



Velammal Medical College Hospital and Research Institute, Madurai

MD Physiology Post Graduate

2023 - 2024 Academic Activities

Post Graduate	Course Year
Dr. M. A. Hariviknesh	1 st year

As per recent NMC guidelines (CBME 23-24), PG program is conducted at our department. All the competencies and requirements as per the curriculum framed by the NMC are fulfilled at the department level for the PG program.

PG Activities Planned			
Academics	Classes to be taken	Research	Lab Activities
Case discussion	MBBS theory and practical classes	Thesis study	Hematology Lab
Pedagogy	AHS 1 st and 2 nd year theory and practical classes	Research projects	Clinical Lab
Inter-Departmental Seminar	Nursing theory and practical classes	Oral and Poster presentation at National/State CMEs	Human experiments
Symposium		Journal publication	Amphibian Lab
Seminar			Mammalian Lab
Journal club			Neurophysiology Lab
Case presentation			Cardiorespiratory Lab
Group Discussion			Exercise Physiology/Yoga Lab



Academic & Research Activity Completed

Sl. No.	Research Presentations	Program & Venue	Date
1	Paper presentation	BMSeCON'23 AVMC	13 th to 15 th December 2023
2	Poster Presentation	Vita Electio'24 VMCHRI	4 th to 6 th April 2024

Sl. No.	Courses Attended	Conducted by	Date
1	BCBR	SWAYAM NPTEL Madurai	24 December
2	Research Methodology for PGs	TNMGR Medical University	26 – 28 March 2024
3	Good Clinical Practice	Institute of Pharmacology, MMC	25 th April 2024
4	PG Master-class	Ripples SRMCHRI	5 th and 6 th June 2024
5	Research Methodology Workshop for PGs	Department of Community Medicine, VMCHRI	31 st July to 2 nd August 2024

Sl. No.	Research Projects	Guide	Status
1	Effect of eye exercises on visual field and visual reaction time	Dr. S. Anu	Completed
2	Thesis – Critical Fusion Frequency and Finger dexterity in IT professionals in Madurai – An Observational Study	Dr. S. Anu	Ongoing
3	Effect of 7 days of minimalistic app usage on screen time among First Year Medical Students	Dr. S. Anu	Ongoing



Case Discussion

Faculty Incharge: Dr. S. Anu, Professor & HOD

Sl. No.	Case Discussion Topics	Date
1	Warfarin therapy	14/11/23
2	Anemia	20/12/23
3	Thalassemia	29/12/23
4	Hirschsprung's disease	03/01/24
5	Achalasia cardia	10/01/24
6	GFR	05/02/24
7	Bronchial Asthma	06/02/24
8	Acromegaly	05/03/24
9	Conn's syndrome	19/03/24
10	Diabetes mellitus	09/04/24
11	Thalamic syndrome	28/05/24
12	Kluver Bucy syndrome	11/06/24
13	Night blindness	25/06/24
14	Osmolarity	09/07/24
15	Hypokalemic periodic paralysis	30/07/24
16	Oxygen debt	06/08/24
17	Cellular immunity	17/09/24



Pedagogy

Faculty Incharge: Dr. John Rajpathy, Professor

Sl. No.	Pedagogy Topics	Date
1	Phagocytosis	08/11/23
2	Excitation Contraction Coupling	06/12/23
3	Sodium Potassium Pump	20/12/23
4	Baroreceptor Reflex	09/01/24
5	Reynold's Number	13/02/24
6	Barter's Syndrome	27/02/24
7	Somatomedins	12/03/24
8	Synthesis Of Thyroxine	16/04/24
9	Referred Pain	07/05/24
10	Phantom Limb	21/05/24
11	Wernicke's Aphasia	04/06/24
12	Aqueous humour	18/06/24
13	Na - K pump	02/07/24
14	Gibbs-Donnan equilibrium	16/07/24
15	Aquaporins	03/08/24
16	Excitation of skeletal muscle & Contraction of skeletal muscle	27/08/24
17	Erythropoietin	03/09/24
18	NK Cells	17/09/24



Interdepartmental Seminar

Faculty Incharge: Dr. M. Shanthi, Professor

Sl. No.	Interdepartmental Seminar Topics	Involved departments	Date
1	Platelets - structure and functions	Pathology	20/11/23
2	Transport across cell membrane	Biochemistry	24/01/24
3	Neurotransmitters	Pharmacology	13/06/24
4	Myocardial infarction	Multiple (9)	23/08/24



Symposium

Faculty Incharge: Dr. M. Renu Meena, Assistant Professor
(& Dr. S. Anu)

Sl. No.	Symposium Topics		Date
1	Transport Across Cell Membrane	Structure of Cell membrane	25/10/23
		Passive Transport	01/11/23
		Active Transport	15/11/23
2	Hemodynamics	Anatomy Of Blood Vessels	13/01/24
		Functions Of Blood Vessels	31/01/24
		Blood Flow, Resistance & Pressure Relationship	19/02/24
		Critical Closing Pressure, Law Of Laplace, Bernoulli's Principle	26/02/24
		Blood Flow: Types, Measurement, Distribution	28/02/24
3	Female Reproduction	Anatomy Of Female Reproductive System	06/03/24
		Functions Of Ovaries	13/03/24
		Hormonal And Endometrial Cycle	20/03/24
		Ovarian Cycle	03/04/24
		Other Changes During Reproductive Cycle	10/04/24
4	Ear	Functional Anatomy	15/05/24
		Functions Of Middle Ear	22/05/24
		Anatomy of inner ear	29/05/24
		Mechanism of hearing	19/06/24
5	Hemostasis	Overview of Hemostasis	04/09/24
		Platelet - Physiology & functions	11/09/24
		Coagulation Cascade	18/09/24



