CURRICULUM VITAE

Benjamin T. Kopp

PRESENT TITLE AND AFFILIATION

Assistant Professor
Department of Pediatrics
The Ohio State University College of Medicine
Columbus, Ohio

Pulmonologist
Section of Pediatric Pulmonology
Nationwide Children's Hospital
Columbus, Ohio

Principle Investigator
Center for Microbial Pathogenesis
The Research Institute at Nationwide Children's Hospital
Columbus, Ohio

EDUCATION

UNDERGRADUATE EDUCATION

05/2002	Miami University Oxford, Ohio	B.A. Zoology

GRADUATE EDUCATION

06/2006	The Ohio State University Columbus, Ohio	M.D.

POST-GRADUATE EDUCATION & TRAINING

2006-2009	Nationwide Children's Hospital Columbus, Ohio	Residency Pediatrics
2009-2012	Nationwide Children's Hospital Columbus, Ohio	Fellowship Pediatric Pulmonology

ACADEMIC APPOINTMENTS

2012-present	Assistant Professor of Pediatrics The Ohio State University Columbus, Ohio

STATE LICENSURE AND CERTIFICATIONS

LICENSURE

2009 Ohio (active)

CERTIFICATIONS

2009 American Board of Pediatrics
2012 Sub-board Pediatric Pulmonology

SERVICE

INSTITUTIONAL/LOCAL ACTIVITIES

2009-present Physician Liaison
Cystic Fibrosis Foundation of Central Ohio
Nationwide Children's Hospital
Columbus, Ohio

2012-present Member, Co-organizer
Cystic Fibrosis Translational Research Committee
Nationwide Children's Hospital
Columbus, Ohio

2012-2013 Member
Cystic Fibrosis Adult Transition Committee
Nationwide Children's Hospital
Columbus, Ohio

2012-2013 Member
Graduate Medical Education Committee
Nationwide Children's Hospital
Columbus, Ohio

2013-2014 Application Screener
OSU College of Medicine
Ohio State University
Columbus, Ohio

NATIONAL ACTIVITIES

2012-present Member
American Thoracic Society Web Committee
National Online Journal Club Co-Chair

HONORS AND AWARDS

2002	Dean's Scholar for Undergraduate Research Miami University Oxford, Ohio
2005	Orr Medicine Scholarship The Ohio State University Columbus, Ohio
2006	Pediatric Departmental Award for Academic Excellence The Ohio State University Columbus, Ohio
2010-2012	NIH Loan Repayment Award Nationwide Children's Hospital Columbus, Ohio
2010-2011	Distinguished Clinical Fellow of the Year Davis Heart/Lung Research Institute, OSU Columbus, Ohio
2011	Clinical Fellow Poster Competition Winner, DHLRI Research Day The Ohio State University Columbus, Ohio
2011	Clinical Fellow Poster Competition Winner, NCH Research Week Nationwide Children's Hospital Columbus, Ohio
2011 & 2012	ATS Travel Award Nationwide Children's Hospital Columbus, Ohio
2012	OSUMC Research Day Travel Award The Ohio State University Columbus, Ohio

RESEARCH SUPPORT

ONGOING RESEARCH

PEER REVIEWED

013100 Kopp (Co-PI) 10/1/12-9/31/13
PHPID
Compromised autophagy allows *B. cenocepacia* persistance in macrophages derived from CF
The goal is to determine if autophagy stimulating therapeutics can clear *B. cenocepacia* infection
Role: Co-PI w/ Drs. Amer and Gavrilin

Nationwide Children's Hospital Intramural Grant Kopp (Co-PI) 8/1/13-7/31/15
Determining Infectious Signatures in CF (DISC)
Goal to determine early microarray based detection of pathogens and inflammation in CF infants
Role: Co-PI with Drs. Thompson and Mejias

ARNO Therapeutics infectious disease drug discovery program Kopp (PI) 10/1/13-9/31/14
AR-12 for the treatment of *Burkholderia cenocepacia*
The goal is to test a novel autophagy inducing compound for clearing *B. cenocepacia*.
Role: PI

