

# Need for Good Yoga Practice

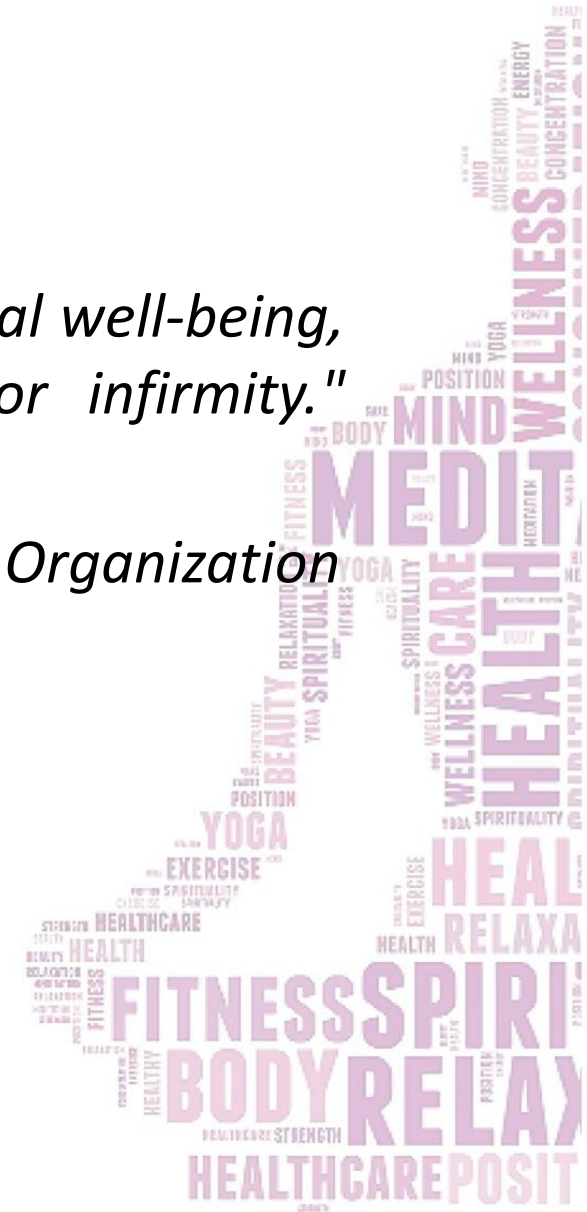


**AKSHAY ANAND**  
NEUROSCIENCE RESEARCH LABORATORY  
DEPARTMENT OF NEUROLOGY  
PGIMER, CHANDIGARH

# WELLNESS

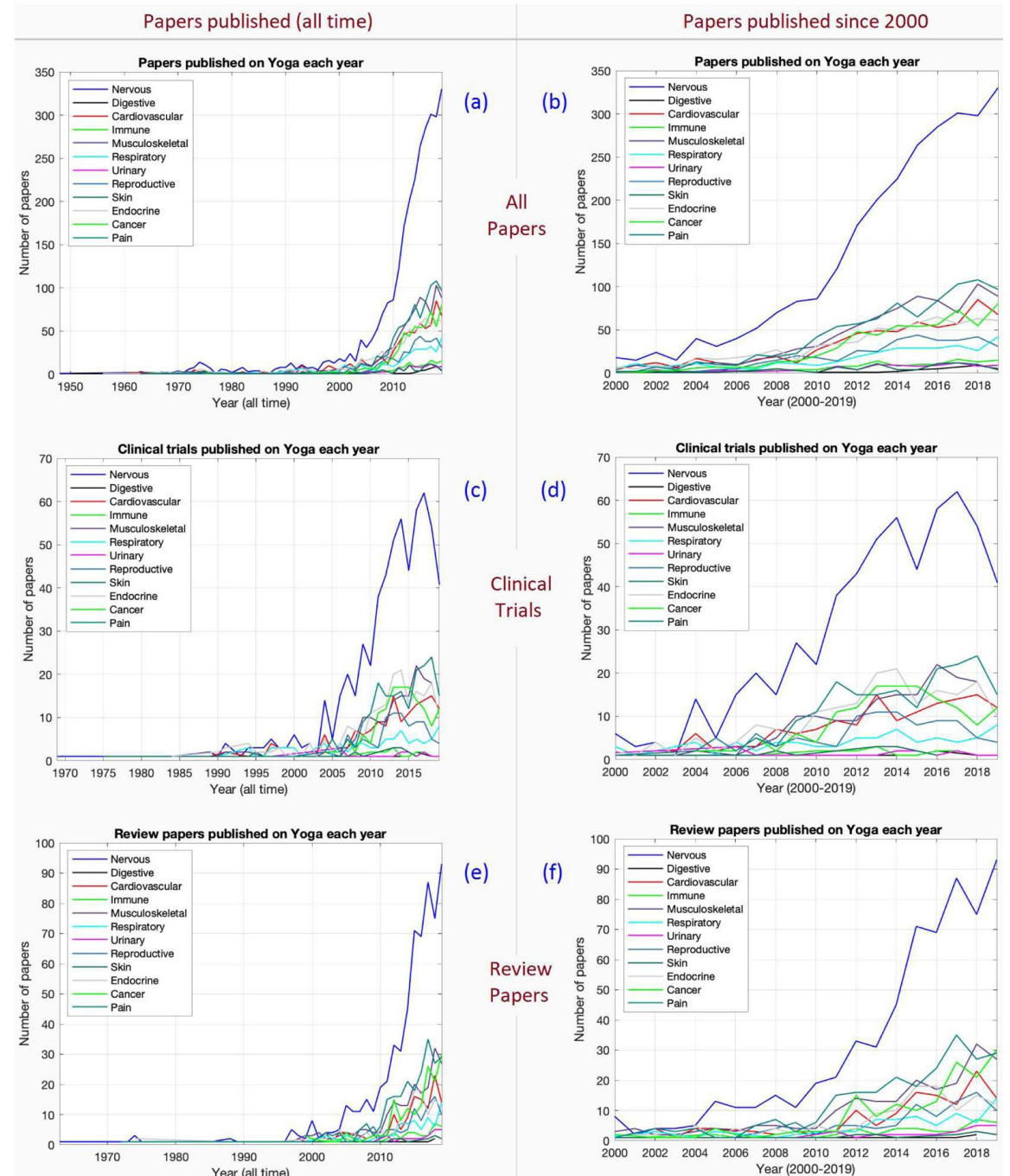
*"...a state of complete physical, mental, and social well-being,  
and not merely the absence of disease or infirmity."*

*- The World Health Organization*



