BAHRA UNIVERSITY
SHIMLA HILLS

Institute of Translational Health Science
ilhs

EMBRYOGENESIS™
INFERTILITY DIAGNOSTIC & RESEARCH
"Redefining Fertility Evaluation"

Pursue your career as
EMBRYOLOGIST

FIRST TIME IN
HIMACHAL PRADESH



PROSPECTUS 2025-2026

DEPARTMENT OF
CLINICAL EMBRYOLOGY

(Under the aegis of ITHS & EMBRYOGENESIS)

"Gain The Skills to Help Couple Start Their Happy Family"

ABOUT THE
UNIVERSITY & ITHS - DEPARTMENT

Bahra University, approved by University Grants Commission (UGC) is located in the Shimla Hills, Solan and was established in the year 2011. The University is one of the leading members of the Association of Indian Universities (AIU). Bahra University has been ranked as the Number 1 University in Himachal Pradesh and has grabbed 13th position in India by Silicon Valley 2014. Bahra University offers Engineering, Pharmaceutical Sciences, Law, Hospitality, Management and many more featured programs. The admission into these courses is conducted both based on the merit and accepted entrance test scores. Bahra University also has International Tie-ups with some of the leading universities across the globe.

Institute of Translational Health Science (ITHS), Institute of Nutrigenetics & Nutrigenomics Research (INNR) and EMBRYOGENESIS- Infertility Diagnostic & Research are founded by Ms. Jyoti Garhewal & Prof. Pulakes Purkait in 2023 and EMBRYOGENESIS-Infertility Diagnostic & Research, Mohali & Kolkata established in 2024.

ITHS INNR, & EMBRYOGENESIS in association with **Rayat Bahra Group of Institution** established the "Translational Health Science departments" on focus of quality education and research in translational health science at Rayat Bahra University campus, Mohali in 2023.

First time in Himachal Pradesh, ITHS, INNR & EMBRYOGENESIS in association with **Bahra University** (BU) introduced the **"Department of Clinical Embryology** in 2024.

To emerge as the Top Education Institute, BU has entered into an academic-Industrial partnership with numerous companies and research institutes including **Institute of Translational Health Science (ITHS)**, **Institute of Nutrigenetics & Nutrigenomics Research (INNR)**, **EMBRYOGENESIS** -Infertility Diagnostic & Research, IBM, Wipro, Zscaler, Infosys etc.

BAHRA UNIVERSITY



S. Gurvinder Singh Bahra
Chairman, RBGI
Chancellor, BU



Gurinder Bahra
Vice Chairman, RBGI



Vineet Kumar
Registrar, BU

INSTITUTE OF TRANSLATIONAL HEALTH SCIENCE



Ms. Jyoti Garhewal
Founder & Director, INNR
Founder & Director, ITHS
HOD, CE, BU



Prof. (Dr.) Pulakes Purkait
Director, ITHS
Founder, EMBRYOGENESIS
Co-Founder & Director, INNR



S. Gurvinder Singh Bahra
Chairman, Rayat Bahra Group

Ms. Jyoti Garhewal
Founder & Director, INNR & ITHS

Prof. Pulakes Purkait
Co Founder & Director, INNR & ITHS,
Founder & Director, EMBRYOGENESIS

MESSAGE FROM THE FOUNDER & DIRECTOR, ITHS



MS. JYOTI GARHEWAL
M.Sc., Ph.D. (Pursuing)

Patent: 8
Publication: 2

Welcome Dear Students,

I extend a warm welcome to each of you as you embark on this exciting journey of academic discovery and personal growth. Your decision to join our community marks the beginning of a transformative experience that will equip you with the knowledge and skills necessary to excel in the ever-evolving field of health science. We are committed to fostering an environment that encourages innovation, collaboration, and critical thinking. I encourage you to take full advantage of the resources and opportunities available to you during your time here. Together, we will work towards a brighter future in health science, and I look forward to witnessing the remarkable contributions you will make to this vital field.
I Wish you All Success and look forward to a Wonderful experience with you

Warm regards,
Ms. Jyoti Garhewal
Founder & Director,
Institute of Translational Health Science
Institute of Nutrigenetics & Nutrigenomics Research

MESSAGE FROM THE DIRECTOR, ITHS



Prof. (Dr.) Pulakes Purkait
M.Sc., Ph.D., Post Doc,
JRF, SRF, PDF

Patent: 15+
Publication: 30+

Dear Students,

On behalf of the Institute of Translational Health Science, I am delighted to welcome you to our esteemed programs focused on Clinical Embryology at Bahra University, Shimla campus. Your decision to embark on this academic journey marks the beginning of an exciting exploration into the complexities of health and disease. We are committed to fostering an environment where innovation and research thrive, and each of you is an integral part of that mission. As you engage with our distinguished faculty and collaborate with fellow scholars, I encourage you to embrace the challenges and opportunities that lie ahead. Together, we can advance our understanding and contribute meaningfully to the fields of health and science. Welcome to our community.

