



Division of Endocrinology, Metabolism & Lipid Research
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Rev. 8/2016



**Fellowship in Endocrinology,
Diabetes & Metabolism**



Division of Endocrinology, Metabolism & Lipid Research

MISSION

The mission of the Division of Endocrinology, Metabolism and Lipid Research is to conduct innovative research, to teach research and clinical medicine, and to provide exemplary care to patients with endocrine disorders. The Division provides unique patient care services to inpatients at Barnes-Jewish Hospital and to outpatients from the St. Louis community and beyond.

Washington University's Division of Endocrinology, Metabolism, and Lipid Research routinely ranks among the premier academic teaching, clinical, and research programs in the country. **U.S. News & World Report** touts its clinical services among the top programs nationwide, and NIH has continuously supported its competitive research and training grants for many years.

Endocrinologists in the division diagnose and treat patients with complex endocrine and metabolic disorders, including diabetes (Type 1, Type 2, monogenic diabetes and diabetes associated with organ transplantation and other conditions), hyper-lipidemia (severe hypercholesterolemia, including many families with familial hypercholesterolemia, hypertriglyceridemia and other rare types of hyperlipidemia), thyroid disease, including thyroid cancer, metabolic bone disorders, multiple endocrine neoplasia syndromes, pituitary diseases and other neuroendocrine disorders, adrenal disease (such as pheochromocytomas, adrenal insufficiency, and adrenal cancers), metabolic syndrome, hirsutism, polycystic ovarian syndrome and male hypogonadism. **The division offers patients the very latest in diagnostic and treatment options.** For example, Washington University is the only site in our region using outpatient LDL apheresis to filter high levels of cholesterol from the blood and lower LDL by as much as 50 percent in patients unresponsive to conventional therapies.

Endocrinologists at Washington University play a



EDUCATIONAL GOALS

The primary goal of the Washington University clinical fellowship program in endocrinology, diabetes and metabolism is to train academically oriented physicians in our discipline. While many of the graduates of the program will become primarily bench-oriented pre-clinical scientists, others will become patient-oriented clinical scientists and some will become clinical consultants/educators. It is our objective to provide each fellow with substantive experiences in biomedical research – bench-oriented, patient-oriented, or both, and in clinical endocrinology. The high quality training and clinical experience will prepare the fellow to function as an expert consultant in endocrinology and fulfill all ACGME and ABIM requirements.

Current Fellows

2016-2017



1st Year Fellows

Cecilia Davis, MD

Guoyu Ling, MD, PhD

Maamoun Salam, MD

Sobia Sadiq, MD

2nd Year Fellows

Jacqueline Cartier, MD

Ann Malbas, MD

Brian Muegge, MD, PhD

Schola Nwachukwu, MD

3rd Year Fellow

Kevin Bauerle, MD, PhD

"Our community of fellows, faculty, and staff is happy, supportive, and committed to making



Training Faculty & Clinical & Research Foci

- **Ana Maria Arbelaez, MD**
Glucose counterregulation and hypoglycemia
- **Thomas J. Baranski, MD, PhD**
G-proteins, pathogenesis of diabetes
- **Carlos Bernal-Mizrachi, MD**
Vitamin D and diabetes
- **Kim A. Carmichael, MD, FACP**
Optimizing endocrine care
- **Roberto Civitelli, MD**
Intercellular signaling in bone
- **Amy Clark, DO**
Pediatric endocrinology
- **William E. Clutter, MD**
Endocrinopathy management
- **Paulina Cruz Bravo, MD**
Expanding diabetes and endocrine care
- **Julia Dunn, MD**
General Endocrinology at VA
- **Anne C. Goldberg, MD, FACP, FAHA**
Novel agents for dyslipidemias
- **Charles A. Harris, MD, PhD**
Glucocorticoids in obesity and diabetes
- **Cynthia Herrick, MD**
Expanding diabetes and endocrine care
- **Andrea Granados, MD**
Pediatric endocrinology
- **Abby Solomon Hollander, MD**
Growth hormone and diabetes
- **Jing Hughes, MD, PhD**
Islet cell interactions and diabetes modulation
- **Paul Hruz, MD, PhD**
Glucose transport
- **Marina Litvin, MD**
Expanding diabetes and endocrine care
- **Irfan J. Lodhi, PhD**
Adipocyte biology and its role in obesity and diabetes
- **Bess A. Marshall, MD**
Carbohydrate metabolism and insulin resistance
- **Janet B. McGill, MD**
Novel agents for diabetes
- **Jeffrey Millman, PhD**
Stem cell technology in treating diabetes
- **Colin Nichols, PhD**
Pancreatic beta cell function and ion channels in diabetes
- **Richard E. Ostlund, MD**
Cholesterol absorption
- **Jennifer Powers, PhD**
Biomarker discovery, assay development, and pharmacogenomics
- **Dominic Reeds, MD**
Nutrition and diabetes care
- **Maria Remedi, PhD**
Altered metabolism and electrical activity in pancreas, muscle and brain
- **Amy Riek, MD**
Vitamin D and cardiometabolic outcomes
- **Clay F. Semenkovich, MD**
Diabetes and lipid metabolism
- **Julie M. Silverstein, MD**
Improving pituitary treatments
- **Jennifer Sprague, MD**
Pediatric endocrinology
- **Karin Sterl, MD**
Expanding diabetes and endocrine care
- **Stephen Stone, MD**
Pediatric endocrinology
- **Garry S. Tobin, MD**
Expanding diabetes care
- **R. Reid Townsend, MD, PhD**

