



INSTITUTE FOR BRAIN PROTECTION SCIENCES

ANNUAL REPORT FY2021-22



JOHNS HOPKINS
All Children's Hospital



Table of Contents

- 2 Mission & Vision
- 3 Message from The Director
- 4 Outpatient Clinic Visits
- 6 Global Reach
- 7 Center for Behavioral Health
- 8 Neurology
- 9 Neurosurgery
- 10 Rehabilitation Medicine
- 11 Sports Medicine
- 12 Academics & Research
- 13 Patient Story
- 14 Community Benefit Highlight
- 15 Donor Thank You

The photography included in this annual report spans over several years including the 2020 calendar year. Johns Hopkins All Children's Hospital is committed to the safety and health of our patients, families and staff.



Mission & Vision

The mission of the Johns Hopkins Institute for Brain Protection Sciences is to:

- provide the best possible health care in the areas of childhood developmental disorders, mental health, brain injury, rehabilitative care and pediatric neurological/neurosurgical diseases.
- improve all children's health and quality of life by delivering an expeditious and comprehensive array of educational and therapeutic options in a patient family fashion.

Our vision for the Institute for Brain Protection Sciences will raise the bar of knowledge and advance the field of pediatric neuroscience through research and innovations in clinical techniques, preventative services, technology and collaboration with others.



Welcome to the Institute for Brain Protection Sciences at a Glance and Annual Report

At no other time in history has the impact of medicine played such a critical role in our global existence. Here at Johns Hopkins All Children's Hospital, our focus is to provide the best pediatric medicine available as we become the premier academic center in the southeast. Our children, the generation of the future, deserve nothing less than our best. The care they receive today will determine how well they can live their tomorrows. We are dedicated to giving them the opportunity for their brightest tomorrow.

This neuroscience institute was born out of a vision to develop comprehensive, multidisciplinary programs that would provide orchestrated, innovative, state-of-the-art care for all aspects of pediatric brain health. Whether it is treatment for brain tumors, traumatic brain injuries, concussions, epilepsy, congenital disorders, autism, mental health disorders or other neurodevelopmental conditions, our specialists work as a team committed to offering family-centered, individualized care plans with a full range of inpatient and outpatient services.

Our approach unites clinicians, researchers and educators as we strive to push the boundaries in medicine. This is especially important now as we experience increases in youth mental health issues, and the effects of long-term COVID-19 on our families, ground-breaking science in neuro-oncology, telemedicine and new surgical technologies. We must continue to advance, find new and better ways, collaborate without obstacles, and exceed the current standards of care—for all children regardless of socioeconomic background, race, ethnicity, religion or gender identity.

I am proud to say that our team has done all of that, and more, at this time. In the midst of unprecedented circumstances, we remain a pillar of strength, service and hope for the children and families of our community and abroad.

All we do. All for kids.

