

**Kyle Brothers, MD, PhD**  
231 East Chestnut Street, N-97  
Louisville, Kentucky 40202  
(502) 588-0797  
(502) 629-5285  
kyle.brothers@louisville.edu

---

## EDUCATION

Aug 1996 - Jun 2000      Bachelor of Science, *Magna Cum Laude*  
Centre College  
Major/Focus: Religion, Biochemistry and Molecular Biology  
Danville, Kentucky

Aug 2000 - Jun 2004      Doctor of Medicine, *Magna Cum Laude*  
University of Louisville School of Medicine  
Louisville, Kentucky

Jul 2004 - Jun 2007      Pediatric Intern/Resident  
Vanderbilt Children's Hospital  
Nashville, Tennessee

Jul 2007 - Jun 2008      Chief Resident in Pediatrics  
Vanderbilt Children's Hospital  
Nashville, Tennessee

Aug 2008 - May 2015      Doctor of Philosophy  
Vanderbilt University Graduate Department of Religion  
Major/Focus: Program in Ethics and Society  
Nashville, Tennessee

## ACADEMIC APPOINTMENTS

Jul 2007 - Jun 2008      Clinical Instructor  
Department of Emergency Medicine  
Vanderbilt University School of Medicine  
Nashville, Tennessee

Jul 2008 - Jun 2012      Clinical Instructor  
Department of Pediatrics  
Vanderbilt University School of Medicine  
Nashville, Tennessee

Jul 2008 - Jun 2012      Instructor  
Center for Biomedical Ethics and Society  
Vanderbilt University School of Medicine  
Nashville, Tennessee

Jul 2010 - Jun 2012      Adjunct Professor  
Law School  
Vanderbilt University  
Nashville, Tennessee

Jul 2012 - Present      Assistant Professor  
Department of Pediatrics

University of Louisville School of Medicine  
Louisville, Kentucky

Jul 2012 - Present      Adjunct Assistant Professor  
Department of Pediatrics  
Vanderbilt University School of Medicine  
Nashville, Tennessee

Jul 2012 - Present      Affiliated Faculty Member  
Institute for Bioethics, Health Policy, and Law  
University of Louisville School of Medicine  
Louisville, Kentucky

Oct 2012 - Present      Associate  
Department of Family and Geriatric Medicine  
University of Louisville School of Medicine  
Louisville, Kentucky

## **CERTIFICATION AND LICENSURE**

Jun 2002 - Jun 2004      Advanced Cardiac Life Support  
American Heart Association

Jul 2002 - Present      Basic Life Support for Healthcare Providers  
American Heart Association  
*Expiration Date: May 2016*  
*Renewed continuously, most recently in May 2014*

Jun 2004 - Jun 2008      Neonatal Resuscitation Program  
American Academy of Pediatrics

Jun 2004 - Oct 2012      Pediatric Advanced Life Support  
American Heart Association  
*Renewed most recently in June 2010*

Jun 2007 - Apr 2014      Medical License  
State Medical Board of Tennessee  
*License Number: MD0000042526*

Oct 2008 - Present      Board-Certified Pediatrician  
American Board of Pediatrics  
*Expiration Date: Oct 2015*

May 2012 - Present      Motivational Interviewing  
*Training Course led by Ken Resnicow*

Jun 2012 - Present      Medical License  
Kentucky Board of Medical Licensure  
*License Number: 45218*

## **PROFESSIONAL MEMBERSHIPS AND ACTIVITIES**

Jun 2004 - Present      Fellow, American Academy of Pediatrics  
*Sections: Section on Bioethics, Section on Obesity*

Jun 2010 - Apr 2014	Member, American Medical Association
Jun 2010 - Present	Member, American Society of Bioethics and Humanities
Nov 2015 - Present	Member, Society for Pediatric Research

## **HONORS AND AWARDS**

May 2000	Inductee, Phi Beta Kappa
Jun 2002	Second Place Winner, John Conley Ethics Essay Contest
Jun 2004	Awardee, Billy F. Andrews, M.D. Scholarship for Pediatrics
Jun 2004	Inductee, Alpha Omega Alpha Medical Honors Society
Jun 2006	First Place Winner, AAP Section on Bioethics Essay Contest
Apr 2011	Scholars Abstract Award, 2011 Clinical and Translational Research and Education Meeting
Apr 2014	Faculty Peer Clinician-Teacher Excellence Award for New Faculty, Department of Pediatrics, University of Louisville School of Medicine
Jun 2015	Faculty Peer Clinician-Teacher Excellence Award for Mid-Career Faculty, Department of Pediatrics, University of Louisville School of Medicine

## **COMMITTEE ASSIGNMENTS AND ADMINISTRATIVE SERVICES**

### University (Intramural):

Jun 2004 - Jun 2008	Member, Pediatric Primary Care / Continuity Clinic Committee Vanderbilt Children's Hospital
Jul 2004 - Jul 2008	Member, Pediatric Residency Program Curriculum Committee Vanderbilt Children's Hospital
Jul 2007 - Jul 2008	Member, Hospital Pharmacy and Therapeutics Committee Vanderbilt Children's Hospital
Jul 2007 - Jul 2008	Member, Hospital Process Management and Improvement Committee Vanderbilt Children's Hospital
Jul 2008 - Dec 2008	Member, Medical Center Ethics Plan for Avian Flu Pandemic Committee Vanderbilt University Medical Center
Jul 2008 - Jul 2012	Member, Medical Center Ethics Committee Vanderbilt University Medical Center
Jul 2009 - Jul 2012	Ethics Reviewer for Study Proposals, BioVU Biobank Vanderbilt University School of Medicine

Sep 2012	Poster Judge, Research!Louisville Event University of Louisville
Mar 2013 - Present	Member, Pediatric Pharmacology Symposium Planning Committee Department of Pediatrics, University of Louisville
Oct 2014 - Present	Member, Research Oversight Committee for Dr. David Lohr University of Louisville School of Medicine
<u>Non-University (Extramural):</u>	
Jul 2008 - Nov 2011	Member, Consent and Community Consultation Committee eMERGE (Electronic Medical Records and Genomics) Consortium
Jul 2008 - Nov 2011	Member, Return of Results Working Group eMERGE (Electronic Medical Records and Genomics) Consortium
Jul 2008 - Nov 2011	Member, Return of Results Oversight Committee eMERGE (Electronic Medical Records and Genomics) Consortium
Nov 2011 - Present	Member, Workgroup for Consent, Education, Regulation, and Consultation eMERGE-2 (Electronic Medical Records and Genomics) Consortium
Nov 2011 - Present	Member, Workgroup for Actionable Variants eMERGE-2 (Electronic Medical Records and Genomics) Consortium
Sep 2012 - Present	Member, Hospital Ethics Committee Kosair Children's Hospital
Dec 2012 - Present	Member, BioVU Ethics Advisory Board Vanderbilt University Medical Center
Jan 2013 - Present	Co-Chair, Pediatric Bioethics Day Planning Committee Kosair Children's Hospital
Jun 2013 - Dec 2013	Member, Pediatric Workgroup CSER (Clinical Sequencing Exploratory Research) Consortium
Jun 2013 - Present	Member, Actionable Results/Return of Results Workgroup CSER (Clinical Sequencing Exploratory Research) Consortium
Jun 2013 - Present	Member, Outcomes and Measures Workgroup CSER (Clinical Sequencing Exploratory Research) Consortium
Jun 2013 - Present	Member, Qualitative Measures Workgroup CSER (Clinical Sequencing Exploratory Research) Consortium
Jan 2014 - Present	Co-Chair, Pediatric Workgroup CSER (Clinical Sequencing Exploratory Research) Consortium
Aug 2014 - Present	Member, Ethics Advisory Council for MyCode Community Health Initiative Geisinger Health System
Jun 2015 - Present	Early Career Reviewer, Societal and Ethical Issues in Research (SEIR) Study Section National Institutes of Health

## EDUCATIONAL ACTIVITIES

### Nursing and Allied Health Students:

- Jul 2010 - Jun 2012      Workshop Leader  
*Ethics and Palliative Care in Pediatric Nursing Care*  
Pediatric Nurse Residency Program  
Vanderbilt Children's Hospital
- Aug 2015                      Guest Speaker and Small Group Leader  
*2015 Book in Common - "The Immortal Life of Henrietta Lacks"*  
University of Louisville School of Dentistry

