

**BIOGRAPHICAL SKETCH**

Provide the following information for the Senior/key personnel and other significant contributors.  
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NAME: Rossow (Neely), Katelyn

eRA COMMONS USER NAME (credential, e.g., agency login): neelyk

POSITION TITLE: Instructor of Pediatrics, Division of Developmental Medicine

**EDUCATION/TRAINING**

INSTITUTION AND LOCATION	DEGREE (if applicable)	END DATE MM/YYYY	FIELD OF STUDY
Centre College, Danville, Kentucky	BS	05/2010	Biology
University of Louisville School of Medicine, Louisville, Kentucky	MD	05/2014	Medicine
St Vincent Pediatric Department, Indianapolis, Indiana	Resident	06/2017	Pediatrics
Vanderbilt University Medical Center, Nashville, Tennessee	Fellow	06/2020	Developmental Pediatrics
Vanderbilt University Medical Center, Nashville, Tennessee	Fellow	06/2020	Clinical Pharmacology
Vanderbilt University, Nashville, Tennessee	MPH	05/2020	Epidemiology

**A. Personal Statement**

As an Instructor of Pediatrics in the Division of Developmental Medicine with a background in Clinical Pharmacology, my research goal is to combine these two fields to improve the safety and efficacy of psychotropic drug use in children with developmental disabilities. I have personal and professional background in the difficulties of pharmacologic management in individuals with developmental disabilities. My fellowship training expanded my research skillset to include performing retrospective analysis using large data sets from the electronic health record. My fellowship projects included studying pediatric pharmacogenomics and the relationship of genotype to adverse events and response in children taking selective serotonin reuptake inhibitors and risperidone. I completed a Master of Public Health degree during my fellowship to further expand my ability to conduct epidemiological research. I am currently researching the role of copy number variants in important pharmacogenes and polygenic scores for autism for predicting medication adverse events in children with autism as funded through a Thrasher Early Career Award. My future research interests include improving the safety and efficacy of psychotropic medication use in children with autism spectrum disorders.

**B. Positions and Honors****Positions and Employment**

2014 – 2017 Intern and Resident, Pediatrics, St. Vincent Medical Center, Indianapolis, IN  
 2017 – 2020 Clinical Fellow Trainee, Developmental Pediatrics and Clinical Pharmacology, Vanderbilt University Medical Center  
 2020 - present Instructor of Pediatrics, Vanderbilt University Medical Center, Department of Pediatrics, Nashville, TN

**Other Experience and Professional Memberships**

2014 - present Member, American Academy of Pediatrics  
 2017 - present Member, Society for Developmental and Behavioral Pediatrics  
 2018 - present Member, American Society for Clinical Pharmacology and Therapeutics

## **Honors**

2016-2017	Pediatric Chief Resident, St. Vincent Medical Center, Indianapolis, IN
2019	Pediatric Academic Societies Travel Award for Young Investigators
2019-2020	Chief Pharmacology Fellow, Vanderbilt University Medical Center, Nashville, TN
2020	Keystone Symposia Scholarship
2020	Honorable Mention Abstract at Annual VUMC Research Symposium
2020	Clinical Research Abstract Award at Vanderbilt Department of Pediatrics Research Retreat

## **C.**

### **Contribution to Science**

1. I have contributed to pediatric pharmacogenomics, and more specifically to understanding the role of drug-gene interactions in relation to adverse events in pediatric patients taking psychotropic medications. My research has shown that risperidone exposed children with decreased or no CYP2D6 metabolism have increased adverse events compared to individuals with normal metabolism. My work has also shown that sertraline exposed children with normal CYP2C19 metabolism are at increased risk for adverse events compared to those with decreased or no metabolism, which is discordant with adult literature.
  - **Rossow KM**, Aka IT, Maxwell-Horn AC, Roden DM, Van Driest SL. Pharmacogenetics to Predict Adverse Events Associated with Antidepressants. *Pediatrics*.2020, e20200957. PubMed PMID: 33234666; PubMed Central PMCID: [PMC7786826](https://pubmed.ncbi.nlm.nih.gov/33234666/)
  - **Rossow KM**, Oshikoya KA, Aka IT, Maxwell-Horn AC, Roden DM, Van Driest SL. Evidence for Pharmacogenomic Effects on Risperidone Outcomes in Pediatrics. *J Dev Behav Pediatr*. 2020. Volume Publish Ahead of Print - Issue - doi: 10.1097/DBP.0000000000000883
  - Oshikoya KA\*, **Neely KM\***, Carroll RJ, Aka IT, Maxwell-Horn AC, Roden DM, Van Driest SL. CYP2D6 genotype and adverse events to risperidone in children and adolescents. *Pediatr Res*. 2019 Apr;85(5):602-606. PubMed PMID: [30661084](https://pubmed.ncbi.nlm.nih.gov/30661084/); PubMed Central PMCID: [PMC6435416](https://pubmed.ncbi.nlm.nih.gov/PMC6435416/). \***Co-first authors**
  - **Neely KM**, Aka IT, Maxwell-Horn AC, Roden DM. CYP2C19 phenotype and adverse events during sertraline treatment in children and adolescents. *Keystone Symposia: Beyond a Million Genomes*. Oral Presentation. Jan 2020, Breckenridge, CO.

## **D. Additional Information: Research Support and/or Scholastic Performance**

### **Prior Research Support**

5T32GM007569-33

07/1/2018 – 6/31/2020

PI: Knollmann

NIH/NIGMS

Clinical Pharmacology Training Program

This training program supports post-doctoral trainees in Clinical Pharmacology. Selection for this award required applying via an internal selection process. The focus of the project was validating pharmacogenomic indicators in the pediatric population.

Role: Trainee

Mentors: Van Driest and Roden

### **Ongoing Research Support**

Thrasher Early Career Award

07/1/2020 – 6/30/2022

PI: Rossow

Precision Prescribing in Autism Spectrum Disorders

This mentored training project focuses on identifying genetic predictors of psychotropic medication adverse events in children with Autism Spectrum Disorders.

Role: PI

Mentors: Van Driest and Roden