AU College of
Pharmaceutical Science

Brochure

Master of Clinical Embryology

PG Diploma in Clinical Embryology

Life Institute of
Fertility Science

Life Institute of Fertility Science

Infertility affects about 15-20% of married couples and is a huge social problem in many countries including India. Fertility clinics offers the treatments to infertile couples through IVF technologies by A professionally qualified and trained Embryologists who performs most complex procedures of the life in advanced Embryology laboratories.

Life Fertility is a premier Assisted Reproduction center in Visakhapatnam offering fertility services to North Coastal Andhra Pradesh and to State of Orissa and is having In-house facilities such as outpatient department. Class 7 Embryology Laboratory and dedicated Training Laboratories for Infertility specialists, Andrologist and Embryologists with Advanced micromanipulator systems.

Andhra University is a prestigious 98-year-old institution known for its academic excellence and research. The university has attained ISO 9001-2000 certification, received an 'PAW grade (score of 3.74) from the National Assessment and Accreditation Council (NAAC), and possesses five constituent colleges. Andhra University offers over 300 degree programs across disciplines including Ads, Commerce, Management, Science and Technology, Engineering, Pharmaceutical Sciences and Education. As the university approaches its 100th anniversary in 2026, it Is well-positioned to celebrate this historic centennial milestone.

There is a rise In infertility cases in men and women globally and this led to an increased demand for professionally qualified Embryologists. Realizing the potential for professional expertise in assisted reproductive technology and to pave the path for scientific research in invitro fertilization technology-- ++++++

Life Fertility proudly announce the Academic Collaboration in the form of launching Master of Clinical Embryology and Post graduate diploma in clinical embryology with Andhra University and strongly aiming of forging a formal synergistic linkage to develop new collaborative teaching and research programmes in the areas of Assisted Reproductive Technologies.

FACULTY

Dr. Rajini Rajendra Kumar MBBS.DGO,
Hon. Faculty – Clinical Department

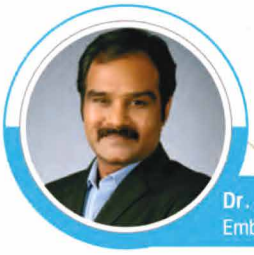
Dr. Eshita, PhD,
Faculty – Reproductive Genetics

Dr. G. Shashi Kumari, MBBS, DNB
Clinical Course Director

Dr. Pravallika
Faculty IVF laboratory

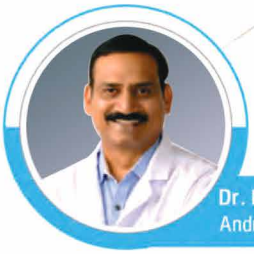
Dr. Lavanya, MBBS, DNB, Faculty
Clinical Department

Mrs. RUPADEVI, MSc.
Faculty – Microbiology



Dr. Jaya Prakash, Phd
Embryology Course Director

Dr. K. B. Prasad, Phd, Medipaq, Australia
Expert Faculty, – QAQC Department



Dr. K. Murali Krishna, PhD
Andrology Course Director

Mrs. Renukadevi
Supervisor – Laboratory Division

Dr. Vijaya Bharathi, PhD
Academic Training Head

Prof. K. Eswar Kumar,
Academic Co-Ordinator, Andhra University

Master of Clinical Embryology

(A Self Support Specialized Program by Andhra University and Life Fertility and Research Centre)

The degree of Master of Clinical Embryology of the Andhra University will be conferred on a candidate who has satisfied the following conditions:

1.1. Eligibility: B.Pharm/ M.Pharm/ PharmD/ MBBS/ BDS/ BVSC/ BHMS/ BAMS/ BPT/ BSc Nursing/ BSc(MLT)/ BSc Allied Sciences, B.Tech (Biotechnology and Life Science related any other Equivalent BSc in Life Sciences (Biochemistry, Biotechnology, Microbiology, Zoology, Botany) from a recognised university with 50% of marks in qualifying examination

1.2 Admission : For admission details, please visit www.lifeivftraining.com.

The subjects of specializations for Master of Clinical Embryology Course shall be as follows :

1.2.1. Reproductive Biology

1.2.2. Introductory microbiology

1.2.3. Reproductive Genetics

1.2.4. Assisted Reproductive Technologies

1.2.5. Advance IVF Technology

1.2.6. Biostatistics and Research Methodology

1.3. Each academic year is to be divided into two semesters, with a minimum of 90 working days in each (180 days in any given academic year) for instruction and exams.