- Geographical distribution shows that 37% of all Yoga related research output originates in the USA, 19% from India, 13% from Europe and 31% from the rest of the world.

- Rigor and reproducibility must be enhanced in addition to performing more RCT and clinical trials (increasing % of trials to 20–25% from 10–15%)

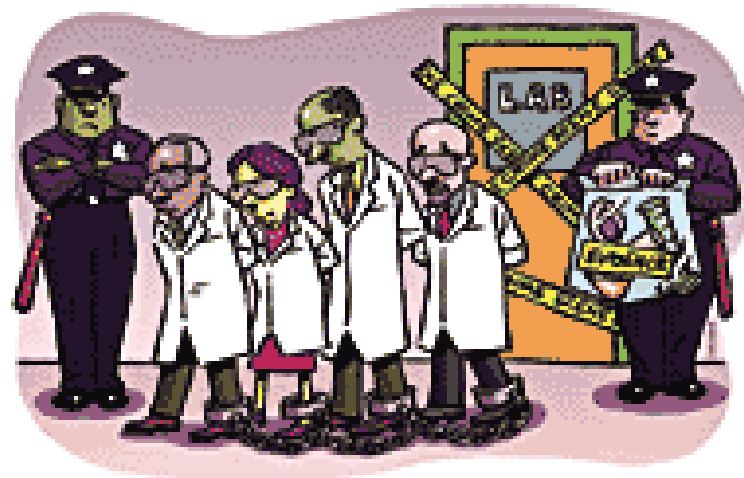


# Why Were the GLPs Mandated?-Way towards GYP

In the 1970s, numerous cases of laboratory malpractice surfaced in toxicity testing of food and drugs in the U.S.