### Nursing and Allied Health Professionals:

- Oct 2010                      Workshop Leader  
*Ethics Cases in Child Life Practice*  
Department of Child Life  
Vanderbilt Children's Hospital
- Oct 2013 - Present              Guest Lecturer  
*Ethics Cases in PICU Nursing*  
Pediatric Intensive Care High-Tech Nursing Training Program  
Kosair Children's Hospital  
*Lecture provided on the following dates:*  
*October 1, 2013*  
*October 27, 2014*  
*September 21, 2015*
- Jul 2014 - Present              Guest Lecturer  
*Ethics Cases in Pediatric Critical Care*  
Pediatric Critical Care Nursing Lunch and Learn Sessions  
Kosair Children's Hospital  
*Lecture provided on the following dates (with case themes):*  
*July 7, 2014 (Professional Boundaries)*
- Oct 2014 - Present              Guest Lecturer  
*Qualitative Methods in Educational Research*  
Introduction to Research Methods, Certificate in Health Professions Program  
University of Louisville
- Dec 2015                      Guest Lecturer  
*Professional Ethics in Ebola Care*  
Ebola Assessment Hospital Staff Training  
Kosair Children's Hospital

### Medical Students:

- Oct 2006                      Clinical Preceptor  
Shade Tree Clinic  
Vanderbilt University Medical Center
- Jul 2007 - Jun 2008              Lecturer  
*Chief Resident Lecture Series*  
Third Year Medical Student Pediatrics Clerkship  
Vanderbilt University School of Medicine  
*Topics:*  
*"Pediatric Fluid Management"*

*"Neonatal Hyperbilirubinemia"*  
*"Managing Asthma Urgencies"*  
*"Common Pediatric Gastrointestinal Problems"*  
*"Common Pediatric Respiratory Tract Problems"*

Jan 2008 - Jun 2008      Course Co-Director  
*Second Year Medical Student Clinical Pediatrics Elective*  
Vanderbilt University School of Medicine

Sep 2011                      Panelist  
*Diverse Career Paths in Academia*  
Medical Scientist Training Program  
Vanderbilt University School of Medicine

Nov 2011                      Lecturer  
*The Immortal Life of Henrietta Lacks: Race and Medical Research*  
American Medical Association: Medical Student Section  
Meharry Medical College

Sep 2012 - Present          Small Group Leader  
*Professionalism Small Groups*  
Introduction to Clinical Medicine 1  
University of Louisville School of Medicine  
*Year (number of small group sessions led): 2012 (1), 2013 (1), 2014 (1)*

Oct 2012                      Guest Lecturer  
*Ethical Issues in Longitudinal Clinical Care*  
Longitudinal Ambulatory Rotation  
University of Louisville School of Medicine  
*Lecture provided on the following dates (with lecture topic):*  
*October 29, 2012 (Ethics Cases in Longitudinal Clinical Care)*  
*February 23, 2016 (Pediatric Obesity and Medical Neglect)*

Nov 2012 - Present          Core Faculty  
*Ethics Section*  
Introduction to Clinical Medicine 2  
University of Louisville School of Medicine  
*Year (number of small group sessions led): 2012 (1), 2013 (4), 2014 (4)*  
*Year (number of lectures provided): 2012 (1), 2013 (3), 2014 (3), 2016 (2)*  
*Sample lecture titles:*  
*"Working with Parents and Adolescents"*  
*"Balancing Autonomy and Beneficence"*  
*"Laws and Policies in Clinical Ethics"*  
*"Just Distribution of Medical Resources"*

Sep 2013 - Present          Small Group Leader  
*Family Medicine Clerkship Small Group Discussions on Ethical Issues in Family Medicine*  
Department of Family and Geriatric Medicine  
University of Louisville School of Medicine  
*Year (number of small group sessions led): 2013 (1), 2014 (1)*

Oct 2013                      Guest Lecturer  
*Global Health Ethics*  
Distinction in Global Health Program  
University of Louisville School of Medicine  
*Lecture provided on the following dates (with case themes):*  
*October 17, 2013 (Clinical Cases in the Context of Religious Medical Missions)*  
*November 10, 2014 (Ebola: Professional and Public Health Ethics)*  
*October 20, 2015 (Clinical Ethics Cases in Religious Medical Missions)*

Nov 2014                      Panelist  
*Guest Panel on Ebola Epidemic*  
Schools of Medicine, Nursing, and Public Health  
University of Louisville

Mar 2016                      Guest Lecturer  
*Saying "No" in Clinical Practice*  
Second Year Student Section on Human Sexuality  
University of Louisville School of Medicine

**Law and Graduate Students:**

Jan 2010 - Jun 2010        Teaching Assistant  
*Ethics in Theological Perspectives*  
Vanderbilt Divinity School  
*This course for Masters of Theological Studies and Masters of Divinity students explores a number of religious and philosophical ethical traditions, with a focus on application to religious or professional practices.*

Jan 2011 - Jun 2011        Co-Instructor  
*Ethics, Law, and Medicine*  
Vanderbilt Law School  
*This cross-listed interdisciplinary course explores a variety of topics and problems at the intersection of ethical, legal, and medical concerns in the modern world of health care.*

Jan 2012 - Jun 2012        Teaching Assistant  
*Theology and Health in a Therapeutic Culture*  
Vanderbilt Divinity School  
*This course for Masters of Theological Studies and Masters of Divinity students explores the theological and ethical implications of the cultural shift toward "therapy" as opposed to "care".*

Jan 2012 - Jun 2012        Co-Instructor  
*Genetics, Law, and Medicine*  
Vanderbilt Law School  
*This cross-listed interdisciplinary course explores a variety of topics and problems at the intersection of human genetics, medical practice, and the law. The course included law students, medical students, and graduate students in human genetics.*

Oct 2012 - Present         Guest Lecturer  
*Newborn Screening in the Digital Age*  
Legal and Ethical Aspects of Public Health Course  
University of Louisville School of Public Health and Information Sciences  
*Lecture provided on the following dates:*  
*October 3, 2012*  
*October 23, 2013*  
*October 22, 2014*

Mar 2013 - Present         Guest Lecturer  
*Pediatric Ethics*  
Bioethics and the Law  
University of Louisville Louis D. Brandeis School of Law  
*Lecture provided on the following dates (with case themes):*  
*March 4, 2013 (Pediatric End of Life)*  
*March 3, 2014 (Children with Severe Neurological Injury)*

Mar 2013 - Present         Guest Lecturer  
*Ethical Issues in Research with Children*

Ethical Conduct of Health Research  
University of Louisville School of Public Health and Information Sciences  
*Lecture provided on the following dates:*  
*March 6, 2013*  
*March 26, 2014*  
*February 19, 2015*

Nov 2014 - Present  
Guest Lecturer  
*Newborn Screening and Public Policy*  
Genomics and the Law  
University of Louisville Louis D. Brandeis School of Law  
*Lecture provided on the following dates:*  
*November 17, 2014*

**Residents:**

Jul 2007 - Jun 2008  
Presenter  
*Morning Conference Series*  
Pediatrics Residency Program  
Vanderbilt Children's Hospital

Jul 2008 - Jun 2010  
Clinical Preceptor  
Children's Hospital Pediatric Primary Care Clinic  
Vanderbilt Children's Hospital  
*4 hours twice monthly*

Jul 2008 - Jun 2012  
Clinical Preceptor  
Pediatric Weight Management Clinic  
Vanderbilt Children's Hospital

Jul 2009 - Jun 2012  
Lecturer  
*Core Curriculum Lecture Series*  
Pediatrics Residency Program  
Vanderbilt Children's Hospital  
*Once annually*  
*Topics:*  
*"Pediatric Clinical Ethics Cases: Caring for Neurologically Devastated Children"*  
*"Clinical Ethics Consultation: What It Is and How to Get One"*  
*"Choose Your Own Outcome: Provider-Patient Conflict"*

Oct 2010  
Lecturer  
*Pediatric Neurology Clinical Ethics Cases: The Role of Prognostication in Caring for Neurologically Devastated Children*  
Pediatric Neurology Resident Core Curriculum Lecture Series  
Vanderbilt Children's Hospital

Jul 2011 - Jun 2012  
Lecturer  
*The Clinical Ethics of Personalized Medicine*  
Internal Medicine Residency Ethics and Professionalism Series  
Vanderbilt University Medical Center  
*Lecture given once annually*

Jul 2012 - Jun 2014  
Clinical Preceptor  
UofL Pediatrics Broadway  
University of Louisville School of Medicine  
*8 hours weekly*

Nov 2013  
Guest Lecturer  
*Global Health Ethics: Pediatric Cases in Medical Missions*



Global Child Health Series, Pediatrics Residency Program  
Kosair Children's Hospital

Jan 2014 - Present

Presenter  
*Morning Report*  
Pediatrics Residency Program  
Kosair Children's Hospital  
*Presentation provided on the following dates (with case themes):*  
*January 15, 2014 (Adolescent Consent and Confidentiality)*  
*September 24, 2014 (Brain Death)*