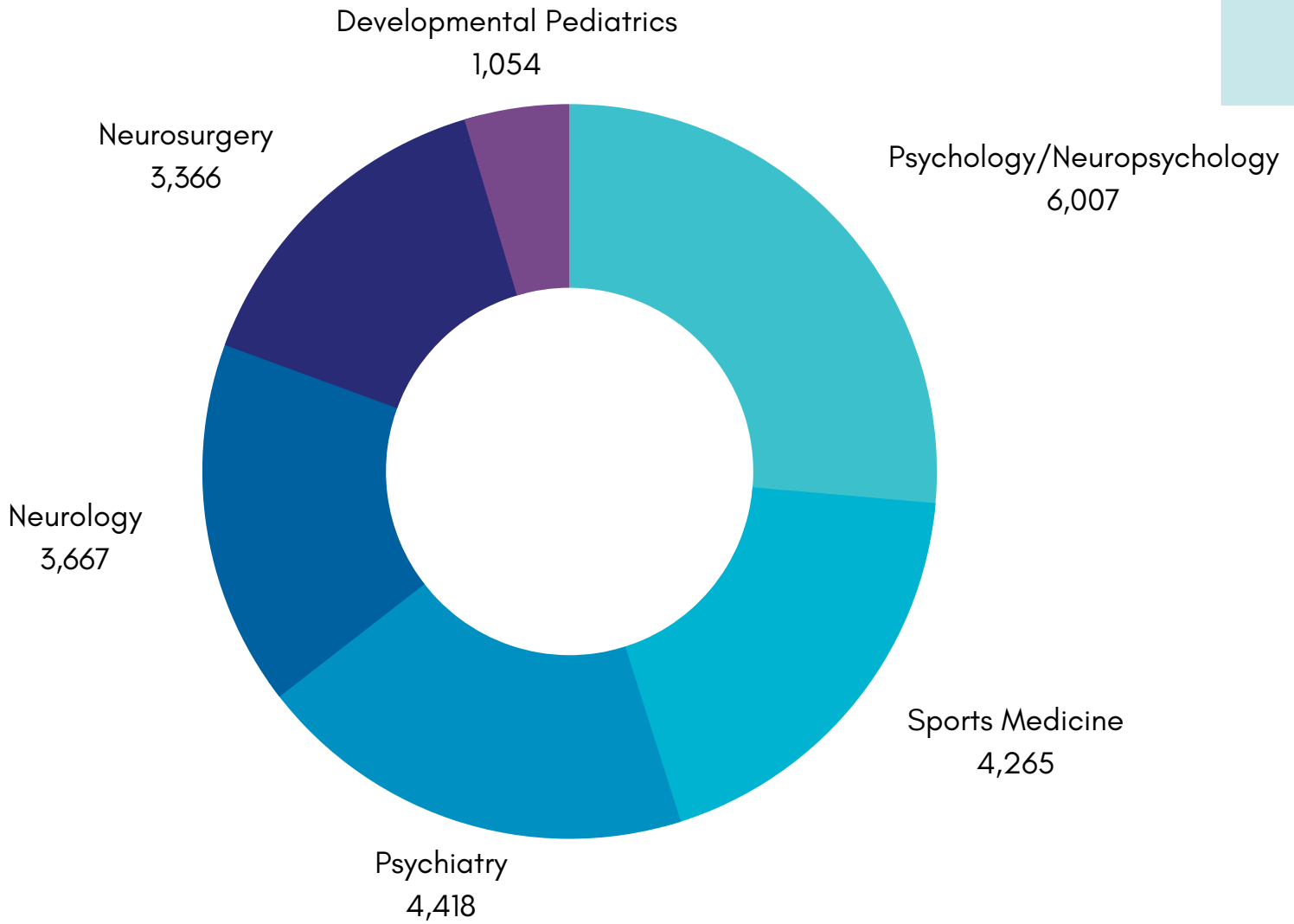


George Jallo, M.D.

*Medical Director, Institute for Brain Protection Sciences
David M. Goldenberg Family Chair
Vice Dean and Physician-in-Chief
Johns Hopkins All Children's Hospital*