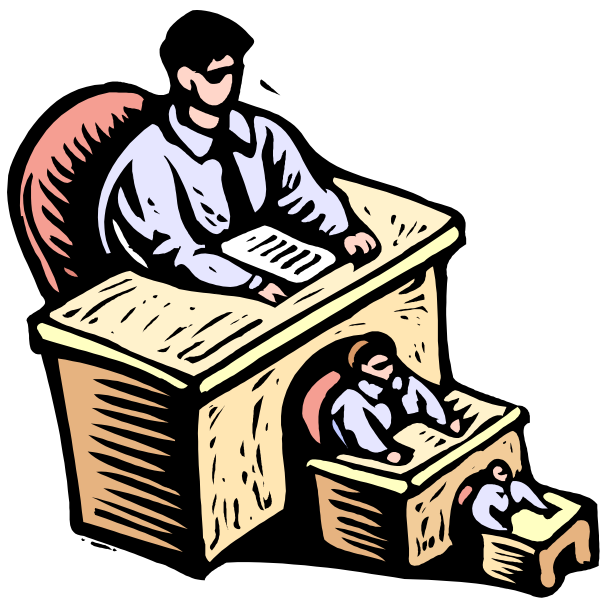
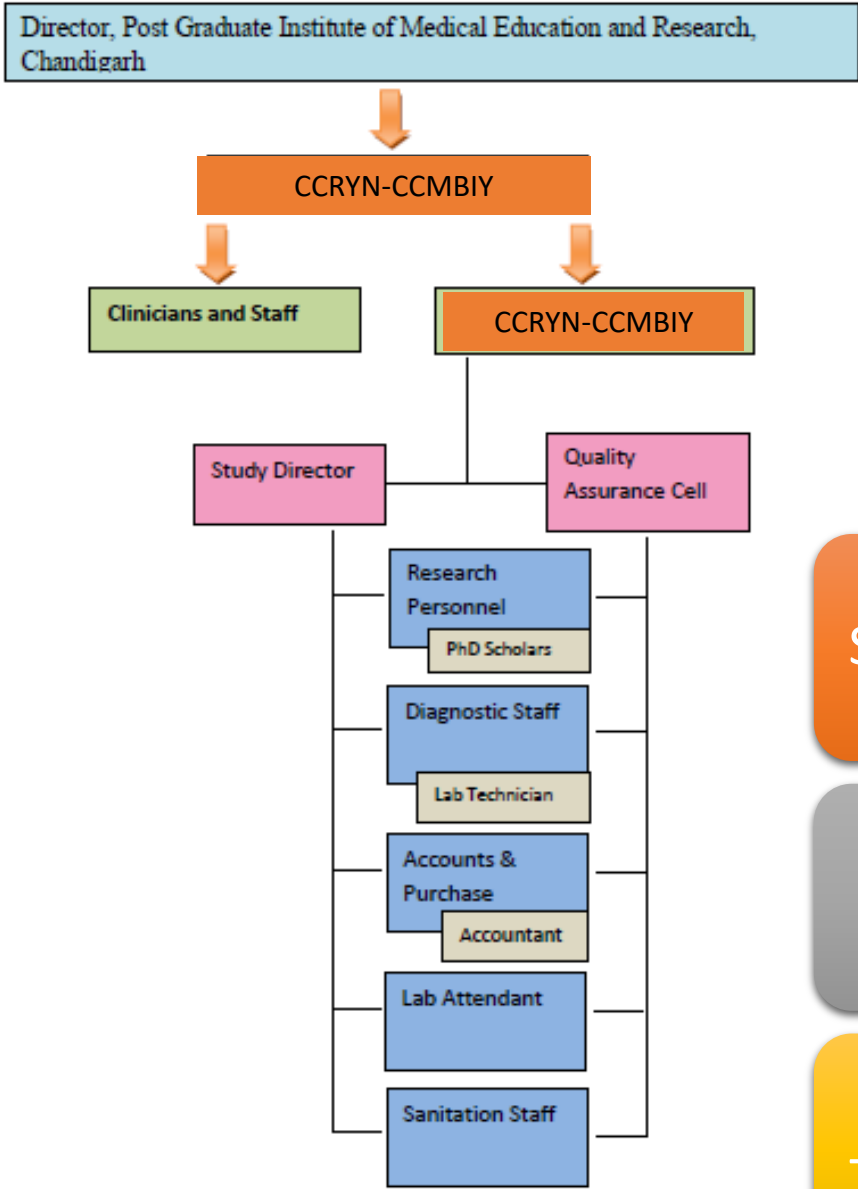
FDA inspectors found inaccurate, sloppy, and fraudulent research studies

Became a public safety issue



New need to prevent this from happening to Yoga, especially due to its interdisciplinary, demand for yoga protocols and trainer's accreditation.

