Our Research Fellowship and training opportunities in human reproduction and infertility represent one of the most active and state-of-the-art programs in the United States.
Fellowship Mission

The overall mission of our fellowship is to train each person to become not only a successful independent researcher but also, through our unique mentorship approach, become a superior professional.

Goals

At the end of the fellowship term, candidates will have:

1. Demonstrated a profound understanding of human infertility (male and/or female)
2. Participated in clinical and basic science research
3. Learned how to design and execute novel scientific research
4. Learned the essentials of scientific writing, including literature review and analysis
5. Developed an understanding of basic biostatistics, including skills in patient chart review, data collection, data entry, and organization
6. Published research findings in peer-reviewed scientific journals
7. Developed superior communication skills pertaining to scientific presentation and discussion
8. Become familiar with the necessary certification for conducting research on human subjects (IRB/HIPPA)
9. Learned how to write a scientific research proposal for funding

Testimonials from past Research Fellows:

“Athe lab at CRM was like my second home where every single moment spent is like a golden memory. Once a member of CRM, always a member of CRM”. Any fellow who joins the CRM develops an eternal bond with the department. The huge amount of work I’ve learnt here is an invaluable asset for all times to come. Thank you CRM for believing in my capabilities and letting me accomplish all my dreams. I’m going back home successful and in flying colors with a wide smile on my face.”

Arozia Moazzam, MD, PhD | 2010 – 11

“This program helped me interact with many experts in the field of ART from around the world. My stay at the Cleveland Clinic helped me in obtaining the position of Scientific Director of a leading IVF program.”

Alex C. Varghese, PhD | 2007 – 08

“I sincerely believe that the Center for Reproductive Medicine at the Cleveland Clinic helped me accomplish my short-term and long-term goals. I would highly recommend this program for anyone who has a desire to learn and become successful in the world of academic medicine.”

Deepinder Goyal, MD | 2006 – 2007
Who can apply?

Medical graduates, residents, physicians, and scientists interested in conducting cutting-edge basic science and clinical research in the field of Reproductive Medicine can apply to our program. Applicants are selected on a competitive basis from a pool of candidates from around the world. Once approved, the applicant is appointed as a Research Fellow through the Cleveland Clinic’s Graduate Medical Education Program.

How to apply

Please send the following information:

- Up-to-date Curriculum Vitae
- 3 recent letters of recommendation by your professors, chairman, or person who have first-hand knowledge of your work
- A color passport picture and a copy of the passport
- Address, telephone number (mobile, home, and office for possible personal interview)
- The date when you can begin the fellowship
- The names, dates and places of birth of all family members who will accompany you. Inform us if they need a visa to enter the United States. (Foreign applicants only)

Testimonial from past Research Fellows:

“I was impressed by the systematic environment in the laboratory. Although I was unfamiliar with bench research at first, I was soon able to focus on my project without hesitation... The experiences in the lab gave me a strong belief that if I had an idea, I could make anything possible in that setting”

Won Jun Choi, MD, PhD | 2004 – 05

“The program inculcates a great deal of ability to do hard work, punctuality, sincerity, art of communication with professionals, feeling of responsibility and aptitude to work as team-member in fellows. The fellows will learn how to do multiple tasks simultaneously and efficiently”

Shyam Allamaneni, MD | 2003 – 04

“I was extremely fortunate to work with renowned experts in the field of Reproductive Medicine from the United States, Germany, and the U.K. as a part of their collaboration with the Center for Reproductive Medicine. The innovative research that we produced remains a cornerstone in the areas of sperm sorting and sperm genomic integrity. I was able to publish more than thirty articles in high-impact Reproductive Medicine Journals as well as book chapters. In addition, I was provided with the opportunity to attend several international conferences during which I presented more than sixty oral and poster presentations.”