Outpatient Clinic Visits

July 1, 2020 – June 30, 2021



Total Clinic Visits: 22,777

Patient Statistics

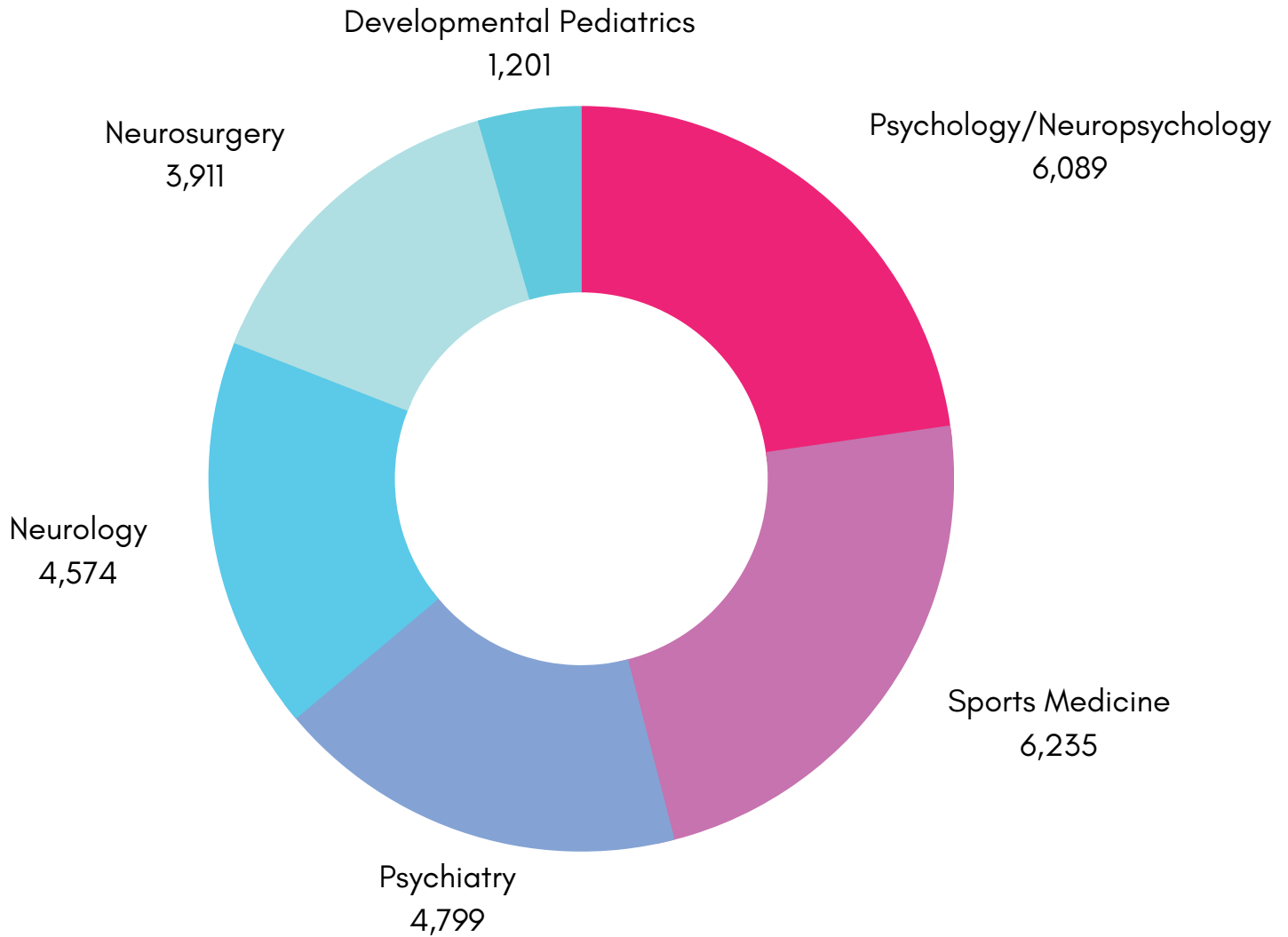
Telehealth Encounters	4,381
Inpatient Days	5,821
EEGs (inpatient, outpatient)	743
Outpatient EMGs	54
Average Length of Stay	2.54
Surgeries	431

Institute Metrics

Shunt Infection	2.3%
Number of 30-day readmissions	3.9%
Number of Trainees	7
International Encounters	523
Out of State Encounters	1,828

Outpatient Clinic Visits

July 1, 2021–June 30, 2022



Total Clinic Visits: 26,809

Patient Statistics

Telehealth Encounters	4,924
Inpatient Days	6,932
EEGs (inpatient, outpatient)	946
Outpatient EMGs	61
Average Length of Stay	2.59
Surgeries	472

