2015 Pediatric Research Conference
June 22, 2015

Emory Conference Center and Hotel
Children’s Healthcare of Atlanta

100th ANNIVERSARY

Share Your Story: choa.org/100years

This display represents a snapshot of our 100-year history. Visit our website to learn more about the stories, moments and milestones that make up our journey.

“Every child we help has the potential to make a difference in our future, to be a hero to the next generation. We have the opportunity to make a difference all around the world, to give a future to those less fortunate and make dreams come true to those who have never thought it possible.”

Julie Niles, Children’s Healthcare of Atlanta Assistant Vice President, 1980s

The story of Children’s Healthcare of Atlanta began in 1915, with 30 hospital beds in two small cottages in Decatur. A center of medical care, Children's has evolved to three hospitals, 24 neighborhood locations, 80 pediatric specialties and programs, 8,000 patients seen annually, and recognition as one of the top pediatric health care institutions in the country.

Our story is one of hope and will. The hope for a better future for children and the will to make it happen.
Inflammation in Pediatric Health: Improving care through innovation and technology

June 22, 2015
Emory Conference Center Hotel
ABOUT CORPH

The CORPH centralizes and coordinates outcomes and epidemiologic research throughout the child healthcare system, emphasizing strong ties to the Rollins School of Public Health at Emory University and to the Centers for Disease Control and Prevention. The Center synergizes with Children’s Healthcare of Atlanta’s plans for new wellness initiatives impacting the health of Georgia’s children. Researchers in this center focus on identifying new methods to measure and improve pediatric healthcare outcomes. Emphasis is placed upon evaluating comparative effectiveness in a variety of clinical areas including birth and neonatal outcomes, neurodevelopmental outcomes and transition of care from the teenage years into adulthood for those populations who suffer from chronic illnesses. Important current focus areas include asthma, cardiac, surgical, neonatal outcomes and on wellness including health promotion and obesity prevention.

EPIC AND DATA WAREHOUSE REQUESTS

Thinking about CORPH related research, we are here to help!

For all your data needs, we have simplified the process of requesting data:

- If you are a CHO faculty, there are three ways you can contact us:
  - Just send us an e-mail to: data@choa.org, especially if you are a non-CHOA faculty.
  - If you are a CHO faculty and your data needs are ‘Routine’ (please see below for what is ‘Routine’ request) you can access and fill out the Report request form, after logging into CareForce.

Routine Requests and Report Portal

Path: Careforce> Departments> Outcomes Center> Report Requests

URL: http://apex/reportrequests/Pages/home.aspx

*“Routine Requests” will be answered within 24 hours!*

*“Routine Requests” must meet the following criteria:
- Data exists and is available
- Data has been validated
- Report exists but needs modification
- Break fix
- Work effort is equal or less than 24 hours
- This will not result in additional requests.

- If you are a CHO faculty and your request is for a more complicated data set (e.g. multiple data sources), or you require Outcomes Center or BI resources such as REEDCan form development and data collection, statistical or economic analysis support, or data abstraction / data entry, you can access and fill out the Care Transformation Prioritization Request form, after logging into CareForce.
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Routine Requests and Report Portal
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URL: http://epic.com/reportrequests/Pages/Home.aspx
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- Work effort is equal or less than 24 hours
- This will not result in additional requests.

- If you are a CHOA faculty and if your request is for a more complicated data set (e.g. multiple data sources), or you require Outcome Center or data collection
  - Resources such as REEPCap form development and data collection.

USEFUL CONTACTS
For more information on CORPH:
Paul Spelman, MD
Acting Center Director
Email: paul.spelman@choa.org
Phone: 404-217-0344

Care Transformation Prioritization Request:
Path: Careforce> Departments> Outcomes Center> Care Transformation Prioritization Request
URL: http://epic.com/transformations/Pages/Request.aspx
KIDS Georgia
Kids and Families Impacting Disease through Science

BACKGROUND
Kids and Families Impacting Disease through Science (KiDS) is an advisory group of children, families, and partners focused on understanding, communicating, and improving disease research and innovation for children.

KiDS is a collaboration between the American Academy of Pediatrics (AAP) Section on Advances in Therapeutics and Technology (SATT), KiDS Chapters, Children’s Hospital, local schools, and other partners.

KiDS Georgia is a KiDS Chapter with its first meeting in December 2014 and hosting their first meeting.

MEMBERSHIP
- Children aged 8 to 12 (and their families) who have
  - Experience in a career
  - Experience using hospital services
  - Chronic medical conditions and/or take medication regularly
  - Interested in medicine or research

KiDS Georgia is a chapter with
- 100 active members and their families
- 80% of the members have
  - 80% with medical conditions
  - 80% healthy with interest in research or science
- Membership requires attendance to 50% of chapter meetings. 80% of executive board

KiDS Georgia

KiDS using their voice to advance medicine

FACTORS
- Learn, back and advocate for medicine, research, and innovation that improves the health and well-being of children
- Engage in the process through projects and collaboration with hospitals, researchers, and other partners across the public and private sectors.
- Provide input in real ideas, innovative solutions, and pediatric needs and priorities.
- Contribute to the design and implementation of clinical studies for children.
- Serve as a critical voice for children and families in the medical research and innovation process.