May 2014 - Present

Guest Lecturer  
*Family Medicine Residency Core Lecture Series*  
Family Medicine Residency Program  
University of Louisville School of Medicine  
*Lecture provided on the following dates (with case themes):*  
*May 29, 2014 (Adolescent Consent and Confidentiality for Family Physicians)*

Jul 2014 - Present

Clinical Preceptor  
University of Louisville Pediatrics - Downtown  
University of Louisville School of Medicine  
*8 hours weekly*

Dec 2014 - Present

Guest Lecturer  
*Pediatrics Residency Core Lecture Series*  
Pediatrics Residency Program  
University of Louisville School of Medicine  
*Lecture provided on the following dates (with case themes):*  
*December 12, 2014 (Ebola: Professional and Public Health Ethics Issues)*

**Fellows:**

Jul 2011 - Jun 2012

Course Co-Director  
*Pediatric Critical Care Fellows Clinical Ethics Curriculum*  
Vanderbilt Children's Hospital  
*Designed 12-session curriculum, co-directed course, and led sessions.*  
*Sessions include:*  
*"Re-Introduction to Clinical Ethics: Beyond the Principles"*  
*"Religious, Philosophical, and Cultural Objections to Medical Interventions"*  
*"Decision-making for Children Dying from Non-accidental Trauma"*

Mar 2013 - Present

Guest Lecturer  
*Choose Your Own Outcome: Ethics Cases in Pediatric Subspecialty Medicine*  
Pediatrics Fellowship Programs  
University of Louisville School of Medicine  
*Lecture provided on the following dates (with case themes):*  
*March 18, 2013 (End of Life Care)*

Apr 2014 - Present

Guest Lecturer  
*Pediatric Critical Care Fellows Core Lecture Series*  
Department of Pediatrics  
University of Louisville School of Medicine  
*Presentation provided on the following dates (with case themes):*  
*April 9, 2014 (Patient care after the decision to withdraw life-sustaining treatment has been made)*  
*April 20, 2015 (Ethical issues in pediatric brain death)*

**Physicians:**

Oct 2012                      Presenter  
*Consent and Confidentiality of Adolescents in Primary Care*  
Division of General Pediatrics Scholarly Conference  
University of Louisville School of Medicine

## CLINICAL ACTIVITIES

Jul 2007 - Jun 2012            Attending Physician  
Pediatric Emergency Department  
Vanderbilt Children's Hospital  
*Provided urgent care 2-6 shifts per month for non-emergent patients presenting to the Pediatric Emergency Department.*

Jul 2008 - Jun 2009            Attending Physician  
Children's Hospital Primary Care Clinic  
Vanderbilt Children's Hospital  
*Provided care one half day per week as attending physician seeing primary care and acute care patients in an outpatient pediatric clinic. Care also involved supervision of pediatric residents and medical students.*

Jul 2008 - Jun 2012            Attending Physician  
Pediatric Weight Management Clinic  
Vanderbilt Children's Hospital  
*Provided care one half day per week, and later two half days per week, as an attending physician providing evaluation and treatment of children with obesity. This involved counseling patients and their parents on healthy eating and activity, motivational interviewing, and evaluation for complications of obesity. Central to this clinical activity was coordination with an interdisciplinary team, including dietitians, physical therapists, and exercise physiologists.*

Jul 2012 - Jun 2014            Attending Physician  
University of Louisville Pediatrics - Broadway Clinic  
University of Louisville Physicians Group  
*Provided care two half days per week as attending physician seeing primary care and acute care patients in an outpatient pediatric clinic. Care also involved supervision of pediatric residents and medical students.*

Jul 2014 - Present              Attending Physician  
University of Louisville Pediatrics - Downtown  
University of Louisville  
*Provided care two half days per week as attending physician seeing primary care and acute care patients in an outpatient pediatric clinic. Care also involved supervision of pediatric residents and medical students.*

## GRANTS AND CONTRACTS

### GRANTS

#### Current:

1. *Genomic Diagnosis in Children with Developmental Delay*  
PI: Richard Myers  
My Role: Lead Investigator, Component 3 (40% effort)  
Granting Agency: National Institutes of Health, National Human Genome Research Institute  
Funder Grant Number: 1UM1HG007301-01  
UofL Office of Grants Management Number: OICB130098  
Direct Costs: \$5,981,992 Indirect Costs: \$8,990,104

Dates: Jun 2013 - (May 2017)

*Component 3, Specific Aim 1: Measure whether families with a child with DD/ID provided with a genetic diagnosis experience improved perceived personal control, decreased uncertainty in future care, and decreased anxiety as compared to those for whom a genetic diagnosis cannot be identified.*

*Component 3, Specific Aim 2: Test in a clinical trial whether parents whose preferences regarding incidental findings are elicited prospectively experience improved perceived control, decreased anxiety, and request fewer incidental findings as compared with parents whose preferences are elicited post-hoc.*

Pending:

1. *Addressing Ethical Challenges in Networked Biorepositories*

PI: **Kyle Brothers**, Aaron Goldenberg

My Role: Co-Principal Investigator (25% effort)

Granting Agency: National Institutes of Health, National Human Genome Research Institute

Funding Mechanism: 1R01HG008988-01

UofL Office of Grants Management Number: OGMB151489

Direct Costs: \$1,436,356 Indirect Costs: \$322,681

Dates: Jul 2016 - (Jun 2020)

*Individual institutions across the country have worked to support research in a wide variety of areas by developing large biorepositories comprised of biospecimens and health data collected from local patients and controls. To address the need of larger sample sizes for increasingly refined analyses, researchers have begun to promote the networking of multiple repositories within or across multiple institutions. This networked biorepository approach makes it possible for researchers to access larger, more diverse sets of data and biospecimens in a way that leverages the research relationships that local institutions have built with their own communities of donors. In order for this approach to be successful, networked biorepositories need to address important ethical, legal, and social challenges. Networked biorepositories are comprised of diverse sets of specimens and data from different institutions, each with their own governance structures and donor needs. For these reasons, they encounter complex issues related to consent and donor permission, privacy and data security, and data access. These novel challenges have not previously been examined in detail, and best practices for addressing these issues through governance and oversight processes are lacking. This study will address these important needs through a rigorous, mixed-methods study of the perspectives and experiences of stakeholders currently engaged in designing, operating, and governing networked biorepositories. It will also aim to develop approaches to consent and donor permission, privacy and data security, data access, governance, and oversight that are most appropriate and effective for a variety of networked biorepository configurations.*

2. *ELSI Issues in Citizen Science: Cancer and Health Research Using Mobile Devices*

PI: Mark Rothstein

My Role: Co-Investigator (15% effort)

Granting Agency: National Institutes of Health, National Human Genome Research Institute

Direct Costs: \$974,242 Indirect Costs: \$386,764

Dates: Jul 2016 - (Jun 2018)

*Health research performed by "citizen scientists" and research using smartphones and other mobile medical devices are becoming more widely used. These new strategies have important implications for the ethical conduct of research. This proposed study will examine these methods in light of current research regulations and propose ways in which basic principles of research ethics can be met by this research. Citizen scientists who receive no federal funding are not subject to the Common Rule, the FDA research regulations, or the HIPAA Privacy Rule. Yet, citizen science health research using mobile devices poses a substantial challenge to recruitment, inclusion and exclusion criteria, informed consent, privacy, security, research with vulnerable populations, incidental findings, and data sharing. This project also conducts interviews of participants in the Share the Journey breast cancer study and other key stakeholders. The project has the following four aims.*

*Aim 1: Examine perspectives on ethical and regulatory challenges raised by mobile device-enabled citizen science by interviewing key stakeholders actively involved in this type of research. The investigators will attempt to learn the expectations of research participants and the views of app developers, researchers, and thought leaders in citizen science on the regulation of this new type of research.*

*Aim 2: Apply research ethics to mobile device-enabled, citizen science health research. Leading experts will discuss the ethical issues raised by these new forms of research at three invitation-only meetings of the study's Working Group. The members of the group will develop consensus recommendations, and their papers will be published in a special symposium issue of the Journal of Law, Medicine & Ethics.*

*Aim 3: Hold two app developers' workshops. Because of the central role of app developers in mobile health innovations, we will hold 2 workshops on the ethical issues in designing and using mobile apps for health research. Edited video highlights will be posted on the internet.*

*Aim 4: Hold a conference on public policy issues. At the end of the project, we will hold a conference in Washington, DC, to focus on the policy issues raised by citizen science using mobile devices. The conference will be geared to the NIH, FDA, OHRP, Congressional staffs, state governments, professional organizations, patient groups, researchers, IRBs, and other stakeholders.*

Past:

1. *Vanderbilt Genome-Electronic Records Project*

PI: Dan Roden

My Role: Co-Investigator (10% effort)

Granting Agency: National Institutes of Health, National Human Genome Research Institute