1.3.1. Seminars: For the first and second semesters, two days of each week will be devoted to a seminar that will be conducted with the goal of enhancing the necessary explanatory, communication, and presentation abilities.

1.3.2. Journal club: the students will be engaged for a period of 1 month in the 4" semester of the course, before the students peruse their respective internships. Topics that will be included in the discussion of the journal club by each student are as follows: One Case study, One Research article and One Meta Analysis

1.3.3. Internship - IV Semester: A candidate has to undergo Internship at any DMHO registered Fertility clinic having facilities to carryout Invitro fertilization procedures for a period of 02 months. During the Internship, Candidate is required to attend IVF clinical and Laboratory work

1.3.4. All the students should present a seminar on the objectives of their work, work protocol, Study results and conclusion etc. in the presence of a committee consisting of one external examiner, research director during the Final Viva.

Program Educational Objectives

Upon completion of the program, the student will be able

1) To understand the concept of Gamete biology and the significance of physiological, Genetic, Environmental and Lifestyle factors affecting the fertility in males and females

2) To understand the important concepts of introductory microbiology and its significance in ART laboratories with respect to cell culture techniques and methods of sterilization.

3) To also understand the morphokinetic analysis of human spermatozoa and role of morphokinetic properties of oocytes in Infertility.

4) To enrich the students with deep and proper understanding on ovarian hyperstimulation by Hormonal treatment with Pharmacological agents (recombinant hormones), gain the knowledge on the most critical stages of early form of life with micromanipulation systems in invitro.

5) To educate the students about the importance of morphological quality and genetic health of embryos and blastocysts on their Endometrial implantation.

6) To gain the knowledge on design aspects, IVF Laboratory instrumentation, QAQC and regulatory requirements as per ART registry laid for Level 1, Level 2 Fertility establishments.

7) To work as an Independent Embryologist, A multifaced personality with expertise in the areas of a) As Technical Expert B) As Laboratory Manager C) As Researcher D) As Collaborator E) As a Scholar F) As Counsellor G) and As a Mentor.

Master of Clinical Embryology

Semester Code	Course	Credits	Hours / Week	Internal Assessment			Semester End Exam	Total
				Continuous Evaluation	Sessional Exam	Total		
I Semester								
MEMB 101T	Reproductive Biology & Genetics	4	4	10	20	30	70	100
MEMB 102T	Introductory microbiology	4	4	10	20	30	70	100
MEMB 103P	Andrology Laboratory	6	12	15	15	30	70	100
MEMB 104P	Microbiology and Analytical Techniques Laboratory	6	12	15	15	30	70	100
MEMB 105S	Seminar	4	4	50	--	--	--	50
	Total	24	36	100	70	120	280	450
II Semester								
MEMB 201T	Reproductive Genetics	4	4	10	20	30	70	100
MEMB 202T	Assisted Reproductive Technologies	4	4	10	20	30	70	100
MEMB 203P	Andrology Laboratory - 2	6	12	15	15	30	70	100
MEMB 204P	Embryology Laboratory - 1	6	12	15	15	30	70	100
MEMB 205S	Seminar	4	4	50	--	--	--	50
	Total	24	36	100	70	120	280	450
III Semester								
MEMB 301T	Advance IVF Technology	4	4	10	20	30	70	100
MEMB 302T	Biostatistics and Research Methodology	2	2	10	20	30	70	100
MEMB 303P	Embryology Laboratory - 2	8	12	15	15	30	70	100
MEMB 304P	Cryobiology Laboratory	8	12	15	15	30	70	100
	Total	24	30	50	70	120	280	400
IVSemester								
MEMB 401	Journal Club	2	18	50	--	--		50
MEMB 402	Internship	10	--	--	--	--	150	150
MEMB 403	Thesis submission/evaluation	10	20	--	--	--	150	150
MEMB 404	Thesis viva	6	--				50	50
	Total	28	38	50			350	400