# Organogram



**Study Director**

- Policy Making
- Professional Decision Making
- Scientific and Advisory
- Validation of test results

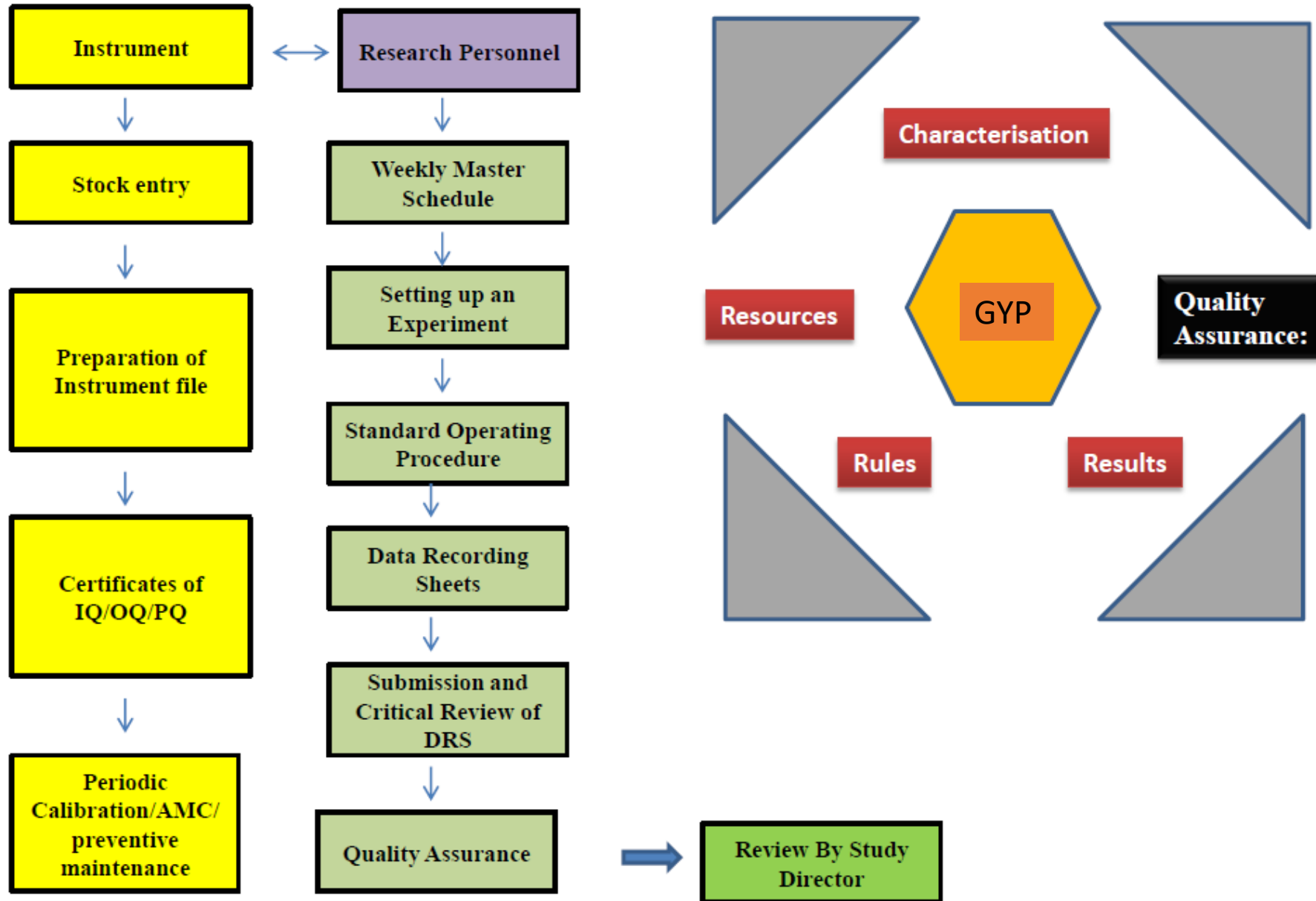
**QA**

- Document Control
- Inspection : Study, Facility, Infrastructure based
- Archiving

**Research and Technical Staff**

- Performing Experiments
- Analysis and Interpretation

# Execution of GYP in Basic Research



# SOP

**STANDARD OPERATING PROCEDURE**

Title : *Vajrasana* (Thunderbolt/Diamond Pose)

SOP No.	Edition No.	Effective Date	Review Date	Document Controller (signature/stamp)
Copy No.1	Date of Issue	Location (Unit/Division)		