Warm regards,
Prof. (Dr.) Pulakes Purkait
Director, Institute of Translational Health Science

WHAT IS CLINICAL EMBRYOLOGY?



Embryology is the science that deals with the development and growth of an individual before birth. It begins with fertilization of an oocyte (ovum) by a sperm and culminates with the birth of the baby.
Clinical Embryology is a stream of biology which mainly focuses on the study of fertilisation of eggs and the healthy development of the embryos. Specialised persons working in the field of Clinical Embryology are known as embryologists. An embryologist focuses on the creation of embryos outside the mother's womb (Embryology Laboratory) with the help of sperm and eggs. Therefore, they play a very critical role in the lives of couples devoid with naturally conceiving abilities. In a country, like India, where a massive population has been facing issues like infertility, embryologists are often considered as life-savers for families and couples. Eminent medical institutions and organisations have been offering multiple courses in Clinical Embryology course to help raise exceptional medical practitioners for the future.

EMBRYOLOGY COURSE AND ITS SCOPE

Since the birth of the first test-tube baby (Louise Brown born in Manchester, England on 25th July 1978) and the first test tube baby of India "Durga" born in Culcutta, West Bengal on 3rd October 1978) through In-Vitro Fertilization (IVF), IVF centers have mushroomed around the world. Although, infertility affects about 15-20% of married couples and it is a huge social problem in many countries. In India alone, there are more than 2000 IVF centers to treat infertile couples and this number would increase multiple folds in coming years.
At the moment, there is a huge shortage of in-house embryologists. The exponential growth of IVF centers has necessitated the need for qualified embryologists. The course "Clinical Embryology" has been designed to meet the shortage of qualified embryologists and proposed regulatory requirements of ART Bill 2022 of Govt. of India and Indian Council of Medical research (ICMR). The course offers theoretical as well as Hands-on practical knowledge in Reproductive biology, Andrology, basic and advanced embryology, reproductive genetics & Counselling, infertility management and ART techniques at the master's as well as PG Diploma level. After completing the course students will be equipped with sound technical knowledge of embryology & genetics and they will be ready to work in any advanced IVF center.





Patrick Steptoe and Robert G Edwards pioneered the development of the technique of in vitro fertilization. Louise Brown is the first test tube baby born in 25th July, 1978., in Manchester, England, UK.





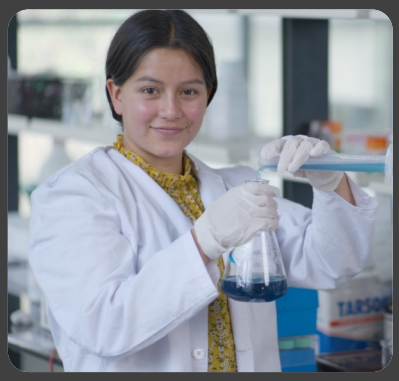
Dr. Subhas Mukhopadhyay and "Durga" the first Test Tube baby in India, born in 3rd October 1978, in Culcutta, West Bengal.

PROGRAMS OFFERED

B.Sc. (Hons/ Research)

Clinical Embryology

Duration: 3 Years (6 Semesters) / 4 Years (8 Semesters)
Eligibility: 12th Class (PCB/ M)
Course Fee:
Semester Fee : INR 39,875/-
Annual Fee : INR 79,750/-



M.Sc

Clinical Embryology

Duration: 2 years (4 Semesters)
Eligibility: Undergraduate / B.Sc. Life Sciences, Embryology, Nutrigenetics, Genetics, Microbiology, Biotechnology, Anthropology, Human Biology, MLT / MBBS, BDS, BVSc., and Allied Sciences
Course Fee :
Semester Fee : INR 100000/-
Annual Fee : INR 200000/-



CAREER OPPORTUNITIES

- Embryologist
- Lab Director
- ART quality manager
- Academician
- Professor
- Researcher

FACULTY



Prof. (Dr.) Pulakes Purkait
M.Sc.(VU), Ph.D.(AU), Post Doc (PU, Chandigarh), JRF , SRF (Govt. Of India), PDF (UGC)

Patent: 15+
Publication: 30+

"Best Innovator Award" for Infertility Treatment, NHBC 2024, IIT Delhi



Ms. Arnika Singh
B.Tech & M.Tech (Biotech), PGD Clinical Embryology
Asst. Prof & Embryologist



Ms. Nancy Soni
B.Sc. (Micro) , M.Sc. (Biotech.), UGC NET, ICAR AICE -JRF
Asst. Prof & Stem Cell Biologist

VISITING FACULTY



DR. MEENU BHANOT
Ph.D. (Exp:15 Years.)
Asst. Prof., Clinical Embryology
ITHS, RBU



DR. RIMMY SINGLA
MBBS, DGO, FICOG, MRCOG-1-UK
Director, Radiance Hospital & Test Tube Baby Center (Reproductive Medicine)



DR. ALKA
Director, Alka IVF, Udaipur
Visiting Prof.