Tamer Said, MD, PhD | 2002 – 06
Research & Training Methods

1. Hands-on training in relevant laboratory techniques
2. Personal mentorship
3. On-site and online courses
4. Literature review tools

Recent Text Books Edited by CRM Staff

- Male Infertility: Problems and Solutions

- Sperm Chromatin: Biological and Clinical Applications in Male Infertility and Assisted Reproduction

- Fertility Preservation: Emerging Technologies and Clinical Applications

- Human Assisted Reproductive Technology: Future Trends in Laboratory & Clinical Practice
  Editors: David Gardner, Botros Rizk & Tommaso Falcone, Cambridge University Press, 2011

Faculty

- Ashok Agarwal, PhD, HCLD
  Director, Center for Reproductive Medicine
  Professor, Lerner College of Medicine

- Rakesh Sharma, PhD
  Research Coordinator
  Center for Reproductive Medicine Staff, Glickman Urological Institute

- Sajal Gupta, MD
  Asst. Research Coordinator
  Center for Reproductive Medicine Staff, Glickman Urological Institute

- Edmund Sabanegh, MD
  Chairman, Department of Urology
  Head Section of Male Infertility
  Professor, Lerner College of Medicine

- Tommaso Falcone, MD
  Chairman, OB-GYN & Women’s Health Institute
  Professor, Lerner College of Medicine

Other Important Information

- All appointments for research training are for a minimum of 1 year and there is no financial support.
- Candidates must have independent funds before being considered for an appointment. Examples are: private or government scholarship to support living expenses in the United States.
- Research appointments do not result in the award of a degree (MSc, PhD, or MD); successful completion of training results in the award of a Certificate of Research Training from the Center for Reproductive Medicine (CRM).
- Candidates registered with their parent institution for an advanced degree, such as Master’s, PhD, or MD, can select the Cleveland Clinic for their research studies requirements. Research findings, once completed in our Center, can be submitted towards fulfillment of a degree from the candidate’s own institutions.
- Research Fellows are encouraged to publish their findings in American and European peer-reviewed journals.

Testimonials from past Research Fellows

“My memories of the Cleveland Clinic are of being pushed to work harder and to never accept mediocre quality of work. This program teaches one to set high goals, and to become better at everything one does.”

Fabio Pasqualotto, MD | 1998 – 99

“The training that I received at your Program has made a profound impact on my professional career. My achievements in the field of male infertility and andrology have to be credited to the opportunity of being a Fellow of the CCF Reproductive Center. During the period of my fellowship at the CCF, I was able to learn several andrology techniques, conduct research experiments, and interact with my peers. It is worth mentioning that I wrote several papers from my research work, and was able to get all of them (total 9) published in peer-reviewed journals. I truly believe that this is the best research fellowship program in reproductive medicine currently available both in the United States and abroad. The program not only met but exceeded its goals in every single aspect. I was honored by the opportunity to be enrolled in this program. It was a wonderful professional and personal experience for life.”

Sandro Esteves, MD, PhD | 1995 – 96
**Research Overview**

**Male Infertility**

One of the major goals of our Center is to better understand the causes of male infertility and to design studies aimed at improving semen quality. We hope this line of research will eventually result in strategies that will enable us to use the healthiest spermatozoa for fertilization to improve the chances of pregnancy.

Along these objectives, we are currently involved in projects evaluating oxidative stress-induced nuclear DNA damage and its effects on sperm quality and pregnancy outcome. Studies designed to understand how free radicals cause DNA damage and the possible methods to counteract them are currently being conducted. We are also currently evaluating the role of nutritional supplements in reducing oxidative stress in infertile men and increasing the number of successful pregnancies. Furthermore, the effects of lifestyle choices on male infertility, such as smoking and cell phone usage, are being evaluated in laboratory studies. To learn more about our male infertility research [click here](#).

**Female Infertility**

The focus of our research in the area of female infertility is to understand the etiology of endometriosis, both superficial and deep, and study the mechanisms associated with infertility. A current project examines the role of oxidative stress and infertility associated with endometriosis. In addition, new models are being investigated to develop techniques to optimize cryopreservation of ovaries and study their fertilizing potential. We are examining ischemia-related follicular loss utilizing microvascular anastomosis for long-term survival and fertilizing potential using sheep as the study model. Also, new innovative methods for tissue re-engineering and enrichment of the ovarian grafts are currently being pursued to improve post-transplantation ovarian graft viability and functionality.

Another area of interest is the vitrification of embryos, blastocysts, and isolated blastomeres in conjunction with invasive and noninvasive techniques of freezing. The effect of blastocyst vitrification on DNA damage is being examined. For additional information on our female infertility research [click here](#).

**Scientific Publications**

Our researchers and faculty have published numerous articles in reputed scientific journals, including over 500 peer-reviewed original articles and reviews, and more than 100 chapters in specialized medical books. They have edited over two dozen textbooks pertaining to human reproduction and infertility. In addition, we have presented over 750 research papers at national and international meetings. Our faculty are members of editorial boards of esteemed medical journals such as *Fertility Sterility, Urology, and Obstetrics & Gynecology*. To learn more and view our publications [click here](#).

**Research Collaborators & International Faculty**

The Center for Reproductive Medicine has collaborative relationships with many highly esteemed scientists and clinicians from over 14 countries. Some of the renowned collaborators include:

- **Nabil Aziz**
  MB, ChB, FRCOG, MD
  United Kingdom

- **Sandro Esteves**
  MD, PhD
  Brazil

- **Diana Vaamonde**
  PhD
  Spain

- **Stefan du Plessis**
  PhD, MBA
  South Africa

- **Rajender Singh**
  PhD
  India

- **John Aitken**
  PhD, ScD
  Australia

- **Sijo Parekattil**
  MD
  Orlando, FL

- **Juan Alvarez**
  MD, PhD
  Spain

- **Peter Nagy**
  MD, PhD
  Atlanta, GA

- **Botros Rizk**
  MD, PhD
  Mobile, AL

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Research Fellowship

Updated on Dec. 2011

5 | Cleveland Clinic Center for Reproductive Medicine
Center for Reproductive Medicine

The Cleveland Clinic Center for Reproductive Medicine was established in 1993. The Center is dedicated to its mission of cutting edge disease oriented research, physician education and patient care.

The Center for Reproductive Medicine has an international reputation for excellence in innovative research in human fertility and is dedicated to disseminating its results. Research papers from the Center’s faculty are selected regularly for publication in distinguished specialty medical journals.

The Center’s website has been ranked #1 for research in reproductive medicine and andrology since 2001 by the top five international search engines, including Google and Altavista with over 750,000 visitors. More than 200 physicians and scientists from over 40 countries have received their training at the Center for Reproductive Medicine in the past 19 years. Also, more than 100 pre-med and medical students have participated in research internships with the center.

Facilities

Research and Clinical Laboratories occupy over 2500 square feet of workspace with state-of-the-art instruments and facilities for advanced research in the pathophysiology of male and female reproductive dysfunction. Instruments include: computer assisted semen analyzers, luminometer for oxidative stress measurements, equipment for western blot, culture room equipped with a sterile hood, several incubators, microscopes, a Narishige and RI micromanipulator fitted on an inverted phase-contrast microscope, spectrophotometers, ELISA plate reader, centrifuges, liquid nitrogen storage tanks, programmable freezers, and cold room. The center has ready access to over a dozen specialized core laboratories within the Cleveland Clinic Research Institute. These include: molecular biotechnology, flow cytometry, gene expression, and transgenic/knockout facilities. Click here for more information on these core laboratories.

Take a virtual tour of the center’s labs.

The office space for fellows is equipped with over 2 dozen computers with laser printers, scanners, copiers, and all the necessary software programs. All computers in the center are connected to the Cleveland Clinic’s network system that provides direct access to most online journals related to the field of medicine, urology, reproductive medicine, andrology, etc. A large collection of scientific journals, electronic journals/books, and other databases are also available through our newly modernized Cleveland Clinic Alumni Library. A team of statisticians working in the Department of Quantitative Health Sciences provide research support to the Fellows, and the Arts and Graphics Department supports the preparation of research posters and lecture slides for presentations at national meetings.

About Cleveland Clinic

Located in Cleveland, Ohio, Cleveland Clinic is a nonprofit, multispecialty academic medical center that integrates clinical and hospital care with research and education. Founded in 1921 by four renowned physicians with a vision of providing outstanding patient care based upon the principles of cooperation, compassion and innovation, it is the second largest group practice in the world with 2,000 physicians and scientists practicing and researching in more than 120 medical specialities with more than 1,300 beds. In addition to the main hospital located near Cleveland’s historic University Circle, the Cleveland Clinic operates nine regional hospitals, a children’s hospital, and 17 family health centers in Ohio as well as hospitals in Florida, Las Vegas, Canada, and Dubai, employing more than 40,000 individuals and providing global world-class medical care. Last year alone, 3.7 million patients from over 80 countries and all 50 states received their care at Cleveland Clinic.

The main hospital campus, located near downtown Cleveland, occupies 180 acres and 50 buildings. It includes a hospital, an outpatient clinic, a children’s hospital, cancer institute, eye institute, research institute, a medical school and supporting labs and facilities. To learn more, visit the Cleveland Clinic home page.