

UNIVERSITY OF FLORIDA HEALTH

2017 **PEDIATRIC**

**PROGRESS REPORT**





## FRIENDS,

It is an exciting time for the University of Florida Department of Pediatrics and UF Health Shands Children's Hospital. As we continue to expand and hire expertly trained faculty who are devoted to high-quality patient care, research and education, our pediatric programs continue to flourish. In this report, we share some of our research and initiatives that help make us a major destination for children worldwide with complex medical issues requiring specialized attention.

In addition to the outstanding care provided at UF Health Shands Children's Hospital and our pediatric specialty practices, we also have four pediatric primary care locations throughout Gainesville, Florida. We truly offer the full spectrum of pediatric services.

One of our major goals at the UF Department of Pediatrics is to train the next generation of superb clinicians, physician-scientists and leaders for our field. We pride ourselves on our progressive teaching models that produce graduates who are among the most productive leaders throughout the United States and abroad.

Another goal is to focus on our research. The UF Department of

Pediatrics ranks No. 28 among pediatrics departments at public universities in funding from the National Institutes of Health, or NIH, and we have seen a 52 percent increase in funding over the past five years. Federal funding, in addition to private foundation funding and state contract funding, allows us to provide state-of-the-art care and innovative therapies for children whose families put their trust in us.

UF Health Shands Children's Hospital is recognized by U.S. News & World Report as one of the best children's hospitals in the nation. We know this would not be possible without the dedication from our staff, trainees and faculty who are devoted to problem-solving care and continue to make remarkable things happen for our patients.

Thank you for taking the time to review our 2017 UF Health Pediatric Progress Report.

Sincerely,

**Scott A. Rivkees, MD**

Professor and Chair  
Department of Pediatrics  
UF College of Medicine

Physician-in-Chief  
UF Health Shands Children's Hospital

# PEDIATRIC ENDOCRINOLOGY



# PEDIATRIC GENE THERAPY

# PEDIATRIC HEMATOLOGY/ONCOLOGY

# NEONATOLOGY

## Neonatal Sepsis

**James L. Wynn, MD**, is an associate professor of pediatrics and experimental medicine at UF. His research on neonatal sepsis sets us apart from other academic health centers, as he leads research efforts that push children's medical care forward. He collaborates with other medical professionals around the country and the world, and his innovative studies are aimed at identifying new methods of treatment that will improve neonatal sepsis outcomes including survival.

### **Dr. Wynn studies how sepsis manifests in neonates in two ways:**

- Mechanistic studies** – Dr. Wynn pioneered and employs a mouse model of sepsis to understand better the neonate's unique pathophysiology as compared to adults. Use of a mouse model allows Dr. Wynn to modify very specific areas of the response to sepsis (genes, proteins) and discover new ways to prevent and treat neonatal sepsis.
- Observational studies** – By conducting human observational studies of neonates that develop sepsis in parallel with the mechanistic investigations in neonatal mice, Dr. Wynn can readily identify areas of overlap between humans and mice that can be tested and may become the targeted interventions for neonates with sepsis in the future.

**Adult** (click image to play video)



**Full-term** (click image to play video)



**Premature** (click image to play video)



Microfluidics in Preterm Newborns

reductions in sepsis-related death and life-long impairment for survivors.

# PEDIATRIC NEUROMUSCULAR DISEASES



# QUALITY



**BEST  
CHILDREN'S  
HOSPITALS**

**U.S. News**

CANCER  
2017-18

**BEST  
CHILDREN'S  
HOSPITALS**

**U.S. News**

CARDIOLOGY &  
HEART SURGERY  
2017-18

**BEST  
CHILDREN'S  
HOSPITALS**

**U.S. News**

DIABETES &  
ENDOCRINOLOGY  
2017-18

**BEST  
CHILDREN'S  
HOSPITALS**

**U.S. News**

NEONATOLOGY  
2017-18

**BEST  
CHILDREN'S  
HOSPITALS**

**U.S. News**

NEUROLOGY &  
NEUROSURGERY  
2017-18

**BEST  
CHILDREN'S  
HOSPITALS**

**U.S. News**

PULMONOLOGY  
2017-18