DR. CHARULATA CHATTERJEE
Senior consultant embryologist



PROF. A.K. SAXENA
Prof & Head, Dept. of Pathology, AIIMS, Patna



DR. VED PRAKASH
Founder, iHERA, New Delhi



DR.SADHANA DESAI
Project In-charge, Embryology Training
ISAR, Mumbai

INTERNSHIP COLLABORATOR

MOU between ITHS & Indira IVF , GIOSTAR-USA



Prof. (Dr.) Pulakes Purkait,
Director,
ITHS & INNR, EMBRYOGENESIS

&
Dr. Anand Srivastava,
Chairman & Co Founder,
GIOSTAR-USA



Prof. (Dr.) Pulakes Purkait,
Director,
ITHS & INNR, EMBRYOGENESIS

Dr. Rimmy Singla, Dr. Raman Singla,
Director Radiance Hospital,
Dr. Kumar Abhiram Jha,



Prof. (Dr.) Pulakes Purkait,
Director,
ITHS & INNR, EMBRYOGENESIS

&

Dr. Ritesh Agarwal
Head, Training Embryology, IFA,
Indira IVF

COURSE STRUCTURE:

M.SC. IN CLINICAL EMBRYOLOGY

SEMESTER 1

- Reproductive Biology
- Fundamentals of Andrology
- Fundamentals of Clinical Embryology
- Laboratory Andrology Tools &Techniques

SEMESTER 2

- Reproductive Genetics &Genetic testing in ART
- Ethics and regulation in ART
- ART Laboratory operation & Management
- Research in ART

SEMESTER 3

- Reproductive Genetic Counselling
- Infertility & Assisted Conception
- Infertility treatment strategies
- Advanced Embryology in ART (IVF, ICSI, & Micromanipulation, Cryobiology

SEMESTER 4

- Research thesis / Dissertation with Industrial Training

B.SC. IN CLINICAL EMBRYOLOGY

SEMESTER 1

- Fundamentals of clinical Andrology
- Human Anatomy & Physiology
- Computer Application and Business Communication
- Molecular Hydrogen Therapy
- Communicative English-I
- Environmental Science

SEMESTER 2

- Human Reproductive Biology
- Cellular & Molecular Biology
- Histopathology
- Application of Microbial Techniques
- Communicative English-II
- Application of AI & SPS

SEMESTER 3

- Reproductive disorders
- Fundamentals of clinical embryology
- Biochemistry
- Psychology
- Communicative English-III
- Universal Human Values, Ethics and Life Skill

SEMESTER 4

- Medical genetics
- Reproductive Endocrinology
- Basic Techniques of IVF Lab and Culture Media
- Bioanalytical Techniques & Instrumentation
- Developmental Biology
- Communicative English-IV

SEMESTER 5

- Andrology Tools &Techniques
- Nutrition of infertility treatment
- Diagnostic Molecular Genetics & DNA Technology
- IPR Biosafety & Bioinformatics
- Internship

SEMESTER 6

- Male, Female Infertility& Treatment
- Assisted Reproductive Technology & Instrument/equipment of laboratory
- Reproductive Hormones & IVF Protocols
- Nanobiotechnology
- Research Methodology & Biostatistics

SEMESTER 7

- Basics of IUI, IVF & ICSI
- Genetic Counselling
- Infertility & Assisted Conception
- Quality Management & Ethics in ART
- Immunology

SEMESTER 8

- Advanced techniques Embryology (cryobiology & micromanipulator)
- Industrial Regulatory Affairs and QA
- Dissertation/Thesis (Research)

ADMISSION HELPLINE:

+91 9815692195
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Ms. Nancy Soni
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+91 9354735217

Ms. Arnika Singh
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+91 8639388634

DEPOSIT COURSE FEE:

BAHRA UUNIVERSITY and ITHS ESCROW ACCOUNT
Account No.: 1934102900000098
IFSC: PUNB0193410

FOR PAYMENT SCAN QR CODE

UPI ID: 9888420001m7@pnb

DOCUMENTS REQUIRED FOR ADMISSION

- HSC Certificate and Mark sheet.
- +2 Certificate and Mark sheet.
- Graduation All Certificates and Mark sheets.
- College Leaving Certificate
- Migration Certificate in case of student migrating from other university.
- Provisional Certificate
- Recent passport size colour photographs duly attested by a Gazetted Officer (5 copies).
- Caste/Tribe certificate (for SC/ST candidate)/Physically Handicapped certificate.
- Passport (for International Students)



First Batch (2024-2025) of BU-ITHS
Dept. of Clinical Embryology, Bahra University, Shimla Hills

CONTACT US

DEPARTMENT OF CLINICAL EMBRYOLOGY
Bahra University, Shimla Shills, Waknaghat,
Dist. Sonal, Himachal Pradesh, India
(Under the aegis of ITHS & EMBRYOGENESIS)

www.translationalhealthscience.in / www.embryogenesis.in / www.bahrauniversity.edu.in