Reproductive Endocrinology & Infertility Fellowship Program

ECFMG PROGRAM Description

Program Demographics

**Host Institution:** UT Southwestern Medical Center  
**Program Specialty/Subspecialty:** Obstetrics & Gynecology / Reproductive Endocrinology & Infertility  
**Program Mailing Address:** 5323 Harry Hines Blvd  
Dallas, TX  75390-9032  
**Program Phone Number:** (214) 648-4747  
**Program Fax Number:** (214) 648-8066  
**Program E-Mail:** reiadmin@utsouthwestern.edu; bruce.carr@utsouthwestern.edu  
**Program Director:** Bruce R. Carr, M.D.

Introduction

**History:** Since inception in 1974, we have trained over 60 fellows  
**Duration:** 3 years  
**Prerequisite Training/Selection Criteria:** Candidates must have completed an American Board of Obstetrics and Gynecology approved residency. Candidates are interviewed and selected by REI faculty members and current fellows.

**REI Fellowship Training:** Reproductive Endocrinology and Infertility (REI) is a subspecialty within Obstetrics and Gynecology (Ob/Gyn) which requires an additional 3 years subspecialty training. During that period of time, trainees focus on mastering the diagnosis and treatment of endocrine disorders related to the human reproductive system. Additionally, REIs focus on the diagnosis and treatment of infertility utilizing an array of assisted reproductive technologies.

REI physicians are referral sources for disorders of steroidogenesis, sexual development, puberty, menstruation, hirsutism/PCOS, menopause, hormone replacement therapy, thyroid/adrenal function and reproduction, recurrent pregnancy loss, and male/female fertility, among other things. Many also specialize in the genetics of reproduction and inherited disorders, laboratory science, and molecular biology.

**REI Educational Resources for Ob/Gyn Residents**  
Understanding reproductive biology is imperative for all obstetrician/gynecologists. A firm grasp of the fundamentals for many topics under the purview of REIs will ensure a thoughtful approach to many disorders in general gynecology and in the
initial work-up and treatment of the infertile couple. The following may serve as educational resources during residency:

1. Reproductive Endocrinology and Infertility PROLOG. After studying this unit in the PROLOG series, you should be able to establish differential diagnoses and screen with appropriate diagnostic tests for specific conditions in gynecology and infertility.

2. ASRM e-Learn. This resource includes approximately 1 hour of lectures on topics including Infertility Evaluation, Precocious Puberty, Developmental Disorders, Delayed Puberty, Amenorrhea, Hirsutism, Pediatric Gynecology, PCOS, and many more.

3. ACOG Practice Bulletin is another excellent source for information about reproductive, medical and pediatric endocrinology. Leaders in the field of REI have written many of the available chapters.

If you are seeking a career in Reproductive Endocrinology and Infertility, basic sciences, or clinical research, you will find this training program will go a long way toward meeting your particular needs and interests. All fellowships include 18 months of clinical education and 18 months of research education and experience.

Program Certifications: Accreditation Council for Graduate Medical Education (ACGME)

Resources

Teaching Staff: Bruce Carr, M.D. (Fellowship Director), Orhan Bukulmez, M.D. (Division Chief, and Medical Director), Jianming Li, Ph.D., Karen Bradshaw, M.D., Patricia Jimenez, M.D., Karla Saner, Ph.D., Ellen Wilson, M.D., Kevin Doody, M.D., Ann Word, M.D., Samir Babayev, M.D.

Facilities: Fertility and Advanced Reproductive Medicine - private University out-patient care center for patient referrals to the faculty; William P. Clements Jr. University Hospital - which offer state of the art facilities for operative laparoscopy, hysteroscopy, laser surgery, and microsurgery; Parkland Memorial Hospital; Children’s Medical Center; Lowe Foundation Center for Women’s Preventive Health Care; Aston Ambulatory Care Center for clinical research; and Center for Advanced Reproduction.

Educational Program – Basic Curriculum

Basic Curriculum: The three major goals of the Postgraduate Training Program for physician fellows in the Division of Reproductive Endocrinology & Infertility of the Department of Obstetrics and Gynecology and in the Cecil H. and Ida Green Center for Reproductive Biology Sciences at the University of Texas Southwestern Medical Center include: 1) Teaching: Fellows, residents, and medical students; 2) Research: Clinical and basic science and 3) Patient Care: Private patients (Fertility & Advanced Reproductive Medicine Center, Center for Assisted Reproduction, William P. Clements Jr. University Hospital) and Parkland Memorial Hospital.

Clinical

The clinical experience for Fellows is designed to be comprehensive for both surgical and medical aspects of Reproductive Endocrinology and Infertility. Clinical services are provided at a variety of locations including:

1) Parkland Memorial Hospital
2) Fertility and Advanced Reproductive Medicine Center - private university outpatient care center for patients referred to the faculty.

4) Center for Assisted Reproduction - the Assisted Reproductive Technology Program, oocyte retrievals, HSG, and tubal anastomosis are performed in this Center.