Post Graduate Diploma In Clinical Embryology

(A Self Supported Specialized Program by Andhra University and Life Fertility and Research Centre)

The PG Diploma in Clinical Embryology of the Andhra University will be conferred on a candidate who has satisfied the following conditions:

1.1 Eligibility: The candidate must have passed: B.Pharm /Pharm D /MBBS /BDS /BVSC /BHMS /BAMS/BSc Nursing/Engineering with Science (Biotechnology and Life Science related) any other Equivalent BSc in Life Sciences (Biochemistry, Biotechnology, Microbiology) from a recognized university with 50% of marks in qualifying examination

1.2 Admission : For admission details, please visit www.lifeivftraining.com.

The subjects of specializations for PG Diploma in Clinical Embryology Course shall be as follows:

1.2.1. Reproductive Biology & Genetics

1.2.2. introductory microbiology

1.2.3. Assisted Reproductive Technologies

1.2.4. Advance IVF Technology

1.3. PG Diploma in Clinical Embryology Courses to divided into two semesters, with a minimum of 90 working days in each (180 days in any given academic year) for instruction and exams.

PROGRAM EDUCATIONAL OBJECTIVES

Upon completion of the program, the student will be able

1. To understand the concepts and factors affecting the fertility in males and females

2. To understand the important concepts of introductory microbiology and its significance in ART laboratories with respect to cell culture techniques and methods of sterilization.

3. To also understand the morphokinetic analysis of human spermatozoa and role of morphokinetic properties of oocytes in Infertility.

4. To educate the students about the importance of quality embryos and blastocysts on their Endometrium implantation.

5. To gain the knowledge on design aspects, IVF Laboratory instrumentation, QAQC and regulatory requirements as per ART registry laid for Level 1, Level 2 Fertility establishments.

To work as an Independent Embryologist.

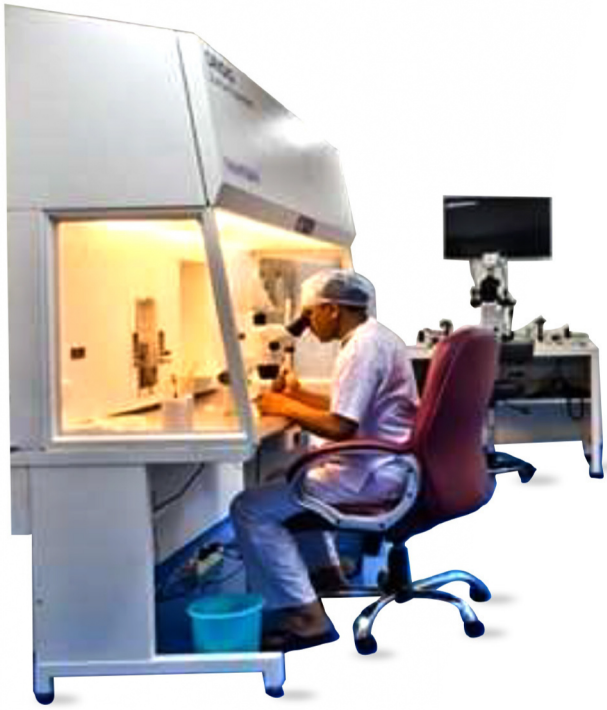
Post Graduate Diploma In Clinical Embryology