Institute Metrics

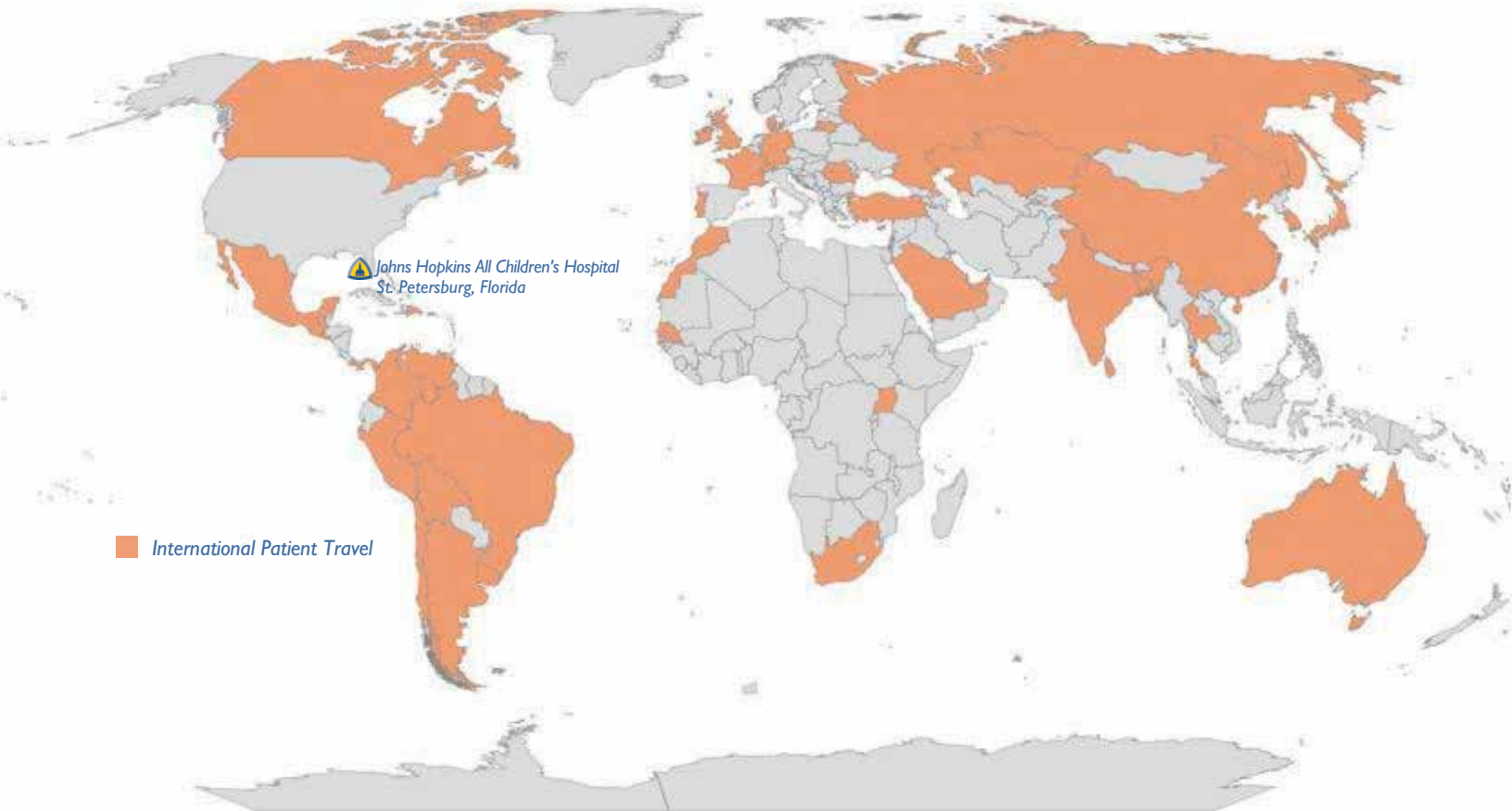
Shunt Infection	0.9%
Number of 30-day readmissions.	4.5%
Number of Trainees	15
International Encounters	893
Out of State Encounters	2,416

Global Reach

FY21 & FY22

Patients traveled from more than 56 countries to receive care from our providers from 2020–2022.

Our International patient services department offers comprehensive care and a range of concierge services for our patients and their families travelling from around the world for care. These include language translational services, dietary accommodations, social work services, Child Life services, spiritual support and coordination of care.



Center for Behavioral Health FY21 & FY22



Sakina Butt, Psy.D., working with her patient Kyleigh—August 2021

The Center for Behavioral Health in the Institute for Brain Protection Sciences provides evidence-based mental health screening, consultation, evaluation, and treatment.

Children and adolescents have many challenges growing up today—social media, bullying, psychological trauma from events such as school shootings, anxiety, depression and many other stressors. The Center for Behavioral Health in the Institute for Brain Protection Sciences provides comprehensive mental and behavioral guidance and treatment using evidence-based assessment, consultation and intervention.