Fellows also serve as consultants to the Departments of Pediatrics, Internal Medicine, Urology, and General Surgery for problems that involve endocrinopathies in women. Fellows, residents and Division faculty discuss consultations.

Along with managing medical and surgical aspects of a wide variety of clinical problems, Fellows will also participate in the Assisted Reproductive Technology (ART) Program (i.e. the In Vitro Fertilization- (IVF)). Fellows will become experienced in transvaginal ultrasonography, sonohysterography, office hysteroscopy, ovarian-controlled hyperstimulation protocols, transvaginal ultrasound-guided follicular aspiration for oocyte retrieval, intrauterine insemination (an embryo transfer technique) and laparoscopic tubal cannulation (as for GIFT, ZIFT, etc.). IVF laboratories and the Andrology laboratories are located in the Medical School within the Division. Fellows will have the opportunity for in-depth exposure to the workings of each of these labs. Fellows on the IVF service also will participate in weekly IVF meetings to discuss individual patients and new topics of ART.

Research

Basic and Clinical The faculty members of the Departments of Obstetrics and Gynecology, Biochemistry, Physiology, Internal Medicine, Pediatrics, and Urology are involved in a multi-disciplinary training program in reproductive biology. The training program is designed to provide research experience for physicians as well as basic scientists who plan a career in academic medicine.

The Fellows have the opportunity to be involved in one of many laboratory and clinical research projects and one is encouraged to develop his or her own research project in collaboration with members of the Reproductive Endocrinology & Infertility Division, or other sections involved in basic research in reproductive medicine. The areas of active, ongoing reproductive endocrine research include neuroendocrinology, steroid hormone metabolism, hormone mechanisms of action, molecular endocrinology and genetics, myometrium and leiomyomas, development of granulosa and thecal cell lines, and gamete research.

Clinical research projects in which the Fellows are also encouraged to participate include the development of and participation in protocols to study various methods of treatment in infertility such as AIH, IUI, IVF, ovulation induction, treatment of androgen excess, endometriosis, adhesion prevention, menopause, and others. In addition, the Fellows are able to study interesting endocrine patients with regard to clinical aspects and to extend these studies to the basic sciences in depth in the laboratory.

The fellows are introduced to medical student and resident teaching during the Program, which includes lectures, clinical rounds, and surgical training. Two residents (one fourth year and one third year) as well as one to two senior medical students are assigned monthly to the Division of Reproductive Endocrinology Clinical Service. They attend the weekly out-patient clinic (1 day per week) and surgery (1 day per month) at Parkland Memorial Hospital. The fellow assigned to the service sees patients with faculty on the private service and reviews all assisted reproductive technology (ART) on a daily basis. Surgery is performed on private Reproductive
Endocrinology/Infertility cases one or two days a week at William P. Clements Jr. University Hospital, or Outpatient Surgery Center. IVF cases are also performed at the Center for Assisted Reproduction. There is a basic reproductive medicine course for them as well as an Advanced Surgical Workshop that includes laparoscopy and hysteroscopy training. Microsurgical laboratory assignments, laparoscopic/hysteroscopic models, DVD videotapes of surgical procedures and textbook assignments during the month are also available to the fellows and residents.

**Procedural requirements**

Fellows and faculty staff the Parkland Gynecologic Endocrine Service. Faculty staffing this service are board certified or active candidate, Reproductive Endocrinologists who are also full-time faculty at UT Southwestern Medical Center. Fellows also will be accompanied by residents and medical students assigned to this service. Typically, Fellows are required to understand a wide variety of problems including amenorrhea, dysfunctional uterine bleeding, genital tract anomalies, ovulation induction, estrogen/progesterone replacement, hypothalamic-pituitary dysfunction, infertility from pelvic factors, etc. Fellows will be expected to manage both medical and surgical aspects of care for patients from this service. Laboratory training in laparoscopy and hysteroscopy as well as microsurgery are both available and expected.

**Didactic components**

The three-year Fellowship will include one fellow per year in Reproductive Endocrinology. Opportunities for teaching and academic interaction include:

A. Weekly Fellows and Residents Infertility/Endocrine Case Presentations and Lectures
B. Weekly Fellows Conference (M.D.s and Ph.D.s) of Current Research Updates
C. Weekly Medicine Endocrine Grand Rounds
D. Weekly Division/IVF Meeting
E. Monthly Reproductive Endocrinology/Gynecology Grand Rounds
F. Monthly Reproductive Endocrinology Journal Club
G. Monthly lecture based on the Guide to Learning Reproductive Endocrinology (Board Preparations)
H. Computer Teaching: Graphic and Slide Making, Word Processing and Statistics
I. Textbooks Provided: Reproductive Medicine topics to be determined

**Progression in responsibilities by PGY Level**

Progress in responsibilities over the 3 years is in relation to the year and experience of the fellow. The third year Fellow sets all the schedules and conferences; all duty charts and follow-up clinics.

**Evaluation**

Although the fellowship has two formally scheduled evaluations for academic year where the faculty provides feedback regarding the fellows’ performances, the Program Director meets with the Fellows on an ongoing daily to ensure they are progressing and on track with targeted goals.