Fellowship in Endocrinology, Diabetes & Metabolism
MISSION
The mission of the Division of Endocrinology, Metabolism & 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 as the top 10 program 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 leading role in improving patient care through basic and clinical research. Faculty direct clinical studies to evaluate the latest therapies and diagnostic procedures. Basic scientists conduct innovative molecular and translational research with the potential to pave the way for new treatments. Together this diverse faculty provides an outstanding training environment for some of the nation’s best medical students, residents, physicians, and pre- and postdoctoral fellows.

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 fulfills all ACGME and ABIM requirements.

Current Fellows 2019-2020

1st Year Fellows
Samantha Adamson, MD, PhD
Katrina Han, MD
Nicholas Semenkovich, MD, PhD
Jeremiah Stitham, MD, PhD

2nd Year Fellows
Aswathi Kumar, MD
Rebecca J. Morey, MD
Kelley J. Williams, MD
Henry Zelada, MD

3rd Year Fellow
Rong Mei Zhang, MD
(3rd Year Research Fellow)

“Our community of fellows, faculty, and staff is happy, supportive, and committed to making sure that we all succeed and grow in our professional goals.” —Brian Muegge, MD, PhD
Training Faculty & Clinical & Research Faculty

- Rajaa Almourani, MD
- Ana Maria Arbelaez, MD
- G-proteins, pathogens of diabetes
- Carlos Bernal-Mizrachi, MD
- Vitamin D and diabetes
- Kim Carmichael, MD, FACP
- Optimizing endocrine care
- Roberto Civitelli, MD
- Intercellular signaling in bone
- Amy Clark, DO
- Pediatric endocrinology
- Andrea Granados, MD
- Endocrinology
- Cynthia Herrick, MD, FACP
- Endocrinology management
- Paulina Cruz Bravo
- Expanding diabetes care and endocrine care
- Julia Dunn, MD
- Gene and endocrinology at VA
- Anne C. Goldberg, MD, FACP, FAHA
- Novel agents for dyslipidemias
- Charles Harris, MD, PhD
- Glucocorticoids in obesity and diabetes
- Reem Hasan, MD
- Expanding diabetes and endocrine care
- Cynthia Herrick, MD, FACP
- Expanding diabetes care 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
- Sina Jasim, MD, MPH
- Thyroid cancer, PGA disorders, endocrine neoplasia
- Ellen Kim, MD
- Pediatric endocrinology
- Marina Litvin, MD
- Expanding diabetes care and endocrine care
- Irfan 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 Milligan, PhD
- Stem cell technology in treating diabetes
- Brian Muegge, M.D., Ph.D.
- Endocrine cells during injury
- Collin Nichols, PhD
- Pancreatic beta cell function and ion channels in diabetes
- Richard E. Ostlund, MD
- Cholesterol absorption
- Jennifer Power, 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 Rieke, MD
- Vitamin D and cardiometabolic outcomes
- Maamoun Salam, MD
- Expanding diabetes and endocrine care
- Clay F. Semenkovich, MD
- Diabetes and lipid metabolism
- Julie M. Silverstein, MD
- Improving pituitary treatments
- Sudhir Singh, M.D.
- Expanding diabetes and endocrine care
- Jennifer Sprague, MD
- Pediatric endocrinology
- Karin Sterl, MD
- Expanding diabetes and endocrine care
- Stephen Stone, MD
- Pediatric endocrinology
- Michael Thompson, MD, PhD
- Pediatric endocrinology
- Garry S. Tobin, MD
- Expanding diabetes care
- R. Reid Townsend, MD, PhD
- Novel molecular analysis and proteomics
- John W. Turk, MD, PhD
- Phospholipases, diabetes and obesity
- Fumihiko Uramo, MD, PhD
- Insulin biosynthesis and Wolfram syndrome
- Neil H. White, MD, CDE
- Diabetes complications
- Michael P. Whyte, MD
- Inherited disorders of bone

Educational Certification Procedural Requirements

At its April 2013 meeting, the Endocrinology, Diabetes & 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 & 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 evaluating osteoporosis/metabolic bone disease, understanding of the basic science and operating principles of bone densitometry and assessment of fracture risk, reviewing and interpreting scan data and creating DXA reports, and indications and methodologies for longitudinal monitoring.

1st Year Rotations

- Inpatient Diabetes Consult Orientation – 1 week
- Inpatient Diabetes Consult Service – 2 months
- Inpatient Endocrine Consult Service – 2 months
- Outpatient Continuity Clinic – weekly
- VA Endocrinology & Metabolism Clinic – 3 months
- Bone Health Clinic – 2 months
- Lipid Clinic – 2 months
- Pediatric Endocrinology Clinic – 2 months
- Thyroid Clinic – 2 months
- Pediatric Endocrinology & Metabolism Clinic (Type 1 Diabetes, Turner’s Syndrome, Transplant, PCOS, etc.) – 2 months
- Diabetic Retinopathy Clinic – 2 clinic dates
- Research Training – Continuous

Optional 3rd Year

Although a 3rd year of training is not required by the ACGME, an additional year is available given performance and interest in additional research training.

Election

Inpatient experience in nutrition is available as an elective.

Outpatient electives include bone clinic, DEXA, high risk pregnancy, lipids, male infertility, obesity, pediatric neuro- oncology, pediatric transgender, pituitary, radiology, reproductive endocrinology, thyroid nodule/cancer and VA clinic, and other’s depending on the fellow’s interest.

2nd Year Rotations

- Inpatient Endocrine Consult Service – 1 month
- Inpatient Diabetes Consult Service – 1 month
- Outpatient Continuity Clinic – weekly
- Ambulatory Consultation Faculty Clinics – Four 3-month-long rotations
- Thyroid Clinic – 4 months
- Diabetic Retinopathy Clinic – 2 clinic dates
- Research Training – ongoing
- Clinical Pathway Fellows – Minimum of 12 half-day elective clinics
Conferences, Seminars & Special Projects

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

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

Special Projects

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

Academic Portfolio

Each fellow will maintain an electronic compilation clinical requirements (thyroid ultrasound and thyroid biopsy reports, insulin pump downloads, CGM interpretations, and DXA interpretations), certifications (CITI, GCP, others), ethics events attended, presentations, other scholarly activity such as abstracts, posters and manuscripts, and PSQI project report. A WU formatted curriculum vitae will be updated regularly and kept in the academic portfolio.

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 dieticians, 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 dieticians 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 as clinicians, clinical researchers, or basic scientists. Whether seeking an academic career as a faculty clinician and teacher or as an independent investigator, a variety of career pathways are available. The Institute of Clinical and Translational Studies (ICTS) offers a Master’s in Clinical Investigation and mentored research training grants (KL2 Career Development program) to support training after fellowship and to facilitate the transition to junior faculty positions. The Division has a T32 training program that supports postdoctoral research training. Additional individual training grants have supported previous fellows after their endocrinology training (Mentored Patient-Oriented Research Career Development Award, K23, Mentored Clinical Scientist Development Award, K08).

“The hospital has an incredible catchment area and you will be exposed to the full breadth and depth of clinical endocrinology.”
—Brian Muegge, MD, PhD