Funder Grant Number: 5-U01-HG004603

UofL Office of Grants Management Number: NA

Expiration Date: Nov 2012

Dates: Sep 2007 - Oct 2011

2. *Body and Soul Seminar*

PI: **Kyle Brothers**, Dan Morrison, Trevor Bibler

My Role: Seminar Co-Leader

Granting Agency: Robert Penn Warren Center Graduate Student Led Seminar Series

UofL Office of Grants Management Number: NA

Direct Costs: \$3500

Dates: Jul 2010 - Jul 2011

3. *Translating Pharmacogenomic Research to the Clinic: PREDICT Focus Groups Phase 2*

PI: **Kyle Brothers**

Granting Agency: Vanderbilt Institute for Clinical and Translational Research (VICTR)

Funder Grant Number: VR1240

UofL Office of Grants Management Number: NA

Direct Costs: \$10,000

Dates: Nov 2010 - Nov 2012

4. *Vanderbilt Genome-Electronic Records Project, eMERGE II*

PI: Dan Roden

My Role: Co-Investigator (10% effort)

Granting Agency: National Institutes of Health, National Human Genome Research Institute

Funder Grant Number: U01-HG006378

UofL Office of Grants Management Number: NA

Expiration Date: Nov 2012

Direct Costs: \$2,000,000 Indirect Costs: \$1,089,497

Dates: Nov 2011 - Jun 2012

5. *Social Media, Teen Moms, and PPD*

PI: Cynthia Logsdon

My Role: Ethics Advisor, Data Safety and Monitoring Board Member (1% effort)

Granting Agency: National Institutes of Health, National Institute for Nursing Research

Funder Grant Number: 1R15NR013563-01A1

UofL Office of Grants Management Number: OICB121360

Direct Costs: \$299,467 Indirect Costs: \$150,476

Dates: Jun 2013 - May 2015

6. *Patient Perspectives on Broad Consent in Biobank Research in the eMERGE Network (eMERGE Coordinating Center)*

PI: Jonathan Haines

My Role: Co-Investigator (3% effort)

Granting Agency: National Institutes of Health, National Human Genome Research Institute

Funder Grant Number: 3U01HG006385-03S1

UofL Office of Grants Management Number: OGMB140173

Direct Costs: \$15,010 Indirect Costs: \$3,903

Dates: Aug 2013 - Jul 2015

7. *Patient Perspectives on Broad Consent in Biobank Research in the eMERGE Network*

PI: Dan Roden

My Role: Co-Investigator (5% effort)

Granting Agency: National Institutes of Health, National Human Genome Research Institute

Funder Grant Number: 3U01HG006378-03S1

UofL Office of Grants Management Number: OGMB140172

Direct Costs: \$15,350 Indirect Costs: \$4,771

Dates: Sep 2013 - Jul 2015

Unfunded:

1. *Voluntariness, Feasibility, and Costs of an Opt-Out Approach to Biosample Research*

PI: Gordon Bernard

My Role: Lead Investigator (5% effort)

Granting Agency: National Institutes of Health, National Center for Advancing Translational Sciences

Funding Mechanism: U24 Mechanism

UofL Office of Grants Management Number: NA

Submission Date: Mar 2012

2. *The Era of the Empowered Patient: Ethics, Practice, and Public Policy*

PI: **Kyle B. Brothers**

Granting Agency: Greenwall Foundation

Funding Mechanism: Greenwall Foundation Faculty Scholars Program

UofL Office of Grants Management Number: NA

Direct Costs: \$96,749 Indirect Costs: \$45,874

Submission Date: Jan 2014

## EDITORIAL WORK

Jul 2008 - Present	Ad-hoc Reviewer, <i>American Journal of Medical Genetics</i> <i>Manuscripts reviewed during the following years (number reviewed): 2008 (1)</i>
Jan 2010 - Present	Ad-hoc Reviewer, <i>Cancer Epidemiology, Biomarkers, &amp; Prevention</i> <i>Manuscripts reviewed during the following years (number reviewed): 2010 (1)</i>
Jan 2010 - Present	Ad-hoc Reviewer, <i>Pediatrics</i> <i>Manuscripts reviewed during the following years (number reviewed): 2010 (1), 2011 (1), 2013 (1), 2014 (1), 2015 (3)</i>
Jan 2010 - Present	Ad-hoc Reviewer, <i>Science</i> <i>Manuscripts reviewed during the following years (number reviewed): 2010 (1)</i>
Jan 2010 - Present	Ad-hoc Grant Reviewer, <i>Wellcome Trust</i>
Jan 2010 - Present	Ad-hoc Reviewer, <i>American Journal of Bioethics</i> <i>Manuscripts reviewed during the following years (number reviewed): 2010 (1), 2014 (1)</i>
Mar 2012 - Present	Ad-hoc Reviewer, <i>Personalized Medicine</i> <i>Manuscripts reviewed during the following years (number reviewed): 2011 (1), 2012 (2), 2013 (1), 2014 (1)</i>
Dec 2012 - Present	Ad-hoc Reviewer, <i>Genome Medicine</i> <i>Manuscripts reviewed during the following years (number reviewed): 2012 (1), 2014 (2)</i>
Jan 2013 - Present	Ad-hoc Reviewer, <i>Genetics in Medicine</i> <i>Manuscripts reviewed during the following years (number reviewed): 2012 (1), 2013 (1),</i>

2015 (3)

Feb 2013 - Present	Ad-hoc Reviewer, <i>BMC Medical Research Methodology</i> <i>Manuscripts reviewed during the following years (number reviewed): 2013 (1)</i>
Mar 2013 - Present	Ad-hoc Reviewer, <i>AJOB Empirical Bioethics</i> <i>Manuscripts reviewed during the following years (number reviewed): 2013 (1), 2014 (1), 2016 (1)</i>
Jan 2014 - Present	Ad-hoc Reviewer, <i>BMC Medical Ethics</i> <i>Manuscripts reviewed during the following years (number reviewed): 2014 (2)</i>
Feb 2014 - Present	Ad-hoc Reviewer, <i>Health Affairs</i> <i>Manuscripts reviewed during the following years (number reviewed): 2014 (1)</i>
Apr 2014 - Present	Ad-hoc Reviewer, <i>Journal of Pediatrics</i> <i>Manuscripts reviewed during the following years (number reviewed): 2014 (1)</i>
May 2014 - Present	Ad-hoc Reviewer, <i>Journal of Genetic Counseling</i> <i>Manuscripts reviewed during the following years (number reviewed): 2014 (1)</i>
Jan 2015 - Present	Ad-hoc Reviewer, <i>PLOS One</i> <i>Manuscripts reviewed during the following years (number reviewed): 2015 (1)</i>
Feb 2015 - Present	Ad-hoc Reviewer, <i>European Journal of Human Genetics</i> <i>Manuscripts reviewed during the following years (number reviewed): 2015 (1), 2016 (1)</i>
Apr 2015 - Present	Ad-hoc Reviewer, <i>Journal of Biorepository Science for Applied Medicine</i> <i>Manuscripts reviewed during the following years (number reviewed): 2015 (1)</i>
May 2015 - Present	Ad-hoc Reviewer, <i>Clinical Genetics</i> <i>Manuscripts reviewed during the following years (number reviewed): 2015 (1)</i>
Aug 2015 - Present	Ad-hoc Reviewer, <i>Pediatric Blood and Cancer</i> <i>Manuscripts reviewed during the following years (number reviewed): 2015 (1)</i>
Nov 2015 - Present	Ad-hoc Reviewer, <i>Applied and Translational Genomics</i> <i>Manuscripts reviewed during the following years (number reviewed): 2015 (1)</i>
Dec 2015 - Present	Ad-hoc Reviewer, <i>Journal of Law, Medicine, &amp; Ethics</i>

## **ABSTRACTS AND PRESENTATIONS**

### **ORAL PRESENTATIONS**

#### National/International Presentations:

1. Topic Symposium, Pediatric Academic Societies  
Symposium/Panel Title: *Ethical Challenges in Pediatric Biobanks: Balancing Risks and Benefits*  
Presentation Title: *Designing and Implementing a Large-Scale De-Identified DNA Biobank: The Vanderbilt Experience*  
Role: Presenting Author  
May 2009 Baltimore, Maryland
2. Pediatric Pharmacogenomics and Personalized Medicine Symposium (\*Invited Talk)

Presentation Title: *Pediatric Biobanking Initiatives: Ethical Considerations and Legal Requirements*  
Role: Presenting Author  
Apr 2010 Kansas City, Missouri

3. Tercer Simposio Internacional de Bioética (\*Invited Talk)  
Presentation Title: *Biobanks and Research Databases: Beyond the Refrigerator*  
Role: Presenting Author  
Aug 2010 San Jose, Costa Rica

