The Pituitary Center at Barrow Neurological Institute provides comprehensive care to patients with disorders of the pituitary, hypothalamus, and skull base. Established in 2007, the Barrow Pituitary Center is comprised of an experienced multidisciplinary team of doctors and nurses who combine medical and surgical expertise to offer patients with pituitary diseases the most advanced level of care. Physicians at the Barrow Pituitary Center have treated over 2,500 patients with pituitary and skull-based tumors over the past 20 years. The team emphasizes state-of-the-art technology, evidence-based research, and minimally invasive surgical techniques to optimize patient outcomes, improve patient comfort, and reduce hospital stay.

### Common Pituitary Disorders Treated at Barrow Pituitary Center

- Pituitary adenomas – including micro and macroadenomas
- Hormone-producing tumors – Cushing’s disease, acromegaly, prolactinoma, TSHoma
- Radiation-induced hypopituitarism
- Craniopharyngioma
- Rathke’s cleft cyst
- Hypophysitis
- Meningioma
- Hypopituitarism

### Treatment

Treatment is determined by the size and type of tumor, hormone function or dysfunction, symptoms, previous treatment, associated conditions, and patient preference. At the Barrow Pituitary Center, we offer a compassionate multidisciplinary team approach of surgeons and medical specialists in evaluating and formulating a treatment plan for each patient. Treatment may involve medication, surgery, radiation treatment/surgery, and/or observation. Our team of physicians also specializes in minimally invasive approaches to treatment such as transnasal transsphenoidal surgery, expanded endoscopic endonasal surgery, and stereotactic radiosurgery (i.e., Gamma Knife or CyberKnife).

### Research Programs

We pride ourselves at the Barrow Pituitary Center in investigating new frontiers in pituitary diseases. From Phase 3 clinical trials of new medical treatments not yet available to the general public to developing knowledge of diseases and treatment of issues facing pituitary tumor patients, the Barrow Pituitary Center pursues vigorously new research avenues. For example, Barrow researchers lead a consortium of over a dozen United States medical centers dedicated to improving current treatments for pituitary diseases. We are also designing ways to improve postoperative care and shorten hospital stays. Other ongoing studies include developing insights into new diagnostic tests and medical therapies, and establishing a biorepository for pituitary tumors.
**Educational Programs**

The Pituitary Center at Barrow Neurological Institute hosts regular educational programs for residents, fellows, and practicing physicians specifically interested in pituitary disorders. The Center has a close relationship with the Endocrine Nurses Society and with acromegaly and Cushing's syndrome patient support groups. Monthly Neuroendocrine and Skull Base Conferences discuss challenging and rare patient cases. Other educational programs and rotations currently train physicians from the University of Arizona, Creighton University, St Joseph's Hospital and Medical Center, and several international sites. The Institute also sponsors an active schedule of conferences and practical courses on neurological and neurosurgical topics. For more information on the educational opportunities at Barrow Neurological Institute, go to BarrowNeuro.org/Education.

### Pituitary Center Team

#### Directors
- **Andrew Little, MD, FAANS, FACS, MBA**
  *Neurosurgeon*
  *Surgical Director*
- **Kevin C.J. Yuen, MD, FRCP (UK), FACE, FEAA**
  *Neuroendocrinologist*
  *Medical Director*

#### Pituitary Nurse Navigator
- Terry Maxwell, RN, BSN

#### Endocrinology
- Kevin Yuen, MD, FRCP (UK), FACE, FEAA
- Monica Rodriguez, MD
- Garineh Ovanessoff, MD
- Kajalben Buddhdev, MD
- Namitha Bhat, MD

#### Neurology
- Kerry Knievel, DO
- Jennifer Robblee, MD

#### Neuropathology
- Jennifer Eschbacher, MD

#### Neuro-Ophthalmology
- Karl Golnik, MD

#### Brain Injury and Concussion
- Glynnis Zieman, MD, MPH, FAAN, FAHS
- Yvette Brown-Shirley, MD

#### Neurorsurgery
- Andrew Little, MD, FAANS, FACS, MBA
- F. David Barranco, MD

#### Nurse Practitioners
- Estelle Doris, RN, MSN, FNP-C
- Thomas Rowe, FNP-C

#### Otolaryngology
- John Milligan, MD
- Griffin Santarelli, MD
- Ryan Rehl, MD

#### Neuro-Oncology
- Yoshie Umemura, MD
- Kelly Braun, MD

#### Radiation Oncology
- Igor Barani, MD
- William Kennedy, MD
- Ryan Kraus, MD