

Fellowship in Endocrinology, Diabetes, & Metabolism
Overview of Curriculum
Ohio State University Wexner Medical Center

1. Clinical Experience

- a. In FY18, we will convert our schedules based on calendar months to 4 week blocks in order to align with Internal Medicine schedules. Shown below is schedule based on calendar months.

a) Fellow's Continuity Clinic: 1 half day per week

Fellow's continuity clinic with faculty supervision throughout first and second year. Fellows are the primary manager of these patients under faculty supervision.

F1: August-June: 1 new, 2 hospital follow-up, and 3 return

F2: July-August: 1 new, 2 hospital follow-up, and 3 return

Sept-March: 3 new and 5 follow-up

April-June: 8 follow-up

Pre-clinic conference (½ hr) before clinic to discuss interesting cases

b) Attending Outpatient Clinics:

- F1: September-June: three ½ day clinics/week when not doing inpatient endocrine consult service on a rotating schedule to include clinics in specialized areas: Adrenal, Bone/Mineral, Diabetes, Lipids, Obesity, Pituitary, Thyroid; and dedicated experience in Fine Needle Aspiration Biopsy. None during on-service months.
- F2: July-June: one ½ day clinic per week with research mentor.
- F2: One month of Pediatric Endocrinology clinic at Nationwide Children's Hospital (three ½ day clinics per week) is required.
- F2: One month of Reproductive Endocrinology clinic with Department of Reproductive Endocrinology, Polycystic Ovary Syndrome Clinic, Menopausal Hormone Therapy Clinic in Center for Women's Health (three ½ day clinics per week).
- F2: Elective clinical rotations available include Advanced Thyroid Cancer & Neuroendocrine Tumors, Pregnancy-related Endocrinology & Diabetes.

c) Inpatient Endocrinology Consult Service: 5 months in F1 and 1 months in F2

- F1: September-June
- F2: July-August
- Each month of consult service will be covered by a fellow. Fellow are responsible for coordinating initial assessment of inpatient consultations and following progress through the hospital course regarding diagnosis and management. Fellow also responsible for complementing instruction for house staff and medical students also on rotation. Staffed by faculty daily.

d) Inpatient Diabetes Consult Service: ½ month in summer of F1

- Fellows have a foundational experience in managing inpatient diabetes in the Ross Heart and University Hospitals. Fellows work closely with nurse practitioners and round with faculty daily.

e) Procedures (Required)

- DXA interpretation: Fellows spend time learning how to interpret DXA scans at Continuity Clinic, during a monthly fellow's conference devoted to Metabolic Bone and mineral disorders, outpatient attending Bone Clinic, and during fellow's Pre-clinic conference

- Thyroid ultrasound and Fine Needle Aspiration Biopsy: We introduce these techniques during a tutorial in the summer, followed by dedicated time spent in weekly Thyroid FNA Clinic, and continued US interpretation during fellow's pre-clinic conference.
- Continuous glucose monitoring & insulin pump downloads: New fellows are introduced to this during focused ½ month inpatient Diabetes Consult during summer of F1, followed by focused experience in Diabetes Technology Clinic, fellow's pre-clinic conference to gain expertise in problem-solving this technology,
- ¹³¹I administration. Fellows are present with Endocrine Division faculty who are Authorized Users of radioactive iodine for administration of ¹³¹I in the treatment of hyperthyroidism and thyroid cancer.
- Fellows maintain a log of all procedures

Procedures (Optional)

- F2: In the spring of the second year, fellows are nominated to attend "Endocrine University", a Clinical Procedure Certification Course offered by the Mayo Clinic, a week-long course toward achieving certification in CGM/insulin pump interpretation, DXA scan interpretation, and Thyroid ultrasound and FNA biopsy,
- F2: Opportunity to participate in other certification courses at fellow's personal expense. This can include the AACE Nuclear Medicine course to fulfill the NRC requirements for training in radiation biology, physics and safety in the use of radioactive iodine.

f) Weekly Conferences

- Weekly conferences are held on Wednesday 7:30am with the entire Endocrinology Division using the following formats.
 - Clinical Case Conference. Fellows present interesting cases typically from their inpatient consult service rotation. Fellows research the medical literature with focus on the specific areas related to diagnosis, management and appropriate educational updates that made the cases interesting.
 - Journal Club. Fellows work with an assigned attending to present a recent journal article and critically review.
- Power point presentations are kept on the Division shared drive and available for the Fellows for future review and study.