4. Panel Presentation, American Society of Bioethics and Humanities  
Symposium/Panel Title: *Too Young to Understand the Risks? Old Enough to Reap the Results?*  
Presentation Title: *Pediatric BioVU: Parent Perspectives on an Opt-Out Biobank*  
Role: Presenting Author  
Oct 2010 San Diego, California

5. Panel Presentation, Genomics and Public Health Conference  
Symposium/Panel Title: *Genomic Testing [of] Minors: Implications for Primary Prevention*  
Presentation Title: *Peds BioVU: Including Pediatric Samples in a Non-Human Subjects Biobank*  
Role: Presenting Author  
Dec 2010 Bethesda, Maryland

6. Alfried Krupp Wissenschaftskolleg Greifswald (\*Invited Talk)  
Presentation Title: *BioVU: Research Ethics in the Design of a Biorepository*  
Role: Presenting Author  
Jan 2011 Greifswald, Germany

7. Panel Presentation, 2011 Congress of the Ethical, Legal and Social Implications Research Program  
Symposium/Panel Title: *Pediatric Biobanks: Not Just Biobanks for Little Adults*  
Presentation Title: *Pediatric Biobanks: An Alternative Governance Model*  
Role: Presenting Author and \*Organizing Presenter  
Apr 2011 Chapel Hill, North Carolina

8. Panel Presentation, Pediatric Academic Societies  
Symposium/Panel Title: *Ethical Controversies in Pediatric Biobanks*  
Presentation Title: *Pediatric Biobanks: An Alternative Governance Model*  
Role: Presenting Author  
May 2011 Denver, Colorado

9. State of the Art Presentation, CTSA Consortium Child Health Oversight Committee (\*Invited Talk)  
Presentation Title: *BioVU: Using Biorepositories to Answer Research Questions*  
Authors: **Brothers KB**, Van Driest SL  
Role: Presenting Author  
Apr 2012 Boston, Massachusetts

10. Platform Presentation, American Society for Human Genetics  
Presentation Title: *Genome-wide association study of vancomycin pharmacokinetics using a de-identified biorepository*  
Authors: Van Driest SL, McGregor TL, Lu Z, Vear S, Creech CB, Kannankeril PJ, **Brothers KB**, Potts A, Bowton E, Delaney JT, Bradford Y, Wilson S, Olson L, Crawford DC, Saville B, Roden DM, Denny JC  
Role: Non-Presenting Author  
Nov 2012 San Francisco, California

11. Panel Presentation, Why We Can't Wait: Conference to Eliminate Health Disparities in Genomic Medicine (\*Invited Talk)  
Symposium/Panel Title: *Health IT, Privacy and Genomics*  
Presentation Title: *Human Non-Subjects Biobanking: Privacy, Perspectives, and Personalized Medicine for Everyone*  
Role: Presenting Author  
May 2013 San Francisco, California

12. Guest Speaker, National Cancer Institute (\*Invited Talk)  
Symposium/Panel Title: *Ethical and Regulatory Issues in Cancer Research (ENRICH) Forum*  
Presentation Title: *Different Headaches: The Human Non-Subjects Approach to Biobanking*  
Role: Presenting Author  
Jan 2014 Shady Grove, Maryland
  
13. Expert Presentation and Workshop Contributor, Ethical and legal aspects of molecular genetic incidental findings in Germany, Austria, and Switzerland (\*Invited Talk)  
Presentation Title: *The Challenges of Managing Incidental Findings: The U.S. Perspective*  
Role: Presenting Author  
Mar 2014 Greifswald, Germany
  
14. Panel Presentation, Clinical Sequencing Exploratory Research Consortium In-Person Meeting  
Symposium/Panel Title: *Pediatric Genomics: Resolving Conflicts & Improving Decision-Making*  
Presentation Title: *Preferences in Pediatric Result Sharing: The Disease Category Approach*  
Authors: **Brothers KB**, East KE  
Role: Presenting Author and \*Organizing Presenter  
Oct 2014 Bethesda, Maryland
  
15. Panel Presentation, American Society of Bioethics and Humanities  
Symposium/Panel Title: *Operationalizing Choice and Autonomy: Approaches to Ethically Offering and Returning Secondary Genetic Results*  
Presentation Title: *Preferences in Pediatric Result Sharing: The Disease Category Approach*  
Authors: **Brothers KB**, East KE  
Role: Presenting Author  
Oct 2014 San Diego, California
  
16. Panel Presentation, American Society of Bioethics and Humanities  
Symposium/Panel Title: *The DNA Lives On: Genetic Testing and DNA Banking at the End of Life*  
Presentation Title: *Ethical and Legal Issues in Genetic Testing and DNA Banking At the End of Life*  
Role: Presenting Author  
Oct 2014 San Diego, California
  
17. Platform Presentation, Translation in Healthcare - Exploring the Impact of Emerging Technologies  
Symposium/Panel Title: *Data Sharing for Translation*  
Presentation Title: *Clinical Decision-Making and Secondary Findings in Systems Medicine*  
Authors: Langanke M, Fischer T, Erdmann P, **Brothers KB**  
Role: Non-Presenting Author  
Jun 2015 Oxford, England
  
18. Short Course Faculty, Short Course on Statistical Genetics and Genomics (\*Invited Talk)  
Presentation Title: *Ethical Issues in Human Genetics Research*  
Role: Presenting Author  
Jul 2015 Birmingham, Alabama
  
19. Platform Presentation, American Society for Human Genetics  
Symposium/Panel Title: *The Real World: Translating Sequencing into the Clinic*  
Presentation Title: *A large-scale survey conducted by the eMERGE Network of patient perspectives on broad consent and data sharing in biospecimen research*  
Authors: Smith ME, Sanderson S, Mercaldo N, Antommara A, Aufox SA, Brilliant M, **Brothers KB**, Claar MB, Clayton EW, Connolly JJ, Conway P, Fullerton SM, Garrison NA, Hakonarson H, Horowitz CR, Jarvik GP, Kaufman D, Kitchner T, Li R, Ludman E, McCarty C, McCormick JB, Myers M, Nowakowski KE, Schildcrout J, Shrubsole MJ, Stallings S, Williams JL, Ziniel S, Holm IA  
Role: Non-Presenting Author  
Oct 2015 Baltimore, Maryland
  
20. Platform Presentation, ACMG Annual Clinical Genetics Meeting  
Presentation Title: *Genomic Diagnoses for Children with Intellectual Disability and Developmental Delay*  
Authors: Cooper GM, Amaral M, Barsh GS, Bebin EM, Bowling KM, **Brothers KB**, East KM, Finnila C, Gray D, Hiatt S, Kelley W, Lamb N, Lose EJ, Myers RM, Simmons S, Whittle J.



Role: Non-Presenting Author  
Mar 2016 Tampa, Florida

Local/Regional Presentations:

1. Conference Presentation, Neonatal Concepts Conference (\*Invited Talk)  
Presentation Title: *Choose Your Own Adventure: Professional Boundaries in Neonatal Nursing Care*  
Role: Presenting Author  
Louisville, Kentucky
2. Paper Response, Social and Political Thought Seminar  
Symposium/Panel Title: *Enhancing Evolution*  
Presentation Title: *Exploring Gendered Experience When Gender Has Been Destabilized*  
Role: Presenting Author  
Feb 2010 Nashville, Tennessee
3. Nineteenth Annual Joel G. Hardman Student-Invited Pharmacology Forum (\*Invited Talk)  
Symposium/Panel Title: *Personalized Medicine*  
Presentation Title: *Pediatric Biobanking Initiatives: Ethical Considerations and Legal Requirements*  
Role: Presenting Author  
Apr 2010 Nashville, Tennessee
4. Nashville Chapter of the Society of Clinical Research Associates (\*Invited Talk)  
Presentation Title: *Human Non-Subjects Biobanking: Ethical and Legal Considerations for Research Users*  
Role: Presenting Author  
Jun 2010 Nashville, Tennessee
5. Grand Rounds, Department of Pediatrics, University of Louisville (\*Invited Talk)  
Presentation Title: *Refusers, Deniers, and Objectors: Working with Vaccine-Hesitant Parents*  
Role: Presenting Author  
Aug 2010 Louisville, Kentucky
6. Panel Presentation, Vanderbilt Kennedy Research Center Ethics Grand Rounds  
Symposium/Panel Title: *'Curing' Disabilities: Ethical Considerations*  
Role: Presenting Author  
Apr 2011 Nashville, Tennessee
7. Belmont University (\*Invited Talk)  
Symposium/Panel Title: *Panel Discussion on The Immortal Life of Henrietta Lacks by Rebecca Skloot*  
Presentation Title: *The Immortal Life of Henrietta Lacks: Research Controversies and Regulations*  
Role: Presenting Author  
Nov 2011 Nashville, Tennessee
8. Guest Speaker, Hillsboro High School, Academy of Global Health and Science  
Presentation Title: *Synthetic Biology: Frankenstein in the 21st Century*  
Role: Presenting Author  
May 2012 Nashville, Tennessee
9. St. Jude Children's Research Hospital Clinical Research Mini-Symposium (\*Invited Talk)  
Symposium/Panel Title: *Genomics, Research and Children: Regulations, Ethics and Community*  
Presentation Title: *Issues of Consent and Return of Results in Genomics Research with Children*  
Role: Presenting Author  
Aug 2012 Memphis, Tennessee
10. Center for Genetics and Molecular Medicine Symposium (\*Invited Talk)  
Symposium/Panel Title: *Whole Genome Sequencing: From Lab to Clinic*  
Presentation Title: *The Genome on the Exam Table: Clinical Applications of Whole Genome Sequencing*  
Role: Presenting Author  
Nov 2012 Louisville, Kentucky