709810 McCoy (PI) 8/1/10-7/31/13
Vertex Pharmaceuticals
A Phase 2, Multicenter, Double-Blinded, Placebo-Controlled, Multiple-Dose Study to Evaluate Safety, Tolerability, Efficacy, Pharmacokinetics and Pharmacodynamics of VX-809 Alone and in Combination with VX-770 in Subjects with CF, Homozygous or Heterozygous for the F508del-CFTR Mutation
Role: Sub Investigator

793112 McCoy (PI) 8/1/11-7/31/15
Seattle Children's Research Institute
Early Intervention in Cystic Fibrosis Exacerbation (eICE) Study
Role: Sub Investigator

750111 Kirkby (PI) 7/1/11-6/31/13
PACE
Assessment of pulmonary hydrolases in cystic fibrosis
Role: Sub Investigator

949612 McCoy (PI) 11/1/12-10/31/13
KaloBios Phamaceuticals
A Phase 2, Randomized, Double-blind, Placebo-controlled, Repeat-dose Study of KB001-A in Subjects with Cystic Fibrosis Infected with Pseudomonas aeruginosa
The goal is to determine the impact of KB001 as an anti-inflammatory agent in CF.
Role: Sub Investigator

963113 McCoy (PI) 1/15/13-1/14/13
N30 Pharmaceuticals
A Phase 1b, Randomized, Double-Blind, Placebo-Controlled, Dose Escalation Study of N6022 to Evaluate Safety and Pharmacokinetics in Subjects with Cystic Fibrosis Homozygous for the F508del-CFTR Mutation

Role: Sub Investigator

968513 McCoy (PI) 3/1/13-8/31/14
Savara, Inc
A phase 2, randomized, double blind, placebo-controlled study of study drug for the treatment of persistent methicillin-resistant Staphylococcus aureus lung infection in cystic fibrosis patients
Role: Sub investigator

971313 McCoy (PI) 3/1/13-2/28/14
Vertex Pharmaceuticals Inc
A Phase 3, Randomized, Double-Blind, Placebo-Controlled, Parallel-Group Study to Evaluate the Efficacy and Safety of Lumacaftor in Combination With Ivacaftor in Subjects Aged 12 Years and Older With Cystic Fibrosis, Homozygous for the F508del-CFTR Mutation
Role: sub investigator

Effect of Multivitamin Supplement on Inflammation and Oxidative Stress in CF
Pending IRB review
Role: sub investigator

COMPLETED RESEARCH SUPPORT

PEER REVIEWED

244810 Kopp (PI) 2010-2012
Nationwide Children's Hospital Intramural
CFTR regulation of Caspase-1 during Burkholderia cepacia infection
The goal was to elucidate inflammatory signaling mechanisms for Bc.
Principle Investigator

PENDING RESEARCH SUPPORT

PEER REVIEWED

K08 Kopp (PI) 12/1/13-11/30/18
Autophagy therapeutics for phagocytic clearance of Burkholderia cenocepacia in CF
The goal of this study is to define the mechanisms of autophagy mediated clearance of *B. cenocepacia* by CF macrophages
Principle Investigator

PUBLICATIONS

ARTICLES IN PEER REVIEWED JOURNALS

1. Kotrange S, **Kopp B**, Akhter A, Abdelaziz D, Abu Khweek A, Caution K, Abdulrahman B, Wewers MD, McCoy K, Marsh C, Loutet SA, Ortega X, Valvano MA, Amer AO. "Burkholderia cenocepacia O polysaccharide chain contributes to caspase-1-dependent

IL-1B production in macrophages." J Leukoc Biol. 2010 Dec 22.