Semester Code	Course	Credits	Hours/ Week	Internal Assessment			Semester End Exam	Total
				Continuous Evaluation	Sessional Exam	Total		
I Semester								
PGEMB 101T	Reproductive Biology & Genetics	6	4	10	20	30	70	100
PGEMB 102T	Introductory microbiology	4	4	10	20	30	70	100
PGEMB 103P	Andrology Laboratory	10	12	15	15	30	70	100
PGEMB 105S	Seminar	4	4	50	--	--	--	50
	Total	24	24	85	55	90	210	350
II Semester								
PGEMB 201T	Assisted Reproductive Technologies	6	4	10	20	30	70	100
PGEMB 202T	Advance IVF Technology	6	4	10	20	30	70	100
PGEMB 203P	Embryology Laboratory	10	12	15	15	30	70	100
PGEMB 205S	Seminar	4	4	50	--	--	--	50
	Total	26	24	85	55	90	210	350

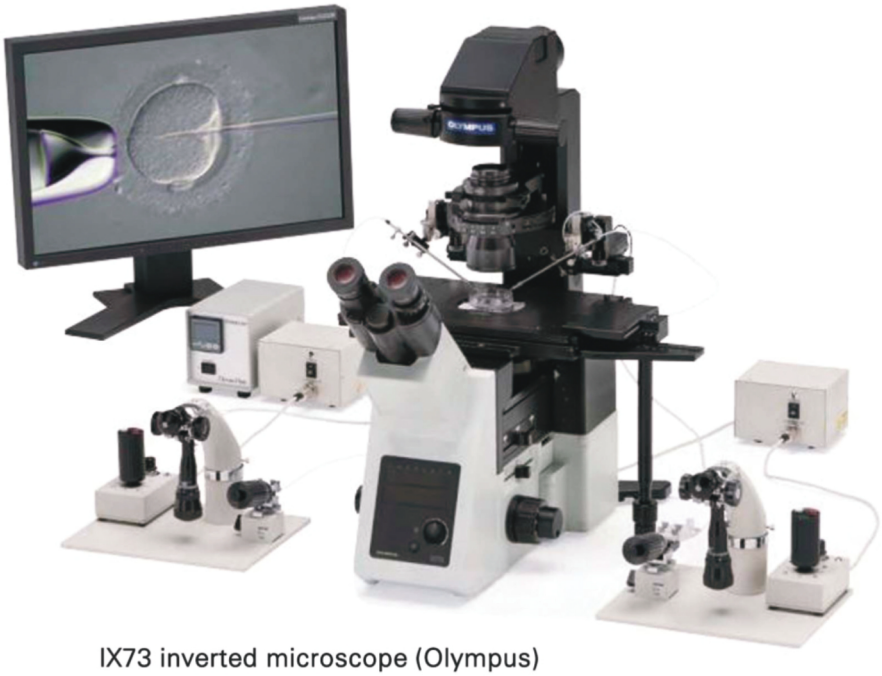
Course Fees:

Course Fee Structure	Course Duration	Nationality	Registration Fees (EMBCET)	Admissions fees	Fees I - Semester	Fees II - Semester	Fees III - Semester	Fees IV - Semester
Master of clinical Embryology	02 yrs (04 semesters)	Indian	Rs. 1500/-	Rs. 70,000/-	Rs. 1,00,000/-	Rs. 1,60,000/-	Rs. 1,60,000/-	Rs. 1,60,000/-
		Foreign (Students from other countries)	US $ 50	US $ 600	US $ 3000	US $ 3600	US $ 3600	US $ 3600
PG Diploma in Clinical Embryology	01 Year	Indian	Rs. 1500/-	Rs. 50,000/-	Rs. 1,00,000/-	Rs. 1,50,000/-	-	-
		Foreign (Students from other countries)	US $ 50	US $ 600	US $ 3000	US $ 3600	-	-

Embryology Laboratory



ICSI-Micromanipulator



IX73 inverted microscope (Olympus)

Ti-U Inverted microscope (Nikon)

Micromanipulator (Narshige) is used for intracytoplasmic injection of spermatozoa into oocytes, spindle image analysis, Blastomere biopsy and assisted hatching of embryos and blastocysts.

