

Nikhil Chanani

**EMORY UNIVERSITY SCHOOL OF MEDICINE
STANDARD CURRICULUM VITAE**

Revised: 01/06/2022

1. **Name:** Nikhil Kumar Chanani, MD
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3. **E-mail Address:** chananin@kidsheart.com
4. **Citizenship:** USA
5. **Current Titles and Affiliations**
 - a. Academic appointments:
 - i. Primary appointments:
Associate Professor of Pediatrics, Division of Cardiology
Emory University School of Medicine, 2019 - Present
 - b. Clinical Appointments:
Pediatric Cardiologist, Sibley Heart Center Cardiology, 2010 – Present
Cardiac Intensivist, Children’s Healthcare of Atlanta (CHOA), 2010 - Present
 - c. Other Administrative Appointments
Director, Outcomes and Quality, Cardiac Intensive Care Unit (CICU), CHOA, 2015 – Present
Medical Director of Outcomes and Quality, Cardiac Service Line, CHOA, 2016 – Present
6. **Previous Administrative and/or Clinical Appointments**

Assistant Professor of Pediatrics, Division of Cardiology
Emory University School of Medicine, 2010 - 2019
Staff Physician, Department of Pediatrics, St. Luke’s Hospital, San Francisco,
California, 2005 - 2007
Pool Physician, Department of Pediatrics, The Permanente Medical Group, San
Francisco, California, 2005 - 2010
Consultant Pediatric Cardiologist, Northside Hospital, Atlanta, Georgia, 2010-2017
7. **Licensure/Boards**
 - a. State of California: 2005-2012
 - b. Drug Enforcement Agency Licensure - 2005
 - c. PALS and NALS certified - 2005 (recertified in 2007, 2009)
 - d. Certified, Diplomate of the American Board of Pediatrics – 2005

- e. Fluoroscopy X-Ray Supervisor and Operator, California - 2007
- f. State of Georgia, 2010

8. Specialty Boards

Pediatrics, 2005
Pediatric Cardiology, 2008

9. Education

1993 – 1997, AB Economics with Distinction and Honors
BS Biological Sciences with Distinction
Stanford University
1997 – 2002, MD with Cum Laude in Special Field
Harvard Medical School

10. Postgraduate Training

Internship, University of California, San Francisco (UCSF)
Supervisor: Dr. Robert Kamei
2002 - 2003

Residency, University of California, San Francisco (UCSF)
Supervisor: Dr. Tim Kelly
2003 – 2005

Fellowship, Pediatric Cardiology, University of California, San Francisco (UCSF)
Supervisor: Dr. Michael Brook
2005 - 2008

Fellowship, Pediatric Cardiovascular Intensive Care, Stanford University
Supervisor: Dr. Stephen Roth
2008 – 2010

11. Continuing Professional Development Activities

- a. Designing Clinical Research Workshop, Training in Clinical Research, Post-Graduate Program, Department of Epidemiology and Biostatistics, UCSF School of Medicine, 2006
- b. Teacher Observation Program, TIP-TOP Faculty Development, Academy of Medical Educations (UCSF), 2007
- c. ECMO Training Program, Division of Neonatology, Department of Pediatrics, UCSF School of Medicine, 2007
- d. Intensive Course in Clinical Research: Study Design & Performance, Stanford Center for Clinical and Translational Education and Research, 2008
- e. ECMO Certification Program, Lucille Packard Children's Hospital (LPCH), 2009
- f. ECMO Certification Program, CHOA, 2010
- g. Quality Academy: Practical Methods for Healthcare Improvement, Emory Healthcare, 2016

h. CHOA Quality Academy, 2017

12. Committee Memberships

a. National and International

- i. Executive Committee member, Pediatric Cardiac Critical Care Consortium(PC4), 2011 – Present
- ii. Physician Lead, Virtual PICU Systems-CHOA, 2011 - 2015
- iii. Member, American Heart Association, Cardiovascular Disease in the Young, 2012 - Present
- iv. Member, PC4 Data Definitions Committee, 2012 - Present
- v. Member, Cardiac Advisory Group, Virtual PICU Systems (VPS), 2012 – 2014
- vi. Member, LumeDx Pediatric User Group, 2015 – Present
- vii. Member, Atlantic Pediatric Device Consortium, 2016 - Present
- viii. Member, Quality Committee of Pediatric Cardiac Intensive Care Society (PCICS), 2017 – Present
- ix. Member, PC4 Audit Committee, 2018 – Present
- x. Member, PC4 Program Committee, 2018 - Present
- xi. Co-Chair, PC4 Data Definitions Committee, 2019 – Present
- xii. Member, Diversity, Equity, and Inclusion Committee, PCICS, 2021 - Present