2. **Kopp B**, Pastore M, Sturm A, Holtzlander M, Westman J. "A novel exon duplication of the cystic fibrosis transmembrane conductance regulator in a patient presenting with adult onset recurrent pancreatitis." Pancreas. 2011 July 1.
3. **Kopp B**, Wang W, Chisolm D, Kelleher K, McCoy K. "Inpatient Health Care Trends among Adult Cystic Fibrosis Patients in the U.S." Pediatric Pulmonology. 2011 Sept 7.
4. Abdulrahman BA, Khweek AA, Anwari Akhter**,** Caution K, Kotrange S, Abdelaziz DH, Newland C, Rosales-Reyes R, **Kopp B**, McCoy K, Mentione R, Schlesinger LS, Gavrillin MA, Wewers MD, Valvano MA and Amer AO. "Autophagy stimulation by Rapamycin suppresses lung inflammation and infection by *Burkholderia cenocepacia* in a model of cystic fibrosis." *Autophagy.* 2011 Nov 1.
5. **Kopp BT**, Abdulrahman BA, Khweek AA, Kumar SB, Akhter A, Montione R, Tazi MF,Caution K, McCoy K, Amer AO. "Exaggerated inflammatory responses mediated by burkholderia cenocepacia in human macrophages derived from cystic fibrosis." Biochem Biophys Res Commun. 2012 Jun 20.
6. **Kopp B**, Rosen K, O'Donovan J, Sheikh S. "Cardiac fibroma, anomalous pulmonary venous course and persistent pneumonia in a patient with Gorlin syndrome". Pediatric Pulmonology. 2012 Nov 28.
7. Hayes, D Jr, Ramanathan C, **Kopp B.** "BMPR2 missense mutation p.K230N and pulmonary arterial hypertension". Pediatric Pulmonology. 2012 Nov 8.
8. **Kopp B**, Kirkby S, Hayes D, Flanigan K. "Diabetic myonecrosis in a cystic fibrosis patient." Respiratory Care. 2013 Jan 29.
9. **Kopp B,** Hayes D, Ratkiewicz M, Baron N, Splaingard M. "Light exposure and depression in hospitalized adults with cystic fibrosis." J Affective Disorders. 2013 March.
10. Meadows J, **Kopp B**, Shook L, Ballard H, Hayes D. Elevated high-sensitivity C-reactive protein in preterm infants with pulmonary colonization with Ureaplasma. Journal of Thoracic Diseases. 2013 April.
11. Hayes, D Jr., Mansour H, Kirkby S, Yates A, **Kopp B**, McCoy K, Daniels C. Right heart catheterization measuring central hemodynamics in cystic fibrosis during exercise. Respiratory Medicine. 2013 May.
12. Hayes D Jr, Baker PB, **Kopp BT**, Kirkby S, Galantowicz M, McConnell PI, Astor TL. Surveillance transbronchial biopsies in infant lung and heart-lung transplant recipients. Pediatr Transplant 2013 Aug.

EDITORIALS

1. Unearthing the Truth About Bacterial Reservoirs in Cystic Fibrosis. **Kopp B**. Air and Water Borne Diseases Journal. 2012.

ABSTRACTS

1. Hayes D Jr, **Kopp B**, Mansour HM, Kirkby S, Yates AR, McCoy KS, Daniels CJ. Exercise-induced Pulmonary Arterial Hypertension in Pediatric and Young Adult

Patients with Cystic Fibrosis. Chest 2012.

2. Abdulrahman B, Tazi M, **Kopp B**, Amer A. Defective autophagy activity contributes to increased IL-1β production during Burkholderia cenocepacia infection. International Burkholderia Cepacia Working Group 2013.
3. Hayes D Jr, **Kopp B**, Preston T, Kirkby S, Whitson B. *Survival of patients with CF on ECMO.* EuroELSO congress 2013.
4. Assani, K, Amer A, **Kopp B.** Autophagy stimulation via IFN-γ treatment promotes clearance of Burkholderia cenocepacia infected human CF macrophages. CMIB 2013
5. Assani, K, Amer A, **Kopp B.** Autophagy stimulation via IFN-γ treatment promotes clearance of Burkholderia cenocepacia infected human CF macrophages. Midwest Microbial Pathogenesis Conference 2013
6. Tazi, M, **Kopp B**. , Amer, A, et al. Effect of the MIR-17-92A cluster on the autophagy response to *Burkholderia cenocepacia.* Midwest Microbial Pathogenesis Conference 2013.
7. Hayes D Jr, **Kopp B**, Preston T, Kirkby S, Mansour H, Whitson B. Survival of CF Patients on ECMO: Analysis of the ELSO Registry. NACFC 2013.