Highlights

- Expanded psychology & neuropsychology fellowship programs
- Awarded over seven Shark Tank Grants to Psychology and Social Work
- Social Work and Psychology integrated in over 10 multidisciplinary clinics
- Crisis prevention and de-escalation training for staff with Lauren Gardner, Ph.D and an innovative program for parents under development

The Numbers

27

Publications by staff and trainees since 2020, and 6 under review

12

New staff members onboarded to CBH since FY22

\$2.2 Million

in donor funding

"If we had not had these services through the Center for Behavioral Health, I don't think Huntley would be able to function academically or socially at the level that he is today,"

—Amy, Huntley's Mom

Neurology

FY21 & FY22



The Number

743

total inpatient & outpatient EEGs for FY21

946

total inpatient & outpatient EEGs for FY22

293

Seizure Monitoring Unit admissions for FY21

336

Seizure Monitoring Unit admissions for FY22

37

epilepsy surgeries in FY21

49

epilepsy surgeries in FY22



Nitin after his 24-hour video EEG Study with Neel Parikh, M.D.—June 2022

We treat your child and your family as part of our own. We understand this can be a very difficult and scary time for the entire family. From your child's initial diagnosis through long-term follow-up care, we pledge to provide compassionate, comprehensive support to the entire family.

Highlights

- Started a multidisciplinary Epilepsy Surgery Clinic with Neurosurgery
- Pursuing a Child Neurology Residency Application with ACGME
- Christopher Inglese, M.D., won the 2021 Clinical Award for Best Consulting Physician
- National Association of Epilepsy Centers (NAEC) Accredited Level IV Epilepsy Center

"Ethan's seizures have become less frequent. He's a more social kid and now opens the door to his room and walks out. There's definitely a bigger desire to walk and more interest in exploring and being outside."

—Kelli, mother of patient being treated in Epilepsy Surgery Clinic



U.S. News & World Report ranks our Neurology & Neurosurgery program #18 (#1 in Florida) in the country among Children's Hospitals for 2022-2023

Our Pediatric Neurosurgery Program at Johns Hopkins All Children's Hospital is one of the largest in the Southeast and provides comprehensive pediatric neurosurgery care for patients throughout Florida, the United States, and the world.

Highlights

- Golisano Children's Hospital Expansion
- Hired Chief of Neurosurgery
- Implemented Brainlab system for OR neuro-navigation
- Expanding outreach clinics in Fort Myers and Lakeland
- Tampa General/JHACH Hybrid position accepted and started FY22
- Hired a junior faculty/Clinical Research Director
- Fellowship program successfully matched with a fellow each year

Neurosurgery FY21 & FY22

The Numbers

78

Clinic patients seen in Brachial Plexus in FY21

90

Clinic patients seen in Brachial Plexus in FY22

431

surgeries in FY21

472

surgeries in FY22

533

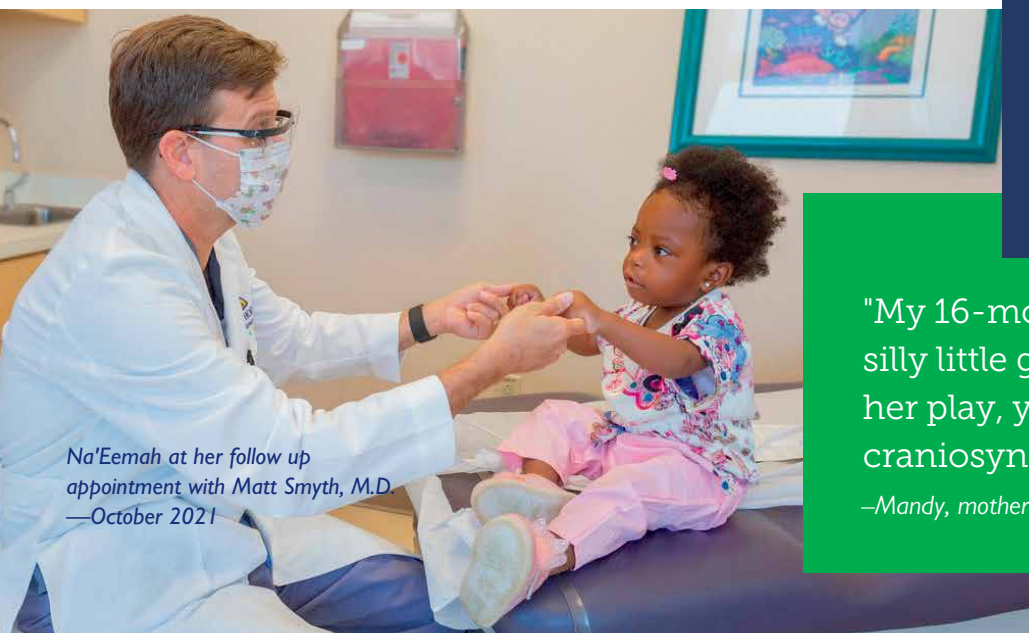
inpatient consults in FY21

500

inpatient consults in FY22

13

Countries represented among neurosurgical patients between FY21 & FY22



Na'Eemah at her follow up appointment with Matt Smyth, M.D.
—October 2021

"My 16-month-old is a happy fun-loving silly little girl. Looking at her and watching her play, you could never tell she had craniosynostosis."