**1. Introduction:** *Vajrasana* is a combination of two Sanskrit words, *Vajra* and *Asana*. *Vajra* is a weapon which means Thunderbolt or Diamond or Adamant Pose and *Asana* means a posture which is steady and comfortable. *Vajrasana* is one of the Meditative Postures. It is mentioned in *Gherand Samhita*<sup>1</sup> (2.12) & *Hath Yog Pradipika*<sup>2</sup> (1.39) which are two of the three classic text of *yogasanas*. According to *Gherand Samhita*, Place the heels on either side of the anal region and make the thighs tight like adamant like the *Vajra*. This *Asana* is known as *Vajrasana*, which provides Siddhi to the *Yogi*

In *Hath Yog Pradipika*, *Siddhasana* is described in verse 37-39 as *Vajrasana*.

*Etasiddhasanam prāhuranye vajrasanam viduh*


*Muktāsānam vadāntyēke prāhurghuṭāsānam pare (1.39)*

Meaning- Some call this *Siddhāsana*, some *Vajrasana*. Others call it *mukta Āsana* or *Gupta Āsana*.

# DRS

**Restricted Circulation** **Photocopying Prohibited**

**DATA RECORDING SHEET** Title: **Heart Rate Variability (HRV) by Biopac Students Lab MP45**

DRS No. Student Code: SOP No. Copy No.1A Experiment No. Document Controller (Signature/Stamp) 

Experiment Conducted By: Supervised By: Date of Issue: Date of Experiment:

**Experimental Details:**

Sr. No.	Experimental Procedure	Remarks
1	Attach HRV Machine in Laptop	
2	Paste 6 electrodes on patients (2 on wrist, 2 on forehead, 1 on right side of temples and 1 inside the left ankle)	
3	Attach channel 1 for ECG (white on right side of the wrist, red on left side of the wrist and black in the left ankle)	
4	Attach channel 2 for EEG (white on right side of forehead, red on the left side of the forehead, black on the temples)	
5	Go into the templates and start recording and ensure that recording is going on properly.	
6	After 6 min recording will automatically be stopped then save the recording by name and code	

**Subject detail:**

S. No	Name	Time-point (pre, post, etc)	Remarks
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			

PGIMER Neuroscience Research Lab

# Master Coding

**GRAND CODING**

**SPECIES**

- HUMAN
- MICE
- RAT
- MONKEY

**DISEASE/SAMPLE TYPE (HUMAN)**

- PARKINSON'S DISEASE
- ALZHEIMER DISEASE
- STROKE
- ATAXIA
- MUSCULAR DYSTROPHY
- TUBERCULOUS MENINGITIS
- NEURAC VITREORRHAGY
- SPINAL DEGENERATION
- FAMILIAL HEMIPLEGIA
- SPINALES
- LEUCODYSTROPHY
- DEPA RESPONSIVE DYSTONIA
- PROFROTEMPORAL DEMENTIA
- PICK'S DISEASE
- CURTIC-BASAL
- DEGENERATION
- PROGRESSIVE SUPRANUCLEAR PALSY
- NEUROFIBROMATOSIS TYPE 1
- SPINALES
- MENTAL RETARDATION I
- WILSON DISEASE
- UNLINKED MENTAL RETARDATION AND MICRO CHARGE/T-MARIE-TUOH
- FRAGILE X SYNDROME AND MENTAL RETARDATION
- CHARCOT-MARIE-TOOTH DISEASE
- EPHRELLA
- PHENYLKETONURIA
- ACHYLIDY
- MITOCHONDRIAL MICRO DELETION
- SYNDROME
- ANTERIOR CRUCIATE LIGAMENT

**DISEASE MODEL (ANIMAL)**

- Global
- ADNA
- RET-PCR
- NMDA
- ADNA
- ADNA
- Memory-AD
- PPA
- Optic Nerve Crush