g) Monthly Conference

- Each of these subspecialty conferences and are held once a month with a faculty having specific interest in these areas.
 - Adrenal
 - Bone/DXA
 - Thyroid, Radioiodine Therapy, Cytology
 - Pituitary Multidisciplinary conference: endocrinology, neurosurgery, radiology, and pathology,
- Quality Improvement projects.

h) Optional Clinical Educational Opportunities

- Once a month review of Board Review Questions to prepare for Subspecialty Certification. Although optional, these are well-attended.
- Opportunities for additional specialty training are available through the Endocrine Fellows Foundation, NIH, AACE, NLA, and other organizations.
- Participation in Divisional, Regional and National CME meetings is desirable and will be encouraged.

- Participation in all CME programs provided by the Division is strongly supported, including Endocrinology Update, Diabetes Dialogue, Thyroid Cancer Symposium, Metabolic Bone Disease Update.

2. Research

a) Endocrinology research project

- Research is a primary goal of the OSU Endocrinology Fellowship Program to train academic leaders for tomorrow. Fellows actively explore potential research opportunities with faculty on research initiatives. Training will incorporate protocol development/experimental design; research techniques; data analysis; presentation skills and scientific writing. Requirements and timeline for completion will include:
 - Prior to fellowship start: identify project areas of interest/back ground reading
 - July-September Year 1: choosing a mentor: Time will be provided in the first two months for new fellows to meet with potential research mentors and complete CITI training. Mentors can be outside the Division and approval by the program director required.
 - October-December Year 1: project development
 - January Year 1: present proposed protocol at research conference is required within the first 6 months of fellowship. The goal of this exercise is to develop presentation skills and to utilize faculty expertise to feedback on proposed project.
 - January-June: IRB submission (if appropriate), learn techniques
 - Year 1: prepare and submit grant for funding
 - Year 2: Submit and present data at OSU Fellow Research Symposium (required in Year 2)
 - Submit abstract(s) to regional/national meetings and present data if accepted
 - Prepare and submit manuscript

b) Endocrinology research conference (required)

- Annual presentation of study progress. First year fellow discusses research proposal at mid-year. Second year fellow presents a summary presentation at end of fellowship.
- All fellows are also required to attend at least 75% of endocrinology research conferences where other faculty and guest speakers will present basic and clinical endocrine research.

c) National Meetings

- Each fellow will be expected to submit an abstract for at least one national meeting by Year 2 and if accepted, to prepare and present the data at that venue.
- Fellows will also be encouraged to attend regional/national scientific meetings to enhance networking and scientific exchange.

3. Education/Teaching Experience

- House Staff and Medical students rotating on the Inpatient Endocrine Consult Service
- Small group tutorials for 1st and 2nd year medical students (required Year 1 and 2)
- Present at CME programs given by Division (optional in Year 2)

4. ORGANIZATIONAL STRUCTURE OF FELLOWSHIP

- Fellowship Director: Steven Ing, MD, MSCE
- Associate Fellowship Director: Benjamin O'Donnell, MD
- Division Director: Matthew Ringel, MD
- Fellowship Program Coordinator: Dianne Stansifer

5. SUMMARY OF REQUIRED ELEMENTS OF FELLOWSHIP

- Completion of minimum of 24 months training in Endocrinology, Diabetes and Metabolism ACGME-certified training program
- Average of 2 rotating half day endocrine clinics per month for 24 months in which 1 half-day continuity clinic per month for at least 20 months
- 1 month of pediatric endocrinology
- 1 month of reproductive endocrinology
- Presentations at Journal Club and Endocrine Case Conference about 6-8 times per year
- A minimum of one didactic course on biostatistics or study design (or other “approved” course germane to research initiative)
- Completion of a research study as evidenced by:
 - protocol development/IRB submission
 - research conferences covering study design
 - grant preparation and submission
 - abstract submission
 - presentation of results at Research Conference and OSU Fellows Research Symposium
 - preparation of final manuscript for submission
- Participation in teaching activities as evidenced by:
 - small group tutorials for medical students during their endocrinology block