ICAN
- The International Children’s Advisory Network (ICAN) is the umbrella organization for all KiDS groups in the U.S. and abroad, including Young Person Advisory Groups in the U.K. and Scotland, and the KiDSCan group in Canada.

ICAN
- The ICAN Research Summit in June 2015 at the 1st annual ICAN Research Summit
- Feedback request can be pushed out to other KiDS chapters and ICAN network
- Helps fulfill patient-centered outcome requirements many grant applications now request

HOW TO ACCESS
- KiDS Georgia
  - www.kidsgeorgia.org
- ICAN
  - www.icareresearch.org
- Email
  - KiDSGeorgia@icareresearch.org

Emory University
KIDS Georgia
Kids and Families Impacting Disease through Science

BACKGROUND
Kids and families impacted Disease through Science (KIDS) is an emerging group of children, adolescents, and families focused on understanding, communicating, and improving health, research, and innovation for children.

KIDS is a collaboration between the American Academy of Pediatrics (AAP) and the National Academy of Sciences (NAS) network of Affiliate Chapters, children's hospitals, pediatric institutions, and other partners in the public and private sectors.

KIDS Georgia: received Georgia AAP Chapter, Annual Meeting, June 2014 and first full meeting December 2014.

OBJECTIVES:
- Enhance and advocate for medical research and innovation that improves the health and well-being of children through projects and programs that engage children and their families, and other partners in the public and private sectors.
- Provide input on research ideas, innovative solutions, and pediatric needs and priorities.
- Contribute to the design and implementation of clinical studies for children.
- Serve as a critical voice for children and families in the medical, research, and innovation process.

METHODOLOGY:
- Engage with families, children, and other stakeholders.
- Develop strategies for engaging children and their families.
- Develop and implement strategies for engaging children and their families.

CURRENT KIDS GEORGIA CHAP.
- 10 chapter members and volunteers.
- 85% with medical degree.
- 60% with medical degree.
- 60% actively involved in medical research.
- 50% actively involved in medical research.

SERVICES:
- Pediatric input on research protocols during any stage of development.
- Feedback can be shared out to other KIDS chapters.
- Help fulfill patient-centered outcomes requirements for grant applications.

HOW TO ACCESS:
KIDS Georgia: www.kidsgeorgia.org
Email: info@kidsgeorgia.org

KiDS Georgia
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Introducing the Creation of a New Pediatric

Global Translational Research Hub to Increase Productivity in

Patel Research Fund & Inducing Health Disparities in Georgia

INTRODUCTION

• Autism spectrum disorder (ASD) is a complex, heterogeneous disorder characterized by impairments in communication, socialization, and behavior.

• 1/5 of children with ASD report a comorbid medical condition.

• Children with ASD with comorbid medical conditions are more likely to be non-compliant with their medical care.

• It is estimated that only 10% of children with ASD are identified by their medical providers.

RESULTS

• Assessed for eligibility (n = 2000)

• Excluded (n = 2000) Not meeting inclusion criteria

• 1999

• Did not participate due to scheduling conflicts

• Recruited (n = 100)

• Interested in focus group (n = 100)

• Did not participate

• Enrolled (n = 100)

• Enrolled in analysis study

METHODS

- Participants: Children with ASD and their families who met inclusion criteria
- Research design: Cross-sectional
- Data collection: Multiple choice, open-ended, and structured questionnaires

DISCUSSION

- Findings support the need for increased research on the impact of medical comorbidities on ASD
- Recommendations for future research
- Implications for healthcare providers and families
A truncated FIP1L1/KP fragment inhibits incorporation of the HIV envelope glycoprotein into budding virions by sequestering envelope in the endosomal recycling compartment.

[Poster content and figures related to the research topic.]

[Discussion among the researchers.]
A truncated FIP1/C/RCP fragment inhibits incorporation of the HIV envelope glycoprotein into budding virions by sequestering envelope in the endosomal recycling compartment.

Junghwa Choi¹, Mingli Qi¹, Ling Zhu Dinh¹, Jason Hammonds¹, Lynne A. Lapaque⁴, James R. Goldsmith⁴, and Paul Spearman¹

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ABSTRACT

RESULTS

Figure ABSTRACT: [Diagram of abstract with graphs and images]

CONCLUSION

There currently is a gap in the diversity and breadth of pediatric clinical research to address specific disease conditions which disproportionately affect minority populations, although units to target specific clinical programs in research exist in other areas of the United States. There is a need for truly support these collaborative efforts.