"The department makes a real commitment to our scholarly development. Our faculty are engaged, curious, and compassionate, and they make it their priority to help us

Educational Certification Procedural Requirements

At its April 2013 meeting, the Endocrinology, Diabetes and Metabolism Specialty Board voted to revise the policy regarding procedural requirements for initial certification. Effective since academic year 2015-2016, all fellows are required to achieve competency in the following:

- **Thyroid Ultrasound and Fine Needle Aspiration** – includes recognizing the indication for neck ultrasound, interpreting thyroid imaging, performing thyroid ultrasound, and performing ultrasound-guided fine needle aspiration of thyroid nodules.
- **Insulin Pump Core Therapy** – includes an understanding of the technology, risk and benefits of the delivery system, competency in determining glucose targets and insulin dosing calculations, and demonstrated competency in data interpretation of pump downloads.
- **Continuous Glucose Monitoring** – includes an understanding of the technology and evidence-based guidelines and indications for use, demonstrated competency in interpreting tracings and logbooks, and evaluating patients' current therapy and initiating appropriate changes based on CGM findings.
- **Dual Energy X-ray Absorptiometry (DXA)** – includes an understanding of the clinical indications for

mance and interest in additional research training.

1st Year Rotations

- **Inpatient Endocrine Consult Service** – 2 months
- **Inpatient Diabetes Consult Orientation** – 1 week
- **Inpatient Diabetes Consult Service** – 2 months
- **Outpatient Continuity Clinic** – weekly
- **VA Endocrinology and Metabolism Clinic** – 3 months
- **Bone Health Clinic** – 2 months
- **Lipid Clinic** – 2 months
- **Pituitary Clinic** – 2 months
- **Thyroid Nodule Clinic** – 2 months
- **Pediatric Endocrinology and Metabolism Clinic** – 2 months
- **Diabetic Retinopathy Clinic** – 2 clinic dates
- **Research Training** – continuous through 12 months

Optional 3rd Year

Although a 3rd year of training is not required by the ACGME, the additional year is available given perfor-

Electives

Inpatient experience in nutrition is available as an elective. Outpatient electives include nutrition, high risk pregnancy, obesity, and others depending on the fellow's interest.

2nd Year Rotations

- **Inpatient Endocrine Consult Service** – 1 month
- **Inpatient Diabetes Consult Service** – 1



Conferences, Seminars & Special Projects



Conferences

- **Rounds with Division Chief**- weekly, for those rotating on the Inpatient Consult Service
- **Medicine Grand Rounds**- weekly
- **Clinical Case Conference**- weekly—September through May
- **Metabolism, Obesity and Diabetes (MOD) Seminar**- weekly—September through May
- **Clinical Endocrine Course**- weekly—September through May
- **Bone Case Conference**- weekly
- **Endocrine Oncology Conference**- twice monthly
- **Pituitary Conference**- once monthly—September through May
- **Endocrine Fellowship Summer Training Sessions**- weekly—July & August

Special Seminars & Events

- **Dr. Alexander & Helena Schonfeld Lecture** – Honored Guest Lecturer
- **World Diabetes Day Seminar & Poster Session** – November/Annually; Honored Guest Lecturer
- **Philip E. Cryer Lecture** – Annually; Honored Guest Lecturer
- **Julio V. Santiago Memorial Lecture** – Annually; Honored Guest Lecturer
- **Fellows' Research Presentations & Seminar** – Twice yearly—December/May
- **Kilo Symposium** – Once yearly—November

Special Projects

ACGME requires that all fellows engage in and complete a Quality Assurance/ Quality Initiative Patient Safety Project with results to be presented to faculty and fellows in May of fellowship year 2.

Institutional Resources

Washington University Diabetes Center at Barnes-Jewish Hospital

Founded in July 2006, the Washington University Diabetes Center at Barnes-Jewish Hospital offers a comprehensive and multidisciplinary outpatient and inpatient service for the prevention, diagnosis, treatment, and management of diabetes. Standardized inpatient protocols have been implemented to better manage inpatients, promote faster wound healing, hasten return to wellness, and facilitate faster discharge from the hospital.

Endorsed by the American Diabetes Association as an "Education Recognition Program," the outpatient Diabetes Center provides advanced treatment and specializes in instructing patients.

Patients receive coordinated, comprehensive care from Washington University endocrinologists and specially trained nurses and dietitians, certified by the American Diabetes Association as "diabetic educators." Physicians and staff treat both newly diagnosed and long-term patients with diabetes using a range of comprehensive services in one convenient setting: individualized teaching sessions on controlling diabetes, small group classes with certified educators, and formalized instruction for insulin self-management, carbohydrate counting, and initiating and maintaining insulin pump therapy. Registered dietitians provide nutrition counseling in individual or group sessions. Services also include on-site foot care, computerized 72-hour blood sugar monitoring, and access to clinical trials evaluating new drug therapies for diabetes and lipid disorders.

Career Pathways Post Fellowship Training

Following completion of postdoctoral training, the division offers both informal and structured resources to assist junior faculty with developing careers in academic medicine



"The hospital has an incredible catchment area and you will be exposed to the full breadth and depth of clinical