Integra 3 Micromanipulator

SZX 10 (Olympus)

SMZ 1000 (Nikon)

RESEARCH

The quality of our work and services was accepted globally in the name of our research publications. We published significant number of research papers in the top most, impressive impact factor valued, highly indexed and peer reviewed journals. There are as follows:

PUBLICATIONS:

1. Jayesh Amin, Naga Sandhya Alle, Ami Patel, Bansi Prajapathi, Paresh Makwana, Jaya Prakash, Kota Murali Krishna. Significance of FSHR and LHCGR gene polymorphisms on clinical outcomes in gonadotropin-releasing hormone antagonist protocol with freeze-all strategy: A case- control study. International Journal of Reproductive Bio Medicine.2024, 22(7), 539-552.

2. Chegondi V Narayana Rao*, Sindhu Chegondi, Kota Murail krishna. Efficacy of 2D/3D HyCoSy with new contrast medium lignocaine and saline compared with HSG – A single center prospective study. Indian Journal of Obstetrics and Gynecology Research 2024; 11, (1), 58 – 65.

3. Amin J Sr, Patel R, Jayesh Amin G, Gomedhikam Jaya Prakash, Suryakala S, Kota Murail krishna. Personalized Embryo Transfer Outcomes in Recurrent Implantation Failure Patients Following Endometrial Receptivity Array With Preimplantation Genetic Testing. Cureus. 2022 Jun 23;14(6):e26248. doi:10.7759/cureus.26248. PMID: 35911354; PMCID: PMC9312421.

4. Rao CVN, Sindhu C, Kota Murail krishna. Three-dimensional Hysterosalpingo Contrast Sonography with Lignosal as Contrast for Evaluation of Tubal Patency in the Infertile Women – An Observational Cohort Study. Am J Sonogram 2019;2(4):1-8. Am J Sonogram 2019;2(4):1-8.

5. Ramaraju G.A., Ravikrishna Cheemakurthi, Kavitha Prathigudupu, Kavitha Lakshmi Balabomma, Madan Kalagara, Sivanarayana Thota, Kota Murail krishna, Role of Lh polymorphisms and r-hLh supplementation in GnRh agonist treated ART cycles: A cross sectional study, European Journal of Obstetrics & Gynecology and Reproductive Biology. 2018, 222, 119-125.

6. Ramaraju GA, Teppala S, Prathigudupu K, Kalagara M, Thota S,Kota Murail krishna, Cheemakurthi R. Association between obesity and sperm quality. Andrologia. 2018 Apr;50(3). doi: 10.1111/and. 12888. Epub 2017 Sep 19.

7. Ravi Krishna Cheemakurthi, Gottumukkala Achyuta Rama Raju, Thota Sivanaryana, Kalagara Madan, Kota Murali Krishna, Godi Sudhakar. Case Report: A 54-base pair inactivating mutation of LHCGR in a 28-year-old woman with poor ovarian response. F1000Research, 2015, DOI: 10.12688/f1000research.6137.1. 4:72

8. Vijaya Bharathi B, G Jaya Prakash, Kota Murail krishna, Ravi Krishna CH, Sivanarayana T, Madan K, Rama Raju GA, Annapurna A. Protective effect of alpha glucosyl hesperidin (Hesperidin) on chronic vanadium induced testicular toxicity and sperm nuclear DNA damage in male Sprague Dawley rats. Andrologia. 2015 Jun;47(5):568-78.\

9. T. Sivanarayana Ch. Ravi Krishna, G Jaya Prakash, Kota Murail krishna, K. Madan, G. Sudhakar G. A. Rama Raju. Sperm DNA fragmentation assay by sperm chromatin dispersion (SCD): correlation between DNA fragmentation and outcome of intracytoplasmic sperm injection. Reprod med Biol 2014,13: 87-94.