11. CME Presentation, Carle Foundation Hospital (\*Invited Talk)  
Symposium/Panel Title: *Bioethics Seminar Series*  
Presentation Title: *Working with Vaccine-Hesitant Parents*  
Role: Presenting Author  
Sep 2013 Urbana, Illinois
  
12. Research Symposium Presentation, Kentucky General Pediatrics Scholarship Symposium  
Presentation Title: *Genomic Diagnosis in Children with Developmental Delay*  
Role: Presenting Author  
May 2014 Lexington, Kentucky
  
13. Grand Rounds, Department of Pediatrics, University of Louisville  
Symposium/Panel Title: *Ebola - The 21st Century Plague*  
Presentation Title: *Ebola: Professional and Public Health Ethics*  
Role: Presenting Author  
Oct 2014 Louisville, KY
  
14. Panel Presentation, Genomics and Ethics in Research and Medical Decision-Making  
Symposium/Panel Title: *Beyond Dualist Perspectives on Genetic Exceptionalism*  
Presentation Title: *Finding a Better Way: Genomic Distinctiveness*  
Authors: **Brothers KB**, Goldenberg AJ, Garrison NA  
Role: Presenting Author and \*Organizing Presenter  
Mar 2015 Cincinnati, Ohio
  
15. Platform Presentation, Genomics and Ethics in Research and Medical Decision Making  
Presentation Title: *Eliciting Parents' Preferences for Receiving Secondary Genomic Results*  
Authors: **Brothers KB**, East KE  
Role: Presenting Author  
Mar 2015 Cincinnati, Ohio
  
16. Platform Presentation, Rare Disease Symposium (\*Invited Talk)  
Presentation Title: *Ethical and Legal Issues in Clinical Genomics*  
Authors: **Brothers KB**  
Role: Presenting Author  
Mar 2015 Birmingham, Alabama
  
17. Grand Rounds, Department of Family and Geriatric Medicine, University of Louisville (\*Invited Talk)  
Presentation Title: *Working with Vaccine-Hesitant Parents*  
Role: Presenting Author  
Oct 2015 Louisville, Kentucky
  
18. Grand Rounds, Division of Pediatric and Adolescent Psychology and Psychiatry (\*Invited Talk)  
Presentation Title: *The Preferences Instrument for Genomic Secondary Results*  
Role: Presenting Author  
Nov 2015 Louisville, Kentucky

## **POSTERS**

### National/International Presentations:

1. HUGO Symposium on Genomics and Ethics, Law and Society  
Symposium/Panel Title: *Sequencing of Individual Genomes: Impact on Society and Ethics*  
Presentation Title: *Acceptability of an Opt-out Biobank Based on Electronic Medical Record and Residual Blood Samples*  
Authors: **Brothers KB**, Morrison DR, Pulley J, Masys D, Clayton EW  
Role: Non-Presenting Author  
Nov 2009 Geneva, Switzerland

2. Pediatric Academic Societies

Presentation Title: *Acceptability of an Opt-Out Pediatric Biobank Based on Electronic Medical Record and Residual Blood Samples*

Authors: **Brothers KB**, Clayton EW, Morrison DR, Pulley JM, Masys D

Role: Presenting Author

May 2010 Vancouver, British Columbia, Canada

3. American Society of Bioethics and Humanities

Presentation Title: *The Nashville Community Health Survey: Perspectives on DNA Biobanking in a Population-Based Survey*

Authors: **Brothers KB**, Morrison DR, Clayton EW

Role: Presenting Author

Oct 2010 San Diego, California

4. 2011 Congress of the Ethical, Legal and Social Implications Research Program

Presentation Title: *Patient Perspectives on the PREDICT Program: Focus Groups on Practical Issues in the Design of a Clinical Pharmacogenomics Program*

Authors: Wright MF, Clayton EW, Pulley J, **Brothers KB**

Role: Non-Presenting Author

Apr 2011 Chapel Hill, North Carolina

5. American Society for Human Genetics

Presentation Title: *Mapping the Incidentalome: Quantifying Incidental Findings Generated Through a Clinical Pharmacogenomics Project*

Authors: **Brothers KB**, Westbrook MJ, Wright MF, Van Driest SL, McGregor TL, Denny JC, Zuvich RL, Clayton EW

Role: Presenting Author

Nov 2012 San Francisco, California

6. Pediatric Pharmacogenomics and Personalized Medicine Symposium

Presentation Title: *Genome-Wide Association Study of Vancomycin Pharmacokinetics*

Authors: McGregor TL, Van Driest SL, Lu Z, Vear S, Creech CB, Kannankeril PJ, **Brothers KB**, Potts A, Bowton E, Delaney JT, Bradford Y, Wilson S, Olson L, Crawford DC, Saville B, Roden DM, Denny JC

Role: Non-Presenting Author

Apr 2013 Kansas City, Missouri

7. Poster Presentation, National Human Genome Research Institute (NHGRI) Scientific Symposium

Presentation Title: *The Electronic Medical Records and Genomics (eMERGE) Network: A Population Survey of Perspectives toward Proposed Rule on Broad Consent and Data Sharing in Biomedical Research*

Authors: Odgis JA, Holm IA, Smith ME, Garrison NA, **Brothers KB**, Myers MF, McCormick JB, Aufox SA, Antommaria AH, Chandler A, Christensen KD, Veerkamp M, Connolly N, Ziniel S, Ludman EJ, Fullerton SM, Scrol A, Williams JL, DeWalle J, Nowakowski KE, Connolly JJ, Brilliant MH, Hitz P, Kitchner T, Joyce J, Conway P, McCarty CA, McManus VD, Negron R, Pacheco JL, Horowitz C, Clayton EW, Price L, Basford MA, Stallings SC, Claar MB, Scrubsole MJ, Mercaldo ND, Schildcrout JS, Sanderson SC, Kaufman D, Lockhart N, Li R

Role: Non-Presenting Author

Dec 2014 Bethesda, Maryland

8. Poster Presentation, Ethical and Legal Aspects of Molecular Genetic Incidental Findings in Germany, Austria, and Switzerland (\*Invited Talk)

Presentation Title: *How Could This Have Happened? The US Perspective on Incidental Findings in the ACMG Recommendations*

Authors: Brothers, KB

Role: Non-Presenting Author

Feb 2015 Greifswald, Germany

9. American Society for Human Genetics

Presentation Title: *Secondary Finding Preferences in Whole Genome Sequencing: Experiences with a Large Developmental Delay Cohort*

Authors: East KM, **Brothers KB**, Bowling KM, Simmons S, Bebin EM, Lose EJ, Kelley W, Barsh GS, Myers RM, Cooper GM

Role: Non-Presenting Author

Oct 2015 Baltimore, Maryland

10. National Society of Genetic Counselors Annual Education Conference  
Presentation Title: *Development of Recommendations for Ordering Clinicians with Minimal Genetics Background from the ClinGen Consortium Consent and Disclosure Recommendations Committee*  
Authors: Faucett WA, Rashkin M, **Brothers KB**, Coughlin C, Hercher L, Hudgins L, Jamal S, Levy H, Peay H, Roche M, Stosic M, Smith M, Uhlmann W, Wain K, Ormond K  
Role: Non-Presenting Author  
Oct 2015 Pittsburgh, Pennsylvania

11. National Society of Genetic Counselors Annual Education Conference  
Presentation Title: *Secondary Finding Preferences in Whole Genome Sequencing: Experiences with a Large Developmental Delay Cohort*  
Authors: East KM, **Brothers KB**, Bowling KM, Simmons S, Bebin EM, Lose EJ, Kelley W, Barsh GS, Myers RM, Cooper GM  
Role: Non-Presenting Author  
Oct 2015 Pittsburgh, Pennsylvania