b. Regional

Member, Specialty Subcommittee, Quality Committee, The Children's Care Network, 2015 - Present

c. Institutional

- i. Admissions Committee, Harvard Medical School, 1998 – 2001
- ii. Member, Registrar Selection Committee, Harvard Medical School, 2001
- iii. Curriculum Committee, Department of Pediatrics, University of California, San Francisco (UCSF), 2002 – 2005
- iv. Fellows and Residents Advisory Group – Ucare (UCSF), 2007 – 2008
- v. Member, Children's Heart Center Research Committee, LPCH, 2009 – 2010
- vi. Member, Cardiac Service Line Quality and Outcomes Working Group, CHOA, 2010 – Present
- vii. Member, Cardiac ICU Patient Care Committee, CHOA, 2010 – Present
- viii. Member, Cardiology Fellowship Education Committee, 2010 - Present
- ix. Physician Leader, Cardiac Service Line Epic Workgroup, 2011 – Present
- x. Resident Selection Committee, Emory University Department of Pediatrics, 2011 – Present
- xi. Member, Venous Thromboembolism Task Force, CHOA, 2012 – Present
- xii. Member, Cardiology Fellowship Clinical Competency Committee, 2012 - Present
- xiii. Member, EPIC Physician Oversight Committee, CHOA, 2012 – Present
- xiv. Member, Faculty Life Course Committee, Emory University, 2013 – 2015
- xv. Clinical Trial Advisory Council, CHOA, 2015 - 2017
- xvi. Chair, Cardiac Services Hospital Acquired Infection Prevention Program, CHOA, 2015 – Present
- xvii. Member, Patient Safety Huddle, CHOA, 2015 – Present

- xviii. Member, Surgical Performance Improvement & Patient Safety Council, CHOA, 2017 – Present
- xix. Member, Quality Cabinet, CHOA, 2019 - Present
- xx. Member, Medicine Professional Practice Evaluation Committee (PPE – formerly Peer Review), CHOA, 2020 – Present
- xxi. Member, Quality and Patient Safety Guiding Task Force, CHOA, 2020 – Present
- xxii. MD Champion, CHOA, Patient Harm Associated with Race and Ethnicity (PHARE) Pioneer Cohort for CLABSI and UPE, Society for Patient Safety, 2021 – Present

13. Peer Review Activities

a. Grants

i. National and International

- a. American Heart Association, Committee on Cardiovascular Development, 2010 – Present
- b. Panelist, Reveille Start-up Evaluation, 2016 – Present

ii. Regional

- a. Grant Reviewer, Atlanta Pediatric Device Consortium Innovation Competition, 2016 - Present

iii. Institutional

- a. Grant Reviewer, Center for Pediatric Innovations, Georgia Tech, 2014 - Present

b. Manuscripts

- i. *Pediatric Cardiology*, 2009 – Present
- ii. *Future Cardiology*, 2011 – Present
- iii. *American Journal of Cardiology*, 2013 – Present
- iv. *BMC Surgery*, 2015 – Present
- v. *BMJ Open*, 2016 – Present
- vi. *Cardiology in the Young*, 2016 – Present
- vii. *Pediatric Critical Care Medicine*, 2020 - Present

c. Conference abstracts

i. National and International

- a. Pediatric Cardiac Intensive Care Society, Annual Meeting, 2016 – present
- b. Pediatric Cardiac Critical Care Consortium, Annual Meeting, 2018 - present

ii. Regional

- a. Southeast Pediatric Cardiology Society, Annual Meeting, 2015

14. Consultantships/Advisory Boards

Adviser, Global Center for Medical Innovation, Atlanta, Georgia, 2016 – Present

15. Honors and Awards

- a. National Merit Scholar, 1993
- b. Research Fellowship, Endocrine Society, 1995

- c. Summer Research Fellow, UCSF (grant from Harvard Medical School), 1998
- d. Research Grant, Harvard Medical School, 2000 – 2001
- e. Gerald S. Foster Award (for service), Harvard Medical School, 2002
- f. American College of Cardiology Fellow-in-Training Travel Grant, 2010
- g. Sibley Heart Center Cardiology, Physician High Performance Award, 2014

16. Society Memberships

- a. American Association of Physicians of Indian Origin, 1997 - Present
- b. Massachusetts Medical Society, Medical Student member, 1997 - 2002
- c. American Academy of Pediatrics, 2002 - Present
- d. American Heart Association, 2001 - Present
- e. Western Society of Pediatric Cardiology, 2005 - 2010
- f. American College of Cardiology, 2006 - Present
- g. Pediatric Cardiac Intensive Care Society, 2008 - Present
- h. Southeast Pediatric Cardiovascular Society, 2010 - Present
- i. Society of Critical Care Medicine, Pediatric Section, 2011 - Present

17. Organization of Conferences (organizer or served as chair)

- a. National and International:
 - i. Administrative Positions:
 - a. Organizing Committee member, PCICS Annual Meeting, 2017, Washington, DC
 - b. Program Committee Member, PCICS Annual Meeting, 2018, Miami FL
 - c. Program Committee Member, Annual PC4/PAC3 Conference Program, 2019, Ann Arbor MI
 - d. Program Committee Member, PCICS Annual Meeting, 2019 London UK
 - e. Co-Chair, Program Committee, PCICS Annual Meeting, 2020 Virtual
 - f. Program Committee Member, Annual PC4 Conference Program, Virtual 2020
 - g. Program Committee Member, PCICS Annual Meeting, 2021 Virtual
 - h. Program Committee Member, PCICS Annual Meeting, 2022, Miami FL
 - i. Co-Chair, Critical Care Tract, World Congress of Pediatric Cardiology and Cardiac Surgery, 2023, Washington, DC
 - ii. Sessions as Chair:
 - a. "Necessity Is the Mother of Innovation", PCICS, 2017, Washington, DC
 - b. "The Future of Clinical Decision Making," PCICS, 2018, Miami FL
 - c. "Nutrition, Feeding Practices, Failure to Thrive", PCICS, 2019, London UK
 - d. "The Future of the CICU", PCICS, 2020, Virtual
 - e. "CICU 2021 and Beyond: Cardiac Intensive Care 2021", PCICS, 2021, Virtual
- j. Institutional:
 - i. Administrative Positions:
 - a. Director, Pediatric Cardiology, Morbidity and Mortality Conference, 2017 – Present

18. Clinical Service Contributions

Nikhil Chanani

My primary clinical commitment is to the CICU at CHOA, where I do between 20-26 weeks of dedicated CICU service a year, along with 30-40 inpatient call nights a year. In addition, I attend regularly on the Cardiology consult service. In the past, I have also had a clinic for patients with Pulmonary Hypertension.

As the medical director for quality, I have helped to lead a number of guidelines and policies that have impacted our patients:

- Led service line-based initiative on hospital acquired infections that dramatically lowered our rate of surgical site infections, blood stream infections, catheter associated urinary tract infections, and pneumonias
- Developed a guideline for necrotizing enterocolitis that has standard our diagnostic and treatment plans
- Developed multiple order sets and templates that have improved our communication, standardized our documentation and improved our coding practices
- Worked with nursing to establish family centered care, including family centered rounds and outreach programs
- Worked with pharmacy, infection control and other providers to established EMR based protocols that have helped to minimize unnecessary lab draws and rationalize medication use

19. Community Outreach

- a. Chairperson, South Asian Health Forum, Boston, Massachusetts, 1998
- b. Science Club Speaker, The Paideia School, Atlanta, Georgia, 2012 - Present
- c. Member, Emerging Leaders for Children's, Atlanta, Georgia, 2014 – 2017
- d. "How to be Involved in your Child's Care While Hospitalized", Kids at Heart Conference, Atlanta, Georgia, 2013
- e. Class Speaker, Immersions, The Paideia School, Atlanta, Georgia, 2021
- f. Class Speaker, Immersions, The Paideia School, Atlanta, Georgia, 2022

20. Formal Teaching

a. Medical Student Teaching

- i. Course Director, "Mending Broken Hearts", M2 Foundations Elective, Emory University School of Medicine, 2017-2019, 20 hours/year
- ii. Mentor, Discovery Program, Emory University School of Medicine, 2014 – 2017, 30 hours/year

b. Graduate Programs:

i. Residency Programs:

- a. Pediatric Resident Conference Series, UCSF and San Francisco General Hospital, 2005 – 2008, 4 hours/year
- b. Pediatric Resident Conference Series, Lucille Packard Children's Hospital, 2008 – 2010, 4 hours/year

ii. Fellowship Programs:

- a. Pediatric Cardiology Fellows Lecture Series, Emory University and CHOA, 2010 – Current, 3 hours/year

- b. Neonatology Fellows Lecture Series, Emory University and CHOA, 2011 – Current, 3 hours/year
- c. Cardiovascular Intensive Care Lecture Series, Emory University and CHOA, 2013 – Current, 10 hours/year
- iii. Master's and PhD Programs:
 - Course Instructor, Healthcare Design of the Future, Georgia Tech, 2017, 15 hours/year
- c. Other Categories
 - i. Small Group leader – Major Organ Systems, UCSF School of Medicine, 2004 – 2007,
 - ii. Teaching Fellow, Pediatric Cardiology, Pediatric Residency Training Program, UCSF, 2005 – 2008
 - iii. Lab Instructor, Introduction to the Morphology of Congenital Heart Disease UCSF School of Medicine, 2006
 - iv. Small Group instructor – Cardiology Lab, Stanford Medical School, 2009
 - v. “Sound Rounds” – Bedside Teaching with New Nurses in the CICU orienting them to murmurs, CHOA, 20 hours/year, 2010 - Present

21. Supervisory Teaching

- a. PhD Students Directly Supervised:
 - i. Ryan Hoffman, Georgia Tech, 2014 – present
 - ii. Theruni Pethiyagoda, Georgia Tech, 2014 – 2016
 - iii. Eric Byun, Georgia Tech, 2016 – 2017
 - iv. Janani Venugopalan, Georgia Tech, 2017-2018
 - v. Amy Kolwaite, Emory University, 2020 - Present
- b. Postdoctoral Fellows Directly Supervised in the Cardiac ICU at CHOA:
 - i. Shriprasad Deshpande, 2010 – 2011, Associate Professor of Pediatrics, Washington, DC
 - ii. Scott Gatlin, 2012 – 2013, Attending Physician, Dallas, Texas
 - iii. Ryan Wilkes, 2015 – 2016, Attending Physician, Charlotte, NC
 - iv. Rachel Sirignano, 2018 – 2019, Attending Physician, UCLA, Los Angeles, CA
 - v. Christin Carroll, 2019 – 2020, Attending Physician, Nemours Medical Center, Dupont, DE
- c. Thesis Committees:
 - i. Chih-wen Cheng, Biomedical Engineering, Georgia Tech, 2014
 - ii. Jinha Lee, Biomedical Engineering, Georgia Tech, 2016
 - iii. Janani Venugopalan, Biomedical Engineering, Georgia Tech, 2017
 - iv. Li Tong, Biomedical Engineering, Georgia Tech, 2020
 - v. Ryan Hoffman, Biomedical Engineering, Georgia Tech 2021

22. Lectureships, Seminar Invitations, and Visiting Professorships

- a. National and International

- i. "Networking Chat: Program Committee", Pediatric Cardiac Intensive Care Society, 16th International Conference, Virtual 2020
- b. Regional
 - i. "Post Heart Transplant: Right Sided Heart Failure", Pediatric Solid Organ Transplant Workshop, Atlanta, Georgia, 2014
 - ii. "Neonatal Arrhythmias", Neonatology Grand Rounds, Northside Hospital, 2016
- c. Institutional
 - i. Guest Lecturer, Emory School of Nursing, Nurse Practitioner Program, May 2011
 - ii. "Neonatal Cardiac Emergencies", Neonatal Transport Lecture Series, Atlanta, Georgia, 2014
 - iii. "Pediatric Syncope", Pediatric Grand Rounds, CHOA Scottish Rite, 2014
 - iv. "Mystery Case", Pediatric Grand Rounds, Grady Memorial Hospital, 2014