EDITORIALS AND REVIEW ACTIVITIES

EDITOR/SERVICE ON EDITORIAL BOARD(S)

2012-present Member, Air and Water Borne Diseases Journal

JOURNAL REVIEWER

2013-present Respiratory Care Journal, ad hoc reviews
2013-present Pediatric On Call, reviewer/sub-editor
2013-present PLOS ONE, ad hoc reviews

TEACHING

COURSES TAUGHT

2009-2012 Pulmonary Cough Conference
Nationwide Children's Hospital
Columbus, Ohio

2012-present Monthly Resident Pulmonary Lecture Series
Nationwide Children's Hospital
Columbus, Ohio

2012-present Attending Physician, Inpatient Ward and Consult Services
Nationwide Children's Hospital
Columbus, Ohio

2012-present Lung disease and GERD for surgical residents
Nationwide Children's Hospital
Columbus, Ohio

2013 Micro-organisms in CF- Nursing Skills Update

Nationwide Children's Hospital
Columbus, Ohio

2013 IFN-y mediated clearance of B. cenocepacia
NCH ID consortium

LECTURES/PRESENTATIONS

NATIONAL/INTERNATIONAL

2010 Burkholderia Cenocepacia Type 6 Secretion System and LPS are required for IL-1β Production in Macrophages.
Young Investigator's Respiratory Disease Forum. San Antonio, Texas

2010 A novel exon duplication of CFTR in a patient presenting with adult onset recurrent pancreatitis
North American Cystic Fibrosis Conference. Bethesda, Maryland

2011 Inpatient Health Care Trends among Adult Cystic Fibrosis Patients.
American Thoracic Society. Denver, Colorado

2011 Exaggerated Inflammatory Responses in CF Macrophages during Burkholderia Cenocepacia Infection
Young Investigator's Respiratory Disease Forum. Atlanta, Georgia

2011 Exaggerated Inflammatory Responses in CF Macrophages during Burkholderia Cenocepacia Infection
North American Cystic Fibrosis Conference. Anaheim, California

2012 Sugar Pains: Novel diabetic myonecrosis in a CF patient
American Thoracic Society. San Francisco, California

2012 Lighting up Inpatient Depression in CF
North American Cystic Fibrosis Conference. Orlando, Florida

2013 Autophagy stimulation by IFN-γ improves *B. cenocepacia* clearance in human CF macrophages
International Burkholderia Cepacia Working Group. Michigan

2013 Autophagic clearance of *Burkholderia cenocepacia*
American Thoracic Society. Philadelphia, Pennsylvania

2013 Detrimental effects of secondhand smoke exposure on infants with CF.
North American Cystic Fibrosis Conference. Salt Lake City, UT

2013 Vitamin D enhanced autophagic clearance of *B. cenocepacia* in CF

macrophages
North American Cystic Fibrosis Conference. Salt Lake City, UT

2013 Autophagy mediated clearance of *Burkholderia cenocepacia* in CF
International Congress on Bacteriology and Infectious Diseases.
Baltimore, MD -INVITED

LOCAL/REGIONAL

2011 Exaggerated inflammatory responses in human CF macrophages during Burkholderia cenocepacia infection
OSU/NCH Research Week
Columbus, Ohio

2012 Exaggerated inflammatory responses mediated by *B. cenocepacia* in CF
OSU/NCH Research Week
Columbus, Ohio

DIRECT SUPERVISION

RESEARCH ASSISTANTS

2012-present Kaivon Assani
B.S.
The Ohio State University
Columbus, Ohio
NCH Research Day Invited presentation/Travel Award 2013

SCHOLARY OVERSIGHT COMITTEES

2012-present Princy Ghera
Pulmonary Fellows
Nationwide Children's Hospital
Columbus, Ohio

2013-present Laura Rust
Emergency Medicine Fellow
Nationwide Children's Hospital
Columbus, Ohio

RESIDENTS/RESEARCH

12/2012 Lisa Sarzynski
Pediatrics
Nationwide Children's Hospital

Columbus, Ohio

2/2013 Sabrina Khalfoun
Pediatrics
Nationwide Children's Hospital
Columbus, Ohio

STUDENTS

2013-present Katharine O'Neil
Nationwide Children's Hospital

2013-present Dina Barghout
The Ohio State University

PROFESSIONAL MEMBERSHIPS AND ACTIVITIES

2005-present Member, Gold Humanism Honor Society
2006-present Fellow, American Academy of Pediatrics
Section on Pediatric Pulmonology
Section on Tobacco Control
2009-present Member, American Thoracic Society
2010-present Member, American College of Chest Physicians