**CATEGORIES IN ANIMAL/HUMAN SAMPLE**

**HUMAN SAMPLE:** a- Test, b- Normal Control, c- Neurological Control

**ANIMAL SAMPLE:** Control, b- Disease, c- Disease+Vaccine, d- Disease+Treatment, e- Stress Control, f- Post op

**FORM OF DISEASE**

For example,

Zavardo	a
Young	b
Adult onset	c
Late onset	d
Spontaneous	e
Paternal	f

**PATIENT SAMPLE NUMBER**

001-----999

**FOLLOW UP SAMPLE NUMBER**

F1-----F999

**TYPE OF SAMPLE**

01	PLASMA
02	SERUM
03	LYMPHOCYTES
04	DNA

**ALLOQUOTES**

a,b,c,d -----

**Substrates**

01	Tajinder
02	Pawan
03	Deepak
04	Chandrika
05	Arjun
06	Rashmi
07	Sonali
08	NEEL KAMAL
09	Meharika
10	Sidhar
11	Smita Rana
12	Naman
13	Chaitanya
14	Rohini
15	Kabir
16	Kaushal
17	Kishika
18	Shweta

**EXAMPLE**

101\_001a/d/08

1 01 a - 001 04 d / 08

HUMAN PARKINSON DIS. SPORADIC TEST DNA ALIQUOTE d NEEL KAMAL

SAMPLE NO.


# Archiving

**PGIMER** Neuroscience Research Lab

## Blinding in GLP format

Blinding Experiment Chart (Blind Numbering of samples)

Student/Project name: Avijit Banik Supervised by: Akshay Anand  
Effective from: 01.02.13 Month: April 2013


NRL: PGIMER 

S.No	Person who has done Blind coding	Sample Code	Sample's blinding code	Remarks
1	Kaushal Sharma	PBS-PBS-10 Days (C4)	3	Mouse brain for ELISA
2	Kaushal Sharma	PBS-PBS-10 Days (C14)	2	Mouse brain for ELISA
3	Kaushal Sharma	PBS-PBS-60 Days (C7)	5	Mouse brain for ELISA
4	Kaushal Sharma	PBS-PBS-60 Days (C9)	10	Mouse brain for ELISA
5	Kaushal Sharma	PBS-50,000-10 Days (SC6)	12	Mouse brain for ELISA
6	Kaushal Sharma	PBS-50,000-10 Days (SC7)	11	Mouse brain for ELISA
7	Kaushal Sharma	PBS-50,000-60 Days (SC3)	8	Mouse brain for ELISA
8	Kaushal Sharma	PBS-50,000-60 Days (SC5)	7	Mouse brain for ELISA
9	Kaushal Sharma	PBS-100,000-10 Days (SC2)	19	Mouse brain for ELISA
10	Kaushal Sharma	PBS-100,000-10 Days (SC4)	1	Mouse brain for ELISA
11	Kaushal Sharma	PBS-100,000-60 Days (SC3)	4	Mouse brain for ELISA
12	Kaushal Sharma	PBS-100,000-60 Days (SC4)	6	Mouse brain for ELISA
13	Kaushal Sharma	AP-PBS-10 Days (T4)	9	Mouse brain for ELISA
14	Kaushal Sharma	AP-PBS-10 Days (T10)	24	Mouse brain for ELISA
15	Kaushal Sharma	AP-PBS-60 Days (T1)	21	Mouse brain for ELISA
16	Kaushal Sharma	AP-PBS-60 Days (T5)	20	Mouse brain for ELISA
17	Kaushal Sharma	AP -50,000-10 Days (ST4)	22	Mouse brain for ELISA
18	Kaushal Sharma	AP -50,000-10 Days (ST9)	23	Mouse brain for ELISA
19	Kaushal Sharma	AP -50,000-60 Days (ST4)	18	Mouse brain for ELISA
20	Kaushal Sharma	AP -50,000-60 Days (ST12)	17	Mouse brain for ELISA
21	Kaushal Sharma	AP -100,000-10 Days (ST2)	16	Mouse brain for ELISA
22	Kaushal Sharma	AP -100,000-10 Days (ST6)	15	Mouse brain for ELISA
23	Kaushal Sharma	AP -100,000-60 Days (ST2)	14	Mouse brain for ELISA
24	Kaushal Sharma	AP -100,000-60 Days (ST4)	13	Mouse brain for ELISA

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**ARCHIVE**

Location: Room No-2 (Cabinet 2D1) Month: October 2012  
Maintained By: Sumit Kumar Rana Updated on : 10-10-2012