Seminar Presentations

Faculty Incharge: Dr. J. T. Ajit Kumar, Assistant Professor
(& Dr. S. Anu)

Sl. No.	Seminar Topics	Date
1	Physiology of ageing	20/10/23
2	Hemostasis	28/10/23
3	Lymph	14/11/23
4	Gut brain axis	28/11/23
5	APUD cells	12/12/23
6	GI motility	29/12/23
7	Cardiac cycle	02/01/24
8	Neural regulation of respiration	29/01/24
9	PCT	13/02/24
10	Loop of Henle	21/02/24
11	Oxytocin	07/03/24
12	Actions of glucocorticoids	23/03/24
13	Spermatogenesis	13/04/24
14	Menstrual cycle	23/04/24
15	Synapse	04/05/24
16	Neurotransmitters I	30/05/24
17	Neurotransmitters II	13/06/24
18	Neuromodulators	27/06/24
19	Homeostasis	13/07/24
20	Active transport	27/07/24
21	Smooth Muscles	09/08/24
22	Degeneration & regeneration of nerves	24/08/24
23	Cell Mediated Immunity	14/09/24



Journal Club

Faculty Incharge: Dr. R. Durai Arasan, Assistant Professor
(& Dr. S. Anu)

Sl. No.	Presented on
1	21/10/23
3	08/11/23
4	09/12/23
5	20/12/23
6	06/01/24
7	10/01/24
8	03/02/24
9	20/02/24
10	09/03/24
11	09/05/24
12	13/05/24
13	18/05/24
15	20/06/24
16	04/07/24
17	20/07/24
18	03/08/24
19	31/08/24



Case Presentations

Faculty Incharge: Dr. Noel Naveen Johnson, Senior Resident
(& Dr. S. Anu)

Sl. No.	Case Presentation Topics	Date
1	Erythroblastosis Foetalis	25/10/23
2	Myasthenia Gravis	02/12/23
3	Peptic Ulcer Disease	03/01/24
4	Cystic Fibrosis	07/02/24
5	Liddle Syndrome	26/02/24
6	Acromegaly	06/03/24
7	Cushing's Syndrome	20/03/24
8	Grave's Disease	10/04/24
9	Paget's Disease	24/04/24
10	UMN Lesion	08/05/24
11	UMN Vs LMN Lesions	14/05/24
12	Parkinson's Disease	17/05/24
13	Hypothalamic Obesity	22/05/24
14	Obstructive hydrocephalus	12/06/24
15	Horner's syndrome	26/06/24
16	Edema	03/07/24
17	Channelopathies	10/07/24
18	Charcot Marie tooth disease	17/07/24
19	Dehydration	24/07/24
20	Duchenne muscular dystrophy	07/08/24
21	Erythroblastosis fetalis	04/09/24
22	Multiple Myeloma	11/09/24



Group Discussion

Sl. No.	Group Discussion Topics	Date
1	Body Fluids	18/10/23
2	Homeostasis	20/10/23
3	Cell Organelles	21/10/23
4	Erythropoiesis	23/10/23
5	Immunity	31/10/23
6	Autoimmune Diseases	09/11/23
7	Neuron Myelination And Growth	20/11/23
8	Gastric Secretion	27/11/23
9	Blood Pressure	08/01/24
10	Cardiac Output	22/01/24
11	Cardiac Regulation	29/01/24
12	Counter-current Mechanism	19/02/24
13	AKI	20/02/24
14	Growth Hormone	04/03/24
15	Thyroid Hormone	11/03/24
16	Calcium Hemostasis	18/03/24
17	Female Hormones	01/04/24
18	Male Hormones	08/04/24
19	Pregnancy Tests	15/04/24
20	Infertility Tests	22/04/24
21	Basal Ganglia	06/05/24
22	Cerebellum	14/05/24
23	Ascending And Descending Tracts	15/05/24
24	Hypothalamus	16/05/24
25	Spinal Cord	17/05/24
26	Cerebral Cortex	20/05/24
27	Thalamus	27/05/24
28	Hypothalamus	03/06/24
29	CSF	10/06/24
30	Functional anatomy of eye	17/06/24
31	Visual pathway	24/06/24
32	RMP, action potential	08/07/24
33	History - Claude Bernard	10/07/24
34	Membrane potentials measurement -	15/07/24
35	History - Goldman, Hodgkins, Katz	17/07/24
36	Apoptosis	22/07/24
37	Cell membrane	29/07/24
38	History - Neher and Sakmann	31/07/24
39	Excitation contraction coupling	05/08/24
40	Smooth muscles	12/08/24



41	Properties of Skeletal muscles	26/08/24
42	Plasma proteins	02/09/24
43	Anemia	09/09/24