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11. Rama Raju GA, G Jaya Prakash, kota Murali Krishna, Madan K, Siva Narayana T, RaviKrishna CH. Noninsulin-dependent diabetes mellitus: effects on sperm morphological and functional characteristics, nuclear DNA integrity and outcome of the assisted reproductive technique. Andrologia. 2012 May;44 Suppl 1:490-8.

12. G. A. Rama Raju, G Jaya Prakash, Kota Murali Krishna, K. Madan. Vitrification of human early cavitating and deflated expanded blastocysts: clinical outcome of 474 cycles. J Assist Reprod Genet 2009, 26:523–529.

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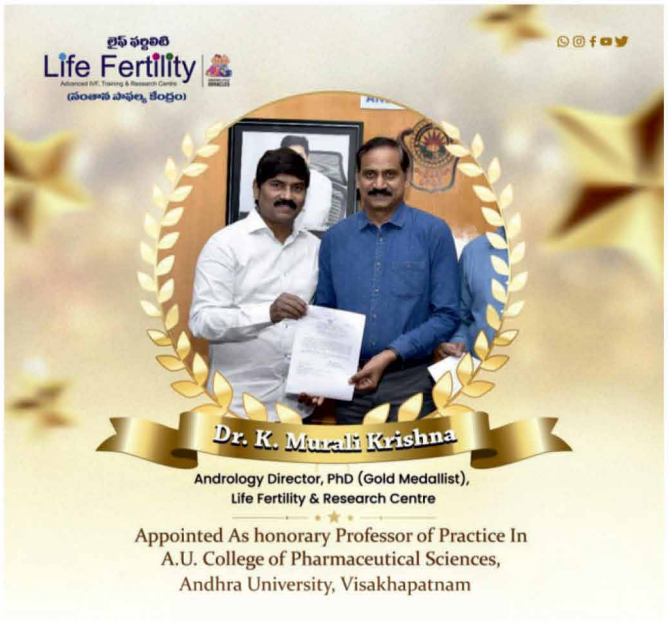
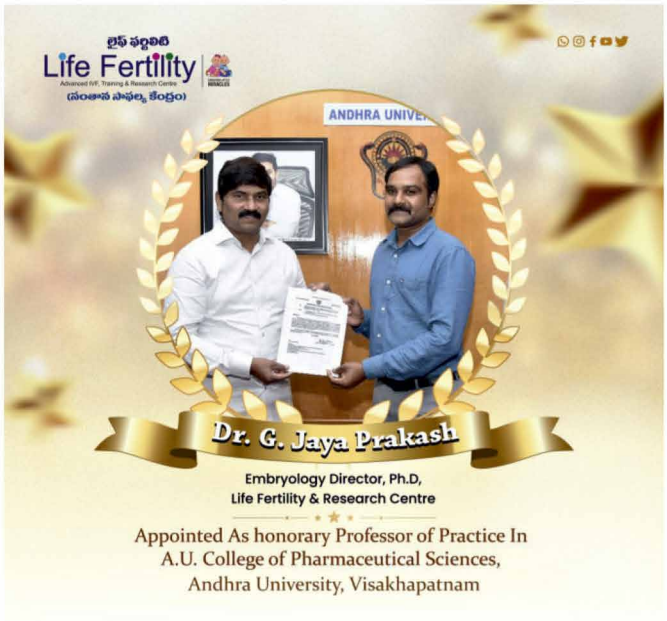
Andhra University-Life Fertility MOU - In Academic Research





Prof. Dr. K. Muralikrishna, PhD
Managing Director
Life Fertility and Research Centre

Prof. Dr. G. Jaya Prakash, PhD
Embryology Director
Life Fertility and Research Centre

For further details

info@lifeivftraining.com
lifeivftraining.com

Call Us on

+91 8977922549
8977063555

Life Institute of Fertility Science

#16-1-25, RS Edifice, 5th Floor,
Coastal Battery Rd, Collector Office, Jn,
Visakhapatnam-530002

AU College of Pharmaceutical Sciences
Andhra University
Visakhapatnam