 NRL: PGIMER CHANDIGARH

S.no	Items
1	Literature-Miscellaneous, Chandrika Abburi
2	Literature-Research Articles-VEGF, Chandrika Abburi
3	CE-Reviews, Chandrika Abburi
4	CE-Research Articles, Chandrika Abburi
5	Quotations (Cobra File), Chandrika Abburi
6	Miscellaneous Folder, Chandrika Abburi, 2 nos.
7	Log Book, Chandrika Abburi, 2 nos.
8	SOP Folder, Chandrika Abburi
9	Literature Reviews-CE, Chandrika Abburi
10	DRS, Chandrika Abburi
11	CE-Research Articles, Chandrika Abburi
12	Proformas, Chandrika Abburi
13	Raw Books, Chandrika Abburi, 5 nos.
14	SAF 2.3*h ALS patient folder-I, Pawan Gupta
15	SAF 2.3*h ALS patient folder-III, Pawan Gupta
16	SAF 2.3*e Normal, Neurological and controls from Anaesthesia-II, Pawan Gupta
17	ALS patient folder-II, Pawan Gupta
18	Normal Neurological and Controls, Pawan Gupta
19	Epidemiology-Literature, Pawan Gupta
20	Reviews I (ALS,VEGF, Ccl2 and Apoptosis), Pawan Gupta
21	Reviews II, Pawan Gupta
22	Miscellaneous Literature, Pawan Gupta
23	CSIR and PGIMER admin. Documents and credentials
24	IC literature, Pawan Gupta
25	Literature I, Pawan Gupta
26	Literature II, Pawan Gupta
27	SOP, Pawan Gupta
28	Lab meeting Diary, Pawan Gupta

Author/Review	Name	Signature	Date
Review By Study Director	Mr. Sumit Rana		
Management Approval	Dr. Akshay Anand		
	Dr. S. Prabhakar		

## Monthly QA review and document control

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NEUROSCIENCE RESEARCH LAB  
DEPARTMENT OF NEUROLOGY  
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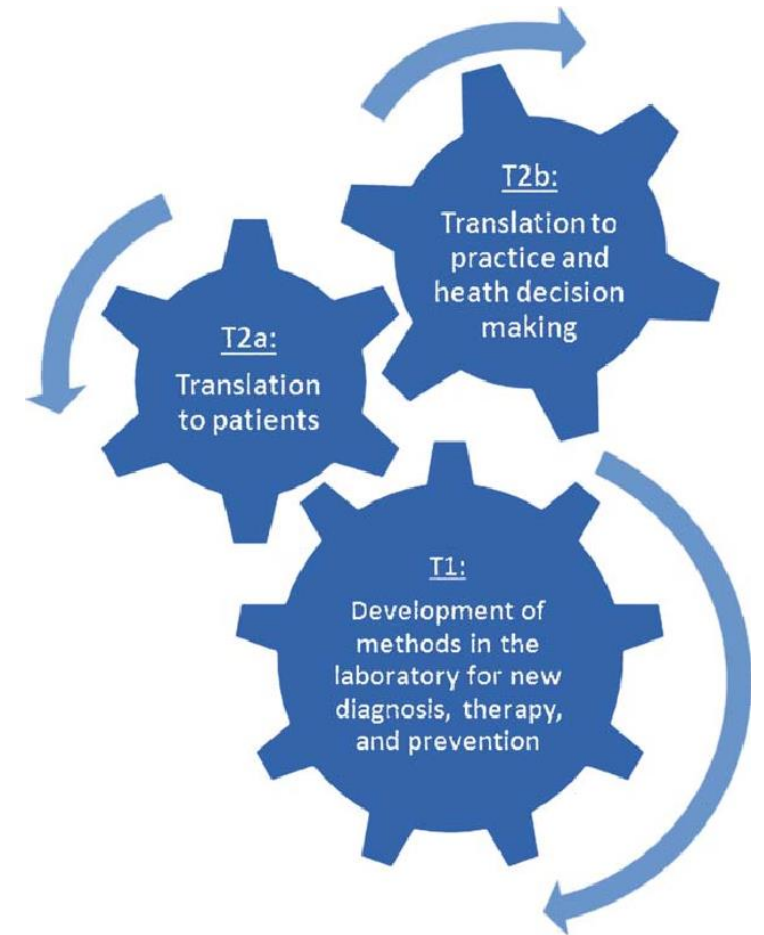
QA Sheets of Sridhar-B for month October-2013 prepared by... Sumit kumar