—Mandy, mother of patient treated for Craniosynostosis

Rehabilitation Medicine

FY21 & FY22

The Numbers

67

Patients seen in the Skeletal Dysplasia Program from July 2020–June 2022

155

Patients seen in the Spina Bifida Program from July 2020–June 2022

1,054

clinic visits in FY21

1,201

clinic visits in FY22



Emerson after her wheelchair appointment —June 2019

"When she stood and took her first steps, the crowd just erupted"

—Robin, mother of patient treated by our Rehab team

Rehab Medicine plays an active role in the hospital, outpatient and multidisciplinary settings. On the inpatient side, patients with rehab needs are seen in consultation to help coordinate their ongoing therapy programs.

In the clinic setting, Rehab Medicine focuses on children with special needs and various disabilities, especially cerebral palsy and spasticity, performing neurolytic procedures such as Botox injections.

Highlights

- Added physiatry RN Coordinator
- Expanded to include APP
- Participates in Spina Bifida, Skeletal Dysplasia, Stroke and Torticollis Multi-Disciplinary Clinics
- Outreach clinics throughout our catchment area

Sports Medicine

FY21 & FY22



Patrick Mularoni, M.D., with a patient in the Hydro Track

Our Sports Medicine team provides direct care, consultation and medical direction to schools and sports leagues while advocating for student athlete health. In addition to care provided at Johns Hopkins All Children's Outpatient Care sites, our Sports Medicine physicians are the exclusive medical providers at the prestigious IMG Academy. Our specialty physicians and athletic trainers focus on treating youth athletes who have suffered concussion, acute injury and overuse injury throughout the West Coast of Florida.

Community Coverage

- USA Gymnastics National Championships
- Special Olympics USA Summer Games
- Run for All Children
- Swim Across America
- Football coverage for five High School football teams
- Medical direction for four schools and Lightning High School Hockey League
- Lakewood High School ALMA Program
- Eddie Herr Tennis Tournament

The Numbers

1,371

out of state patient visits in FY21
at IMG Academy

446

international patient visits in FY21
at IMG Academy

1,944

out of state patient visits in FY22
at IMG Academy

770

international patient visits in FY22
at IMG Academy

"Our collaboration over the years with the hospital has been outstanding"

—Erin Savage, Lakewood High Principal

Highlights

- Concussion Multidisciplinary Clinic on main campus
- Welcomed our first external elective resident in 2022
- Fellowship in Pediatric Sports Medicine started in 2021

Academics and Research

FY21 & FY22

FY21 Highlights

- 23 publications in IBPS
- 54 open research studies
- 2nd Annual Pediatric Brain Symposium offering 19.25 CME credits for providers and 15.5 CEUs for nursing
- Brain Health Awareness Month offering 6 CEUs for nursing
- Sports Medicine awarded grant for a Research Assistant
- 2 CUPS presentations: Neuroscience and Center for Behavioral Health
- Brain Series offered 14.5 nursing CEUs and had 74 nurses attend
- Resident program with University of South Florida featuring rotations in neurology, neurosurgery and psychology
- Top Doctor Awarded to Mark Cavitt, M.D. and Patrick Mularoni, M.D.



Jennifer Katzenstein, Ph.D., accepting her 2020 Excellence award

FY22 Highlights

- 35 publications in IBPS
- 64 open research studies
- 3rd Annual Pediatric Brain Symposium offering 14.25 CME credits for providers and 12.5 CEUs for nursing
- Brain Health Awareness Month offering 7 CEUs
- Brain Series offered 14.5 nursing CEUs and had 92 nurses attend
- Awarded David M. Goldenberg Family Endowed Chair for Institute for Brain Protection Sciences



Ivo Peto, M.D., Neurosurgery Resident at 10th Annual Research Symposium



Alan, Center for Behavioral Health Patient

Alan's Fight Against Anorexia Nervosa

Alan, 15, wanted to feel better about himself and began a quest to lose weight, but his effort spiraled into an eating disorder called anorexia nervosa that would nearly cost him his life. With dedicated care and therapy from the Center for Behavioral Health, Alan charted his course back to good health—back to himself.