12. Poster Presentation, ACMG Annual Clinical Genetics Meeting  
Presentation Title: *Expecting the Unexpected: Secondary Finding Preferences and Outcomes in Families of Children with Developmental Delay*  
Authors: Kelley W, East KM, **Brothers KB**, Rich CA, Amaral M, Barsh GS, Bebin EM, Bowling KM, Finnila C, Gray D, Hiatt S, Lamb N, Lose EJ, Myers RM, Simmons S, Whittle J, Cooper GM  
Role: Non-Presenting Author  
Mar 2016 Tampa, Florida

13. Poster Presentation, ACMG Annual Clinical Genetics Meeting  
Presentation Title: *Is Knowledge Power? Family-Centered Outcomes from Genomic Sequencing in Children with Intellectual Disability*  
Authors: East KM, **Brothers KB**, Rich CA, Kelley W, Amaral M, Barsh GS, Bebin EM, Bowling KM, Finnila C, Gray D, Hiatt S, Lamb N, Lose EJ, Myers RM, Simmons S, Whittle J, Cooper GM  
Role: Non-Presenting Author  
Mar 2016 Tampa, Florida

14. Poster Presentation, ACMG Annual Clinical Genetics Meeting  
Presentation Title: *Eliciting Preferences on Secondary Findings: The Preferences Instrument for Genomic Secondary Results (PIGSR)*  
Authors: **Brothers KB**, East KM, Wright MF, Rich CA, Kelley W, Westbrook M, Amaral M, Barsh GS, Bebin EM, Bowling KM, Finnila C, Gray D, Hiatt S, Lamb N, Lose EJ, Myers RM, Simmons S, Whittle J, Cooper GM, Clayton EW  
Role: Presenting Author  
Mar 2016 Tampa, Florida  
*Recognized as "Top Poster"*

15. Poster Presentation, ACMG Annual Clinical Genetics Meeting  
Presentation Title: *Patients' Views on Broad Consent and Data Sharing in Biobank Research: A Large Multisite Survey in the US*  
Authors: Sanderson S, Antommara A, Aufox S, Brilliant M, **Brothers KB**, Clayton EW, Connolly J, Garrison N, Harley J, Holm I, Horowitz C, Kaufman D, Ludman E, McCarty C, McCormick J, Mercaldo N, Schildcrout J, Shrubsole M, Basford M, Bodin Claar M, Smith M  
Role: Presenting Author  
Mar 2016 Tampa, Florida

16. Poster Presentation, ACMG Annual Clinical Genetics Meeting  
Presentation Title: *Reanalysis of Exomes with No Results or Variants of Uncertain Significance Leads to New Diagnoses*  
Authors: Hiatt S, Amaral M, Barsh GS, Bebin EM, Bowling KM, **Brothers KB**, Cooper GM, East KM, Finnila C, Gray D, Kelley W, Lamb N, Lose EJ, Myers RM, Rich CA, Simmons S, Whittle J  
Role: Non-Presenting Author  
Mar 2016 Tampa, Florida

Recognized as "Top Poster"

Local/Regional Presentations:

1. Research! Louisville 2012

Presentation Title: *Mapping the Incidentalome: Quantifying Incidental Findings Generated Through a Clinical Pharmacogenomics Project*

Authors: Westbrook MJ, Wright MF, Van Driest SL, McGregor TL, Denny JC, Zuvich RL, Clayton EW, **Brothers KB**

Role: Presenting Author

Sep 2012 Louisville, Kentucky

2. Research! Louisville 2014

Presentation Title: *Geographic Disparities of Pediatric Obesity Clinic Attendance*

Authors: Yeager RA, Sweeney BR, Myers JA, Burkhead TA, Shaffer LA, **Brothers KB**

Role: Non-Presenting Author

Sep 2014 Louisville, Kentucky

3. Poster Presentation, Research! Louisville 2014

Presentation Title: *Factors Associated with Attendance at a Pediatric Weight Management Program*

Authors: Burkhead TA, Shaffer LA, **Brothers KB**, Myers JA, Yeager RA, Sweeney BR

Role: Non-Presenting Author

Sep 2014 Louisville, Kentucky

## PUBLICATIONS

### PEER-REVIEWED

Original Research Articles, Major Author:

1. **Brothers KB**. Covenant and the Vulnerable Other. *Journal of the American Medical Association*. 2002; 288 (9): 1133.

2. **Brothers KB**, Glascoe FP, Robertshaw NS. PEDS: Developmental Milestones--an accurate brief tool for surveillance and screening. *Clinical Pediatrics*. 2008; 47 (3): 271-279.

3. **Brothers KB**, Clayton EW. "Human Non-Subjects Research": Privacy and Compliance. *American Journal of Bioethics*. 2010; 10 (9): 15-17.

4. **Brothers KB**. Biobanking in Pediatrics: The Human Non-Subjects Approach. *Personalized Medicine*. 2011; 8 (1): 71-79.

5. **Brothers KB**. Dependent Rational Providers. *Journal of Medicine and Philosophy*. 2011; 36 (2): 133-147.

6. **Brothers KB**, Morrison DM, Clayton EW. Two Large Scale Surveys on Community Attitudes Toward an Opt-Out Biobank. *American Journal of Medical Genetics*. 2011; 155A (12): 2982-2990.

7. **Brothers KB**, Clayton EW. Parental Perspectives on a Pediatric Human Non-Subjects Biobank. *American Journal of Bioethics: Primary Research*. 2012; 3 (3): 21-29.

8. Westbrook MJ, Wright MF, Van Driest SL, McGregor TL, Denny JC, Zuvich RL, Clayton EW, **Brothers KB**. Mapping the Incidentalome: Estimating Incidental Findings Generated Through Clinical Pharmacogenomics Testing. *Genetics in Medicine*. 2012; 15 (5): 325-331.

9. Webster THG, Beal SJ, **Brothers KB**. Motivation in the Age of Genomics: Why Incidental Genetic Findings of Disease Susceptibility Might Not Motivate Behavior Change. *Life Sciences, Society, and Policy*. 2013; 9 (8).

10. **Brothers KB**, Westbrook MJ, Wright MF, Myers JA, Morrison DR, Madison JL, Pulley JM, Clayton EW. Patient Awareness and Approval for an Opt-Out Genomic Biorepository. *Personalized Medicine*. 2013; 10 (4): 349-359.
11. **Brothers KB**, Langanke M, Erdmann P. The Implications of the Incidentalome for Clinical Pharmacogenomics. *Pharmacogenomics*. 2013; 14 (11): 1353-1362.
12. **Brothers KB**, Lynch JA, Aufox SA, Connolly JJ, Gelb BD, Holm IA, Sanderson SC, McCormick JB, Williams JL, Wolf WA, Antommara AHM, Clayton EW. Practical Guidance on Informed Consent for Pediatric Participants in a Biorepository. *Mayo Clinic Proceedings*. 2014; 89 (11): 1471-1480.
13. **Brothers KB**, Rothstein MA. Ethical, Legal, and Social Implications of Incorporating Personalized Medicine into Healthcare. *Personalized Medicine*. 2015; 12 (1): 43-51.
14. **Brothers KB**, Holm IA, Childerhose JE, Antommara AHM, Bernhardt BA, Clayton EW, Gelb BD, Joffe S, Lynch JA, McCormick JB, McCullough LB, Parsons DW, Sundaresan AS, Wolf WA, Yu JH, Wilfond BS. When Participants in Genomic Research Grow Up: Contact and Consent at the Age of Majority. *The Journal of Pediatrics*. 2016; 168 (January): 226-231.e1.

