

Guest Lecture

Department: Life Science

Activity: Guest Lecture

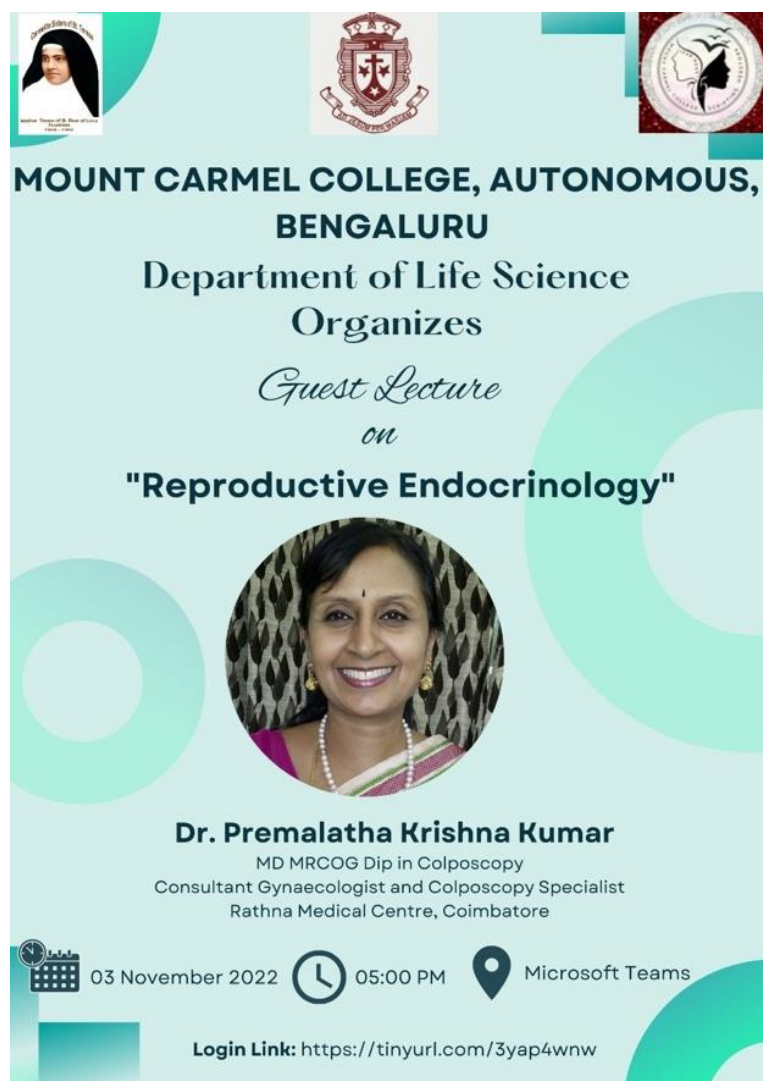
Date: 03rd November 2022

Name of the Programme: Reproductive Endocrinology

Participants: 58

Resource Person: Dr Premalatha Krishna Kumar

Target Audience: Dr. Premalatha Krishna Kumar, consultant gynaecologist and colposcopy specialist from Rathna Medical Centre, Coimbatore addressed the students of M.Sc Life Science on the concepts of reproductive endocrinology. She emphasized on the cancer awareness amongst young girls and the available screening tests. She also explained the relation between reproductive hormones and their relation in the increasing incidences of PCOD. She also threw light on the influence of diet on PCOD and the prophylactic vaccines available for cervical cancer.



**MOUNT CARMEL COLLEGE, AUTONOMOUS,
BENGALURU**

**Department of Life Science
Organizes**

*Guest Lecture
on*

"Reproductive Endocrinology"

Dr. Premalatha Krishna Kumar
MD MRCOG Dip in Colposcopy
Consultant Gynaecologist and Colposcopy Specialist
Rathna Medical Centre, Coimbatore

03 November 2022 05:00 PM Microsoft Teams

Login Link: <https://tinyurl.com/3yap4wnw>

Full Name	User Action	Timestamp
SOMYA PANI	Joined before	11/3/22, 4:47:06 pm
SOWMYA KUMAR	Joined	11/3/22, 4:47:06 pm
Dr Premalatha Krishna Kumar (Guest)	Joined	11/3/22, 4:50:07 pm
suba manuel	Joined	11/3/22, 4:50:36 pm
suba manuel	Left	11/3/22, 5:00:07 pm
suba manuel	Joined	11/3/22, 5:01:03 pm
ASEM RANITA DEVI	Joined	11/3/22, 4:51:41 pm
DIVYA RASHMI	Joined	11/3/22, 4:52:56 pm
NAOMI VARGHESE	Joined	11/3/22, 4:53:03 pm
ALPHY ANNA JOMON	Joined	11/3/22, 4:53:30 pm
J R THENMOZHI	Joined	11/3/22, 4:55:34 pm
PADMASHREE KULKARNI	Joined	11/3/22, 4:56:33 pm
PADMASHREE KULKARNI	Left	11/3/22, 4:58:50 pm
PADMASHREE KULKARNI	Joined	11/3/22, 5:00:18 pm
PADMASHREE KULKARNI	Left	11/3/22, 5:02:46 pm
PADMASHREE KULKARNI	Joined	11/3/22, 5:03:34 pm
VATHSALYA SN	Joined	11/3/22, 4:58:40 pm
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VATHSALYA SN	Joined	11/3/22, 5:03:39 pm
PRERANA P	Joined	11/3/22, 4:59:42 pm
HASCINAKUMARI ASHEM	Joined	11/3/22, 4:59:57 pm
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HASCINAKUMARI ASHEM	Joined	11/3/22, 6:10:56 pm
SIDRAH NEHAL	Joined	11/3/22, 5:00:19 pm
V BHAVYASREE	Joined	11/3/22, 5:00:43 pm
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V BHAVYASREE	Joined	11/3/22, 5:57:15 pm
MAATILDA KHUNDRAPAM	Joined	11/3/22, 5:00:49 pm

PANCHAMI GOPAL GAITONDE	Joined	11/3/22, 5:08:09 pm
SHALINI	Joined	11/3/22, 5:08:12 pm
ANWESHA DAS	Joined	11/3/22, 5:12:45 pm
LAVANYA V	Joined	11/3/22, 5:12:53 pm
REENU S	Joined	11/3/22, 5:13:15 pm
SUPRIYA MAGRET SAMAD	Joined	11/3/22, 5:13:19 pm
ABHIJNA MR	Joined	11/3/22, 5:14:28 pm
ABHIJNA MR	Left	11/3/22, 5:32:25 pm
ABHIJNA MR	Joined	11/3/22, 5:37:48 pm
SHUBHA PRAKASH	Joined	11/3/22, 5:15:23 pm
SHUBHA PRAKASH	Left	11/3/22, 5:16:13 pm
SHUBHA PRAKASH	Joined	11/3/22, 5:21:55 pm
SHUBHA PRAKASH	Left	11/3/22, 5:36:06 pm
REENA AMAKCHAM	Joined	11/3/22, 5:17:11 pm
SHAHANAZ S	Joined	11/3/22, 5:19:04 pm
KARUNYA. V	Joined	11/3/22, 5:25:02 pm
MAHALAKSHMI.K.N.	Joined	11/3/22, 5:29:58 pm
PAVITHRA M	Joined	11/3/22, 5:30:04 pm
NIKITA S NAIR	Joined	11/3/22, 6:10:04 pm

EC 03: Human Endocrinology and Reproductive Biology**45 hrs****Objectives:**

Enable the students to

- Have a sound coverage of human endocrinology and reproductive biology.
- Get acquainted with endocrine system and its regulation.
- Understand the human developmental process, related disorders and treatment profile.

Course Outcomes

CO 1: Demonstrate an understanding of the endocrine organ system. The role of the hormones in maintaining body function. The student will demonstrate knowledge of the major endocrine disorders

CO 2: Demonstrate an understanding of the basic properties of hormones. Describe major actions of each hormone on target cells

CO 3: Students will have broad understanding of reproductive system

CO 4: Students will gain a good basic knowledge of the biological events of early human developmental biology

CO 5: Students will have basic knowledge of reproductive anomalies and assisted reproductive technology

Details:

UNIT 1	An introduction to Endocrinology	Hrs 06
	Human endocrine organs , their functions, hypo and hyper secretions and effects—Pituitary, thyroid, parathyroid, adrenal, pancreas, gonads, pineal gland	04
	Hypothalamo- hypophyseal axis; stimulatory and inhibitory factors; feedback control.	02
UNIT 2	Hormone action	Hrs 06
	Mechanism of Hormone action; cAMP as second messenger	02
	Steroid biogenesis	02
	Classification, structure , biosynthesis and biological role of prostaglandins	02
UNIT 3	Reproductive system	Hrs 05
	Male reproductive system-Structure and functions of testis , epididymis, vas deferens and the accessory glands	02
	Female reproductive system-ovaries, oviducts, uterus and vagina	02
	Menstrual cycle and its regulation	01
UNIT 4	Gonad differentiation , gametogenesis and fertilization	Hrs 06
	Differentiation and development of fetal gonads and accessory duct system	03
	Sex determination and sex differentiation	01
	Gametogenesis; gametes and their structure	01
	Fertilisation	01

UNIT 5	Cleavage and pre- implantation development in vertebrates	Hrs 06
	Cleavage- types of cleavage establishment of polarity	02
	Gastrulation and morphogenetic movements	01
	Induction and morphogenesis	02
	Implantation and <u>decidual</u> reaction	01
UNIT 6	Placentation, Development and parturition of human fetus	Hrs 05
	Development of placenta and extra embryonic membranes through pregnancy	02
	Placenta as an endocrine organ	01
	Morphological growth indices of the fetus through pregnancy	01
	Parturition- its initiation and progress	01
UNIT 7	Developmental anomalies and prenatal diagnostics	Hrs 05
	Developmental anomalies	01
	Chromosomal anomalies, chorionic villus sampling and amniocentesis for congenital anomalies	01
	Neonatal distress- fetal distress and its repercussion post delivery, Preterm delivery, respiratory distress, neonatal jaundice, lactose intolerance	03
UNIT 8	Reproductive anomalies	Hrs 06
	Reproductive dysfunctions in male- Azoospermia, prostate enlargement, cryptorchidism	02
	Reproductive dysfunctions in female-menstrual disorders(amenorrhea, premenstrual syndrome, dysmenorrhea); polycystic ovaries	01
	Fertility control measures	01
	Causes and Treatment of male and female infertility	01
	Assisted reproduction technology	01

References:

1. Richard E Jones. 2013. Human Reproductive Biology. 4th edition Academic Press.
2. Gayathri Prakash. 2007. Reproductive Biology 1st edition Alpha Science International Ltd.
3. Sastry K V. 2005. Endocrinology and Reproductive Biology. Rastogi Publications.
4. Bruce Carlson. 2019. Human Embryology and Developmental Biology. 6th edition Elsevier Publications.
5. Boris Balinsky. 2012. An introduction to embryology. 5th edition Cengage Learning India.