	Remarks
1. All folders – 2. Log registers – updated 3. SOP folders – updated 4. Literature – updated	
Inventory – Not send for the month of Nov-2013	Inventory – Not send for the month of Nov-2013
Experimental work – Master schedule not followed properly Not done – CE culture establishment and processing, UCB sample processing, FACS, CE culture, Laser shots, sub retinal transplantation, laser shots/FFA.	Master schedule not followed properly pending work:- Master schedule not followed properly Not done – CE culture establishment and processing, UCB sample processing, FACS, CE culture, Laser shots, sub retinal transplantation, laser shots/FFA.
DRS record – No	
Instruments – Laminar Hood 1 & 2, CO2 incubator -1&2 (Nuair Co2 in process), Laser photo coagulator, Cell counter, Nikon Light microscope, Nikon Inverted Microscope.	
Attendance – 7-Leaves; 6-Departure dots.	
Seminar attended – 1/3	
JC attended – 1/2	
Lab meeting attended – 2/2	
Weekend duty – weekend duty done in Oct. month	
Discussions – 0 Discussion	
Monthly Master schedule – Not send for the month of Nov-2013	Monthly Master schedule – Not send for the month of Nov-2013

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- Consort diagram
- Avoiding plagiarism
- Authorship consents





## Development and implementation of ZED-YOG quality module: *Niyantrita Madhumeha Bharata* skill development initiatives

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### KEY WORDS

YOG  
ZED  
Good Lab Practices  
Quality

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### ABSTRACT

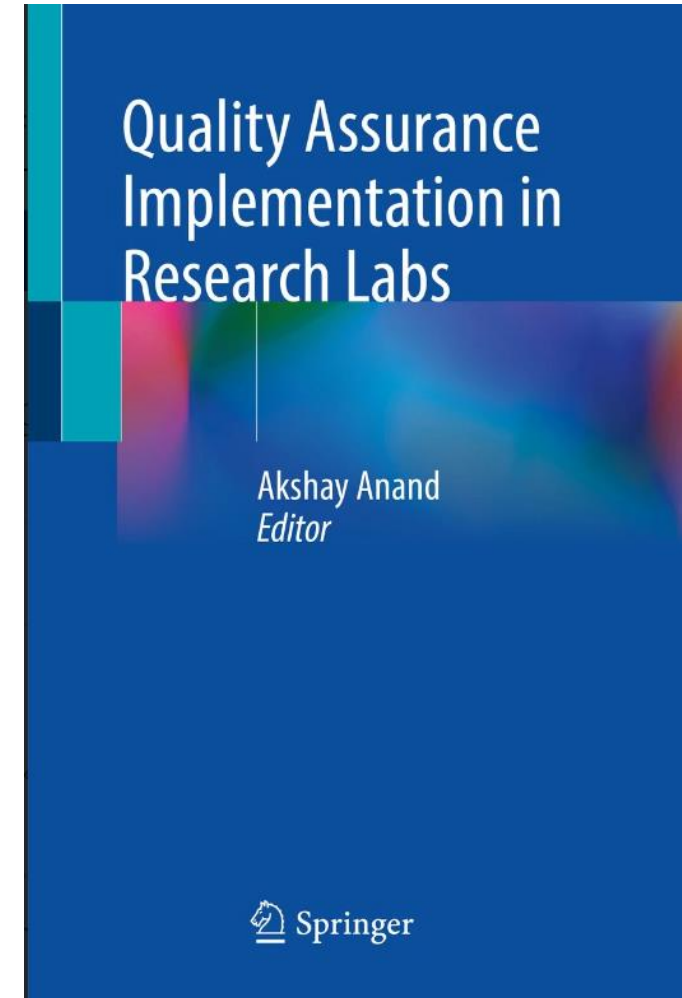
**Background:** Government initiatives and schemes for global healthcare improvement require efficient implementation which can transform the quality standards. We redefined the purview of Good Laboratory Practices (GLP) in the basic research investigations in order to create a benchmark of quality standards for conducting translational research.

**Methods:** We propose *Zero effect-Zero defect Youth Oriented GLP (ZED-YOG)* as a management tool for funding agencies to monitor data generated in labs funded by them.

**Summary:** This strategy can not only promote enhanced data scrutiny, validation but also health awareness.

**Key message:** YOG will ensure the communication of audited research data generated from publically funded national agencies

doi : 10.5214/ans.0972.7531.260108



# Actions proposed to be taken

- Formation of Inter Medical Institute of Yogic Sciences(IMIYS)
- PGI, Funding agencies or CCRYN to release funds to those that follow GYP Periodic audit of research data by IMIYS

# Acknowledgments