23. Invitations to National/International, Regional, and Institutional Conferences

- a. National and International
 - i. Neonatology 2011, "*PDA: - To Close or Not to Close*", Atlanta GA, 2011
 - ii. VPS Users Group Meeting, "*Peri-operative Characteristics: How We use VPS Data*", Los Angeles CA, 2013
 - iii. Cardiac Neurodevelopmental Symposium, "*Neuroprotective Care in the Hospital: Empirically Supported or Wishful Thinking?*", Atlanta GA 2014
 - iv. Pediatric Cardiac Intensive Care Society, 10th International Conference, "*Long Term Outcomes in Heterotaxy Syndrome*", Miami FL, 2014
 - v. Pediatric Cardiac Intensive Care Society, 12th International Conference, "*Norwood Management*", Miami FL, 2016
 - vi. Joint Conference on Advances in Pediatric Cardiovascular Disease Management, "*Mortality and Morbidity: How Does Your Center Do It?*", Atlanta GA, 2018
 - vii. Multi-Societal Database Meeting, "*Update on PC4.*" Atlanta GA, 2018
 - viii. Panelist, "*Quality Improvement Shark Tank*", Pediatric Cardiac Intensive Care Society, 14th International Conference, Miami FL, 2018
 - ix. Moderator, Abstract Session, Pediatric Cardiac Intensive Care Society, 14th International Conference, Miami FL, 2018
 - x. Pediatric Cardiac Intensive Care Society, 14th International Conference, "*What you should know about improvement in 15min (or less)*", Miami FL, 2018
 - xi. The 35th Annual Children's National Symposium: ECMO & the Advanced Therapies for CardioRespiratory Failure, "*ECMO in Bidirectional Glenn and Fontan patients,*" Keystone CO, 2019
 - xii. Annual PC4/PAC3 Conference Program, "*Reconciliation of data fields and definitions across registries*", Ann Arbor MI, 2019
 - xiii. Annual PC4/PAC3 Conference Program, "*Elevator talk: how to present PC4 and PAC3 data live to your favorite administrator*", Ann Arbor MI, 2019
 - xiv. Pediatric Cardiac Intensive Care Society, 15th International Conference, "*Con: Big Data and Algorithms Will Perform Better Than Doctors/Nurses within the Next Five Years*", London UK 2019
 - xv. Panelist, Pediatric Cardiac Intensive Care Society, 16th International Conference, "*The Future of the CICU*", Virtual 2020
 - xvi. Annual PC4 Conference Program, "*PC4 Site Questionnaire: Results*", Virtual 2020

- xvii. Annual PC4 Conference Program, "*PC4 Database Committee: Updates*", Virtual 2020
 - xviii. Moderator, American Heart Association, Scientific Sessions, "*Optimizing CHD Outcomes: Improving the Things We Do Now*", Virtual 2021
- b. Regional
- i. "Diagnosis and Management of Pulmonary Arterial Hypertension", National Association of Pediatric Nurse Practitioners-Georgia Chapter, Atlanta, Georgia, 2013
 - ii. The Pediatric Cardiac Rehab Patient, "*Approach to the Pediatric Patient with Heart Disease: Pushing the Limits*". Atlanta GA 2016

24. Abstract Presentations at National/International, Regional, and Institutional Conferences

1. **Chanani NK***, Cowan DB, Takeuchi K, Poutias DN, Garcia LM, del Nido PJ, McGowan FX Jr. "Differential Effects of Amrinone and Milrinone on Cardiac Inflammation", American Heart Association Scientific Sessions, Anaheim CA, 2001 (oral presentation)
2. **Chanani NK***, Chiesa NA, Dubin AM, Avasarala K, Van Hare GF, Collins KK. "Cryoablation for Atrioventricular Nodal Reentrant Tachycardia (AVNRT) in 154 Young Patients: 4mm vs. 6mm Catheter Tip Sizes", American Heart Association Scientific Sessions, Orlando FL, 2007 (oral presentation)
3. Iannucci G*, Oster M, **Chanani NK**, Kanter K, Mahle W. "Does 24/7 In-House Attending Physician Coverage Improve Outcomes Following Congenital Heart Surgery?" Pediatric Cardiac Intensive Care Society 9th International Conference, Miami FL, 2012. (poster presentation)
4. Bhatia A*, Lawrence P, Simon D, **Chanani NK**, Kanaan U, Kogon B. "The Potts Shunt as a Management Strategy in a Child with Severe Pulmonary arterial Hypertension" 6th Annual Pulmonary Hypertension Conference, San Francisco CA, 2013. (poster presentation)
5. Cheng CW*, **Chanani NK**, Maher KO, Wang MD. "icuARM-II: Improving the Reliability of Personalized Risk Prediction in Pediatric Intensive Care Units." The 5th ACM Conference on Bioinformatics, Computational Biology, and Health Informatics, Newport Beach CA, 2014. (poster presentation)
6. Wolf M*; Deshpande S, Iannucci G, Price M, Maher K, **Chanani NK**. "Characteristics of increased incidence of Necrotizing Enterocolitis in a Cardiac Intensive Care Unit." Society for Critical Care Medicine Critical Care Congress, Phoenix AZ 2015. (poster presentation)
7. Cheng C, Maher K, Wang M, **Chanani NK***. "Data Driven Personalized Risk Prediction in Pediatric Intensive Care Units." Society for Critical Care Medicine Critical Care Congress, Phoenix AZ 2015. (poster presentation)