One in four children between the ages of 3 and 17 has a diagnosable mental, emotional or behavioral health disorder. The Center for Behavioral Health aspires to provide families a comprehensive, integrated approach to mental health care. A team of psychiatrists, psychologists, neuropsychologists, social workers and trainees address specialized areas such as attention deficit hyperactivity disorder (ADHD), anxiety/mood disorders, autism spectrum disorders, neuropsychology/neurodevelopment, pain management, adjustment to medical diagnoses and disordered eating.

To learn more about Alan's Journey please visit:

**[HopkinsAllChildren.org/
alanjourney](https://HopkinsAllChildren.org/alanjourney)**

Community Highlight

FY21 & FY22

Law Enforcement Officer Training in Autism Spectrum Disorder

Goal

To provide training by the Autism Program at Johns Hopkins All Children's Hospital to increase Law Enforcement Officers' knowledge and awareness of autism spectrum disorder (ASD).

Participants will learn about behaviors commonly associated with ASD and how to respond in a proactive and positive manner to calls they may receive involving individuals with ASD.

Interactive Presentation

Participants will receive a half-day training in specific strategies to facilitate de-escalation in crisis situations when responding to calls involving individuals with autism. This training will increase officers' competence and confidence when interacting with individuals with autism spectrum disorder (ASD).

Additionally, participants will learn about resources available within the community to facilitate access to services for families affected by ASD.

Simulation Training

Participants will have an opportunity to learn through role play scenarios utilizing the skills taught throughout the morning session.

**As seen in picture*



Lauren Gardner, Ph.D., Administrative Director of the Autism Program, observes how officers de-escalate a simulated call involving a teenager with autism spectrum disorder (ASD) in the hospital's Center for Medical Simulation and Innovative Education, in this photo from 2019.

More Information

Location

Johns Hopkins All Children's
Research & Education Building
600 5th St. South
St. Petersburg, FL 33701

Contact

ach-autismprogram@jhmi.edu

Donor Thank You

We are deeply grateful for the incredible philanthropic support we receive from our community each year. It is our honor to recognize the individuals, corporations, foundations and community groups who stand with us. Supporters like you make a difference to our patients and families every day in a number of ways. On behalf of the staff, physicians and most importantly patients, who are impacted by your generosity, we extend our most sincere thanks and appreciation.

Below is a listing of donors giving \$10,000+

Charles & Margery Barancik Foundation
Cigna Healthcare of Florida
Copperhead Charities
Duke Energy
The Goldenberg Family Foundation
Kevin & Angela Hawkins
Hill Ward Henderson
Robb & Susan Hough
Hough Family Foundation
Ian's Friends Foundation, Inc.
Jabil, Inc.
Kim Jenson
Johns Hopkins All Children's Foundation Guild
Kart 4 Kids Inc.
George & Christina Klimis
Francis and Gertrude Levett Foundation
Ray E. Newton, III
Polywogs, Inc.
Prometheus Investment Management IV, LLC
Raymond James Financial, Inc.
Richard Mather Fund
Maurice A. & Thelma P. Rothman Family Foundation
Sadie Nauy Charitable Foundation
Greg & Natalia Schratwieser
Bob & Claudia Sokolowski
Ray & Nancy Swart
Thunder Marine International
TSE Industries / Klingel Family Foundation
Michael & Beth Vivo



*Jenine Rabin, Alicia Schulhof and George Jallo
On October 28, 2021, Dr. George Jallo received
the David M. Goldenberg Family Endowed Chair in
the Institute for Brain Protection Sciences*

Total raised for FY21
\$2,925,994

Total raised for FY22
\$7,501,113



JOHNS HOPKINS
All Children's Hospital



Institute for
Brain Protection Sciences

all we do. all for kids.™

Contact Us

Email: ibps@jhmi.edu

Please do not share patient information through email

Phone: 727-767-8740

Address: 600 Fifth Street S., St. Petersburg, FL 33701

Hopkinsallchildrens.org/brain