries and Anterior Segment Trauma.

### **ENT**

- Advanced Skull Base Endoscopy Workshop
- Hands on Cadaveric Endoscopic Sinus Surgery Workshop
- Techniques Cadaveric Training Program Hands on Cadaveric Dissection Program on Temporal Bone
- Foraminoscopy Workshop

### **Anaesthesiology**

- Pain and regional anesthesia workshop
- Airway management

### **Obstetrics & Gynaecology**

- The Pelvic Anatomy and Laparoscopy Course
- Hands-on surgical operations.