8. Hailey C*, **Chanani NK**, Chhabra J, Smitley L. "Ultra Wideband Monitoring in the Pediatric Patient." American Academy of Pediatrics, National Conference and Exhibition, Washington DC, 2015. (poster presentation)
9. Sha Y, Venugopalan J, **Chanani NK**, Maher K, and Wang MD. "A Novel Temporal Similarity Measure for Patients Based on Irregularly Measured Data in Electronic Medical Records." Conference on Bioinformatics, Computational Biology and Health Informatics (ACM-BCB), Annual International Conference, Las Vegas, NV, 2016. (oral presentation)
10. Wolf M*, Glanville M, Mahle WT, Maher KO, **Chanani NK**, Deshpande S. "Clinical Practice Guideline Lowering Threshold Hemoglobin in Cyanotic Infants Postoperatively." Society for Critical Care Medicine Critical Care Congress, Orlando FL, 2016. (poster presentation)
11. **Chanani NK***, Murphy K, Spicer-Gordon S, Service B, Mastin L, Woodall K, Newberry L. "It Takes a Village: One Center's Interdisciplinary Approach to SSI Reduction." Emory Quality Conference, Atlanta GA, 2017. (poster presentation)
12. Cutts RP*, Short HL, Clifton MS, Travers C, **Chanani NK**, Oster ME, Wulkan ML, Raval MV. "Comparing Outcomes Between Gastrostomy Alone and Gastrostomy with Nissen Fundoplication for Children with Severe Congenital Heart Defects." Department of Surgery - William C. Wood Research Symposium 2017. Emory University School of Medicine. Atlanta GA; March 2017 (poster presentation)
13. Williams F*, Gruenewald D, Hamrick S, Meisel J, Clarke S, Tillman N, **Chanani NK**. "Diagnosis and Management of Necrotizing Enterocolitis (NEC) in Pediatric Cardiac Patients." CHOP Cardiology, Phoenix AZ, 2018.
14. Bloch D*, Gruenewald D, Carter A, Gonzalez M, **Chanani NK**, Shane A. "Heart of Culturing: Requiring an Indication for Ordering Cultures in a Cardiac Service Line." Pediatric Academic Societies, 2018, Toronto, Canada. (poster presentation)
15. DeWitt AG*, Rossano JW, Bailly DK, Bhat PN, **Chanani NK**, Kirkland BW, Moga MA, Owens GE, Retzliff LB, Zhang W, Banerjee M, Costarino AT, Bird GL, Gaies MG. Modifiable factors predict mortality after prolonged critical illness following congenital heart surgery. American College of Cardiology, 2018, Orlando FL. (poster presentation)
16. Gaies M*, Ghanayem N, Alten J, Costello J, Lasa J, **Chanani NK**, Shin A, Retzliff L, Zhang W, Pasquali S, Banerjee M, Tabbutt S. "Measuring Pediatric Cardiac Intensive Care Unit Quality in Medical Admissions." American College of Cardiology, 2018, Orlando FL. (oral presentation)
17. Thaker P, Lee E, Zhang P, **Chanani NK**. "A Systems Approach to Examine Hospital Acquired Infections in a Pediatric CICU." Pediatric Cardiac Intensive Care Society Annual Meeting, 2020, Virtual (poster presentation)

25. Research Focus

- My research focuses on pediatric cardiovascular intensive care. I am involved with Emory/GA Tech looking at novel devices and large data monitoring systems for predictive analytics. I also work with other centers and local experts on techniques to improve the quality care for our hospitalized patients and to measure those improvements.