Original Research Articles, Co-Author:

1. Bryant KA, Humbaugh K, **Brothers KB**, Wright J, Pascual FB, Moran J, Murphy TV. Measures to Control an Outbreak of Pertussis in a Neonatal Intermediate Care Nursery After Exposure to a Healthcare Worker. *Infection Control and Hospital Epidemiology*. 2006; 27 (6): 542-545.
2. Bishop JP, **Brothers KB**, Perry JE, Ahmad A. Reviving the conversation around CPR/DNR. *American Journal of Bioethics*. 2010; 10 (1): 61-67.
3. Langanke M, **Brothers KB**, Erdmann P, Weinert J, Krafczyk-Korth J, Dorr M, Hoffmann W, Kroemer H, Assel H. Comparing different scientific approaches to personalized medicine: research ethics and privacy protection. *Personalized Medicine*. 2011; 8 (4): 437-444.
4. Fullerton SM, Wolf WA, **Brothers KB**, Clayton EW, Crawford DC, Denny JC, Greenland P, Koenig BA, Leppig KA, Lindor NM, McCarty CA, McGuire AL, McPeck Hinz ER, Mirel DB, Ramos EM, Ritchie MD, Smith ME, Waudby CJ, Burke W, Jarvik GP. Return of Individual Research Results from Genome-wide Association Studies: Experience of the Electronic Medical Records and Genomics (eMERGE) Network. *Genetics in Medicine*. 2012; 14 (4): 424-431.
5. Pulley JM, Denny JC, Peterson JF, Bernard GR, Vnencak-Jones CL, Ramirez AH, Delaney JT, Bowton E, **Brothers KB**, Johnson K, Crawford DC, Schildcrout J, Masys DR, Dilks H, Clayton EW, Schultz E, Laposata M, McPherson J, Jirjis JN, Roden DM. Operational implementation of prospective genotyping for personalized medicine: The design of the Vanderbilt PREDICT project. *Clinical Pharmacology & Therapeutics*. 2012; 92 (1): 87-95.
6. Langanke M, Fischer T, Erdmann P, **Brothers KB**. Gesundheitliche Eigenverantwortung im Kontext Individualisierter Medizin (Personal Responsibility in the Context of Individualized Medicine). *Ethik in der Medizin*. 2012; 25 (13): 243-250.  
*The content in this article overlaps with the content of a book chapter, originally published in English, that is also listed here. It was revised, updated, and translated into German at the invitation of the journal Ethik in der Medizin.*
7. McGregor TL, Van Driest SL, **Brothers KB**, Bowton EA, Muglia LJ, Roden DM. Inclusion of pediatric samples in an opt-out biorepository linking DNA to de-identified medical records: Pediatric BioVU. *Clinical Pharmacology & Therapeutics*. 2013; 93 (2): 204-211.
8. Rosenbloom ST, Madison JL, **Brothers KB**, Bowton EA, Clayton EW, Malin BA, Roden DM, Pulley J. Ethical and Practical Challenges to Studying Patients Who Opt Out of Large-Scale Biorepository Research. *Journal of the American Medical Informatics Association*. 2013; 20: e221-e225.
9. Hazin R, **Brothers KB**, Malin BA, Koenig BA, Sanderson S, Rothstein MA, Williams MS, Clayton EW, Kullo IJ. Ethical, Legal and Social Implications of Incorporating Genomic Information into Electronic Health Records. *Genetics*

*in Medicine*. 2013; 15 (10): 810-816.

10. Jarvik GP, Amendola LM, Berg JS, **Brothers KB**, Clayton EW, Chung W, Evans BJ, Evans JP, Fullerton SM, Gallego CJ, Garrison NA, Gray SW, Holm IA, Kullo IJ, Lehmann LS, McCarty C, Prows CA, Rehm HL, Sharp RR, Salama J, Sanderson S, Van Driest SL, Williams MS, Wolf SM, Wolf WA, eMERGE ROR Committee & CERC Committee, CSER Act-ROR Working Group, Burke W. Return of Genomic Results to Research Participants: The floor, the ceiling, and the choices in-between. *The American Journal of Human Genetics*. 2014; 94 (6): 818-826.

11. Van Driest SL, McGregor TL, Velez-Edwards DR, Saville BR, Kitchner TE, Hebbring SJ, Brilliant M, Jouni H, Kullo IJ, Creech CB, Kannankeril PJ, Vear SI, **Brothers KB**, Bowton EA, Shaffer CM, Patel N, Delaney JT, Bradford Y, Wilson S, Olson L, Crawford DC, Ho R, Potts AL, Ho RH, Roden DM, Denny JC. Genome-Wide Association Study of Serum Creatinine Levels during Vancomycin Therapy. *PLOS One*. 2014.

12. Khan CM, Rini C, Bernhardt BA, Roberts JS, Christensen KD, Evans JP, **Brothers KB**, Roche MI, Berg JS, Henderson GE. How Can Psychological Science Inform Research About Genetic Counseling for Clinical Genomic Sequencing?. *Journal of Genetic Counseling*. 2015; 24 (2): 193-204.

13. McCullough LB, **Brothers KB**, Chung WK, Joffe S, Koenig BA, Wilfond BS, Yu JH. Professionally Responsible Disclosure of Genomic Sequencing Results in Pediatric Practice. *Pediatrics*. 2015; 136 (4): e974-82.

#### Journal Articles In Press:

1. Fischer T, **Brothers KB**, Erdman P, Langanke M. Clinical Decision-Making and Secondary Findings in Systems Medicine. *BMC Medical Ethics*. 2015.

2. Shaffer LA, **Brothers KB**, Burkhead TA, Yeager R, Myers JA, Sweeney BR. Factors Associated with Attendance after Referral to a Pediatric Weight Management Program. *Pediatrics*. 2016.

3. Green RC, Goddard KAB, Amendola LM, Appelbaum PS, Berg JS, Bernhardt B, Biesecker LG, Blout CL, Bowling KM, **Brothers KB**, Burke W, Caga-Anan CF, Chinnaiyan AM, Chung WK, Clayton EW, Cooper G, East K, Evans JP, Fullerton M, Garraway LA, Garrett JR, Gray SW, Henderson GE, Hindorff LA, Holm IA, Huckaby-Lewis MA, Hutter CM, Janne PA, Jarvik GP, Joffe S, Kaufman D, Knoppers BM, Koenig BA, Krantz ID, Manolio T, McCullough L, McEwen J, McGuire A, Muzny D, Myers RM, Nickerson D, Ou J, Parsons DW, Petersen GM, Plon SE, Rehm H, Roberts JS, Robinson D, Salama JS, Scollon S, Sharp RR, Shirts B, Spinner NB, Tabor HK, Tarczy-Hornoch P, Veenstra D, Wagle N, Weck K, Wilfond BS, Wilhelmsen K, Wolf SR, Wynn J, Yu JH. The Clinical Sequencing Exploratory Research Consortium: Accelerating the Evidence-Based Practice of Genomic Medicine. *American Journal of Human Genetics*. 2016.

#### Books, Book Chapters, and Monographs:

1. Langanke M, Fischer T, **Brothers KB**. Public Health – It is running through my veins: Personalized Medicine and Individual Responsibility for Health. *Individualized Medicine between Hype and Hope: Exploring Ethical and Societal Challenges for Healthcare*. 2012: 165-188.

2. **Brothers KB**. Wie konnte das passieren? Die US-amerikanische Perspektive auf Zufallsbefunde in den ACMG-Empfehlungen (How could this have happened? The US Perspective on Incidental Findings in the ACMG Recommendations). *Zufallsbefunde bei molekulargenetischen Untersuchungen – Medizinische, rechtliche und ethische Herausforderungen (Incidental Findings in Molecular Genetics Research - Medical, Legal and Ethical Challenges)*. 2015.

#### **NON-PEER-REVIEWED**

##### Original Research Articles:

1. Centers for Disease Control and Prevention (CDC). Outbreaks of Pertussis Associated with Hospitals - Kentucky, Pennsylvania, and Oregon. *Morbidity and Mortality Weekly Report*. 2005; 54 (3): 67-71.  
*Acknowledged as case report contributor*

2. **Brothers KB**. Putting Autonomy First: Should the pediatrician refuse to provide emergency contraception?. *AAP Section on Bioethics Newsletter*. 2006: 10-12.
3. **Brothers KB**. Coping with Religious Coping: When What We Want and What is Best for Us Are Not the Same. *Virtual Mentor*. 2009; 11 (10): 1140-1147.
4. **Brothers KB**, Clayton EW. Biobanks: Too Long to Wait for Consent. *Science*. 2009; 326 (5954): 798. *Comment On: Gurwitz D, Fortier I, Lunshof JE, Knoppers BM. Research ethics. Children and population biobanks. Science. Aug 14 2009;325(5942):818-819.*
5. Bishop JP, **Brothers KB**, Perry JE, Ahmad A. Finite knowledge/finite power: "death panels" and the limits of medicine. *American Journal of Bioethics*. 2010; 10 (1): W7-9.
6. **Brothers KB**. Informed consent in the era of biobanks. *Genome Medicine*. 2013; 5 (4).
7. **Brothers KB**. Ethical Issues in Pediatric Pharmacogenomics. *Journal of Pediatric Pharmacology and Therapeutics*. 2013; 18 (3): 192-198.
8. **Brothers KB**. Diversity, Ethics, and Personalized Medicine Research. *Celebrating Diversity: The Newsletter of the UofL HSC Office of Diversity and Inclusion*. 2014: 1, 7-8.
9. Clayton EW, **Brothers KB**. State-Offered Ethnically Targeted Reproductive Genetic Testing. *Genetics in Medicine*. 2015.
10. Rothstein MA, Wilbanks JT, **Brothers KB**. Citizen Science on your Smartphone: An ELSI Research Agenda. *Journal of Law, Medicine, and Ethics*. 2015; 43 (4): 897-903.