BACKGROUND

The feasibility of developing a pediatric clinical research program targeting specific disease conditions is critical to addressing the needs of minority populations.

Future Directions

[Diagram of future directions with bar charts and images]
KIDS Georgia
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KIDS is a collaboration between the American Academy of Pediatrics (AAP) Section on Advances in Therapeutics and Technology (SACTT), local AAP Chapters, children’s hospitals, local schools and other partners.

KIDS Georgia received Georgia AAP Chapter status in June 2014 and held their first meeting December 2014.

MEMBERSHIP
Children ages 6 to 18 (and their families) who have:
• Experience in a clinical trial
• Experience using hospital services
• Chronic medical conditions and/or take medication regularly
• Interest in medicine and/or research

Current KIDS Georgia Chapter:
• 101 active members + their families
• 50% with medical condition
• 40% healthy with interest in medicine/research science
• Membership requires attendance to 2/3 of chapter meetings. 80% on executive board

OBJECTIVES
• Learn, teach, and advocate for medicine, research, and innovation that impacts the health and well-being of children
• Engage in the process through projects and consultation activities with hospitals, researchers, and other partners in the public and private sectors
• Provide input on research ideas, innovative solutions, urgent pediatric needs, and priorities
• Contribute to the design and implementation of clinical studies for children
• Serve as a critical voice for children and families in the medical, research, and innovation process

ICAN
The International Children’s Advisory Network (ICAN) is the umbrella organization for all KIDS groups in the U.S. and abroad, including Young Person Advisory Groups in the U.K. and Scotland, and the KIDSCan group in Canada.

While the network has already begun to roll-out, its official launch will be in June 2015 at the 2nd annual ICAN Research Summit. This event will draw between 120-150 children, families, and team advisors from the United States, Canada, United Kingdom, Scotland, Australia, Spain, France, and elsewhere. KIDS Georgia will have 10 members and 2 adult advisors in attendance.

SERVICES
• Pediatric input on research projects during any stage of development by our KIDS Georgia panel
• Feedback requests can be pushed out to other KIDS chapters and ICAN network
• Helps fulfill patient-centered outcomes requirements many grant applications now request

HOW TO ACCESS
KIDS Georgia: www.kidsgeorgia.org
ICAN: www.cancerresearchuk.org
Email: info@kidsgeorgia.org

Kids using their voice to advance medicine
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June 22, 2015
Emory Conference Center Hotel
AnemoCheck: a point-of-care, patient-operated, standalone, inexpensive, & disposable diagnostic test for anemia

Sofia G. Fajdani, BS; Caroline E. Hansen, BS; Erika A. Tybulski, BS, & Wilbur A. Lian, MD, PhD, Emory University School of Medicine

The Problem
Anemia - low hemoglobin in red blood cells. Hemoglobin: O₂ → O₂

The Solution
Step 1: Insert test strip
Step 2: Apply saliva
Step 3: Read result

Clinical Testing

The Competition

Go to demo and smartphone app

World Health Organization

Global Health
AnemoCheck: a point-of-care, patient-operated, standalone, inexpensive, & disposable diagnostic test for anemia

Stella O. Fagbemi, BS, Caroline E. Hansen, BS, Erika A. Tyburski, BS & Wilbur A. Lam, MD, PhD, Emory University School of Medicine

The Problem

Anemia = low hemoglobin in red blood cells. Hemoglobin = O₂ + CO₂

- B12, Iron, Folate Deficient
- >60 years old
- Pregnant Women
- Chronic Infectious Diseases: HIV/AIDS, Malaria, TB, Parasites
- Sickle Cell Disease
- Chemotherapy
- Children

2 BILLION

Clinical Testing

Step 1: Perform finger stick
Step 2: Collect blood in tube
Step 3: Insert tube, mix well & wait 1 minute

The Solution

AnemoCheck Absorbance Curves

Step 1: Perform reaction
Step 2: The image will convert to black and white.

The Competition

Hematology Analyzer for Complete Blood Count (CBC)
- Hospital Visit
- Venous Blood Draw
- Wait Time
- High Costs: US $20 Co-pay

HemoCue Spectrophotometer
- US $1,000 Machine Cost
- US $1-2 Cassette Cost Per Test

World Health Organization Hemoglobin Color Scale
- Subjective
- Inaccurate

Tetramethylbenzidine (TMB) + H₂O₂ + TMB(oxidized) + H₂O

The Device and Smartphone App

Step 1: Center the filled tube in the viewing window and capture the image.
Step 2: The image will convert to black and white.

Going Forward

The Team

The Team members include experts in hematology, engineering, and public health, who are dedicated to developing a simple, affordable, and effective solution for anemia detection.

For more information, visit our website anemochek.com.