26. Grant Support

a. Active Support

i. Federally Funded:

- a. Scientific Liaison: "COMparison of Methods of Pulmonary blood flow Augmentation in neonates: Shunt versus Stent (The COMPASS Trial)", NIH/NHLBI U24HL135691, 2020 - Present

ii. Private Foundation Funded:

iii. Contracts:

- a. Co- Investigator: "Single-Dose Study to Evaluate the Pharmacokinetics, Pharmacodynamics, Safety, and Tolerability of Apixaban in Pediatric Subjects at Risk for a Venous or Arterial Thrombotic Disorder." Bristol-Myers Squibb CV 185-118, \$53,934, 2013 – Present

iv. Other:

- a. Principal Investigator: "cicuCAD: Developing Early Cardiac Arrest Detection in the Pediatric Cardiac Intensive Care Unit Using BedMaster Streaming Data." Center for Pediatric Innovation, Pediatric Research Center, CHOA/Emory/Georgia Tech, \$50,000, 2016 – Present
- b. Investigator: "Health Equity Dashboard: Reducing healthcare disparities with actionable knowledge", The 1998 Society, CHOA, \$ 73,250, 2021 – Present.

c. Previous Support

- i. Training Grant, Research Training in Cardiovascular Development NIH/NHLBI T32 HL007544, 2006-2007 (Principal Investigator: Harold Bernstein, UCSF)
- ii. Sub-Investigator: "Pediatric Intensive Care Units at Emory University's Trial in Glycemic Control" NIH Grant 1R01HL096871 - 01A1 Award, PI: Kevin Maher, MD, 2010 – 2013
- iii. Sub-Investigator: "Role of Inflammatory Response in Brain Injury following neonatal Mediators in Cardiac Surgery". Thrasher Foundation Grant, PI: William Mahle, MD, \$357,972, 2010 – 2014
- iv. Co-Principal Investigator (Site-specific): "Therapeutic Hypothermia after Pediatric Cardiac Arrest". NIHHLBI 5U01HL094345-04, \$111,097, 2012 – 2017
- v. Principal Investigator: "A-PEWS: Analytical Pediatric Early Warning System for Cardiac Intensive Care Units (CICU)", \$50,000, 2013 – 2014
- vi. Principal Investigator: "icuCIA: Development of Intelligent ICU Clinical Intervention Assistant Devices for Pediatric Patient Care." Center for Pediatric Innovation, Pediatric Research Center, CHOA/Emory/Georgia Tech, \$60,000, 2014 – 2015

- vii. Principal Investigator: "Development of Intelligent ICU Clinical Intervention Assistant Device for Pediatric Patient Care." Center for Pediatric Innovation, Pediatric Research Center, CHOA/Emory/Georgia Tech, \$5,000, 2015 – 2016
- viii. Co-Investigator: "Corticosteroid Therapy in Neonates Undergoing Cardiopulmonary Bypass." NIH/NIHLBI Grant 5RO1HL112968-02, PI: Eric Graham, MD (Medical University of South Carolina), \$368,750, 2013 – 2018
- ix. Co-Investigator: "Heart of Culturing", The Children's Care Network Quality Program Grant, \$5,000, 2017 – 2018
- x. Co-Investigator: "A multiple ascending dose study of tadalafil to assess the pharmacokinetics and safety in a pediatric population with pulmonary arterial hypertension". Eli Lilly H6D-MC-LVIG, \$77,000, 2013 – 2017
- xi. Co-Investigator: "A Double Blind Efficacy and Safety Study of the Phosphodiesterase Type 5 Inhibitor Tadalafil in Pediatric Patients with Pulmonary Arterial Hypertension". Eli Lilly H6D-MC-LVHV, \$148,000, 2013 – 2018
- xii. Principal Investigator: "A randomized controlled trial to evaluate growth velocity and clinical outcomes of infants with single ventricle physiology fed an exclusive human milk diet with early nutritional fortification following surgical repair." Prolacta Bioscience, Inc., \$80,559, 2017 - 2019

27. Bibliography

a. Published and Accepted Research Articles in Refereed Journals:

1. Taylor WE, Najmabadi H, Strathearn M, Jou NT, Liebling M, Rajavashisth T, **Chanani N**, Phung L, Bhasin S. Human stem cell factor promoter deoxyribonucleic acid sequence and regulation by cyclic 3',5'-adenosine monophosphate in a Sertoli cell line. *Endocrinology* 1996 Dec; 137(12): 5407-14.
2. **Chanani NK**, Cowan DB, Takeuchi K, Poutias DN, Garcia LM, del Nido PJ, McGowan FX Jr. Differential effects of amrinone and milrinone upon myocardial inflammatory signaling. *Circulation* 2002 Sep 24; 106(12 Suppl 1): I284-9.
3. Jun SL, **Chanani NK**, Moore P, Higgins CB. Images in cardiovascular medicine. Magnetic resonance imaging of a posttraumatic myocardial infarction and ventricular septal defect with a closure device in place. *Circulation* 2007 Jan 16; 115(2):e13-5.
4. **Chanani NK**, Chiesa NA, Dubin AM, Avasarala K, Van Hare GF, Collins KK. Cryoablation for Atrioventricular Nodal Reentrant Tachycardia in Young Patients: Predictors of Recurrence. *Pacing Clin Electrophysiol* 2008 Sep; 31(9):1152-9.
5. Das S, **Chanani NK**, Deshpande S, Maher KO. B-type natriuretic Peptide in the recognition of critical congenital heart disease in the newborn infant. *Pediatr Emerg Care*. 2012 Aug;28(8):735-8.
6. Hebson CL, **Chanani NK**, Rigby MR, Wolf MJ, Deshpande SR, Montegna LM, Maher KO. Safe and Effective Use of a Glycemic Control Protocol for Neonates in a Cardiac ICU. *Pediatr Crit Care Med*. 2013 Mar;14(3):284-9.

7. Wolf MJ, **Chanani NK**, Heard ML, Kanter KR, Mahle WT. Early renal replacement therapy during pediatric cardiac extracorporeal support increases mortality. *Ann Thorac Surg*. 2013 Sep;96(3):917-22.
8. Cheng CW, **Chanani NK**, Venugopalan J, Maher KO, Wang MD. icuARM – An ICU Clinical Decision Support System Using Association Rule Mining. *IEEE J Transl Eng Health Med*. 2013 Nov 21;1(1):122-31 .
9. Iannucci GJ, Oster ME, **Chanani NK**, Gillespie SE, McCracken CE, Kanter KR, Mahle WT. The Relationship Between In-House Attending Coverage and Nighttime Extubation Following Congenital Heart Surgery. *Pediatr Crit Care Med*. 2014 Mar;15(3):258-63
10. Gaies M, Cooper DS, Tabbutt S, Schwartz SM, Ghanayem N, **Chanani NK**, Costello JM, Thiagarajan RR, Laussen PC, Shekerdemian LS, Donohue J, Willis GM, Gaynor JW, Jacobs JP, Ohye RG, Charpie JR, Pasquali SK, Scheurer MA. Collaborative quality improvement in the cardiac intensive care unit: development of the Paediatric Cardiac Critical Care Consortium (PC4). *Cardiol Young*. 2014 Aug 28:1-7.
11. Cheng CW, **Chanani NK**, Maher K, Wang. icuARM-II: improving the reliability of personalized risk prediction in pediatric intensive care units. *ACM BCB*. 2014 Sep;2014:211-219.
12. Alten JA, Rhodes LA, Tabbutt S, Cooper DS, Graham EM, Ghanayem N, Marino BS, Figueroa MI, **Chanani NK**, Jacobs JP, Donohue JE, Yu S, Gaies M. Perioperative feeding management of neonates with CHD: analysis of the Pediatric Cardiac Critical Care Consortium (PC4) registry. *Cardiol Young*. 2015 Dec;25(8):1593-601.
13. Teele SA, Jacobs JP, Border WL, **Chanani NK**. Heterotaxy Syndrome: Proceedings From the 10th International PCICS Meeting. *World J Pediatr Congenit Heart Surg*. 2015 Oct;6(4):616-29.
14. Pethiyagoda T, **Chanani NK**, Cheng C, Wang MD. PEP-COR: A risk prediction model for pediatric intensive care units utilizing ventilator days and length of stay. *IEEE EMBS Int Conf Biomed Health Inform*. 2016 Feb; 86–89.
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