

CURRICULUM VITAE

I. PERSONAL

Name: Robert Marshall Ward
Citizenship: (b) (6).
Office: 295 Chipeta Way, Neonatology
Salt Lake City, UT 84108
(b) (6)

II. EDUCATION

Undergraduate

B.S., Chemistry (b) (6) Southern Methodist University
Cum Laude Dallas, Texas

Graduate

M.D. (b) (6) Johns Hopkins University Medical School
Baltimore, Maryland

Internship (b) (6) University of Minnesota Hospital
Pediatrics Minneapolis, Minnesota

Residency (b) (6) University of Minnesota Hospitals
Pediatrics Minneapolis, Minnesota

Fellowship (b) (6) University of Minnesota Hospitals
Fellowship Minneapolis, Minnesota
Division of Neonatology
Division of Clinical Pharmacology

Board Certification

National Board of Medical Examiners: (b) (6)
American Board of Pediatrics: (b) (6)
Neonatal-Perinatal Medicine: (b) (6)
American Board of Clinical Pharmacology: (b) (6)

III. PROFESSIONAL EXPERIENCE

A. FULL TIME ACADEMIC APPOINTMENTS

The Pennsylvania State University 1979-
College of Medicine 1985
Hershey, Pennsylvania

Assistant Professor
Pediatrics and Pharmacology

Responsibilities:

Attending Neonatologist
Lecturer in Pharmacology
Research: Tolazoline kinetics

and cardiovascular effects;
Perinatal pharmacology; Fetal
urinary tract obstruction

University of Utah
College of Medicine
Salt Lake City, Utah

1985- Associate Professor
1995 Pediatrics
Responsibilities:
Attending neonatologist

1985- Research in fetal urinary
1988 tract obstruction, perinatal
pharmacology

1986- Design new Univ. of Utah
1988 Large animal laboratories

1988- Medical Director PCMC NICU
1997

University of Utah
College of Medicine
Salt Lake City, Utah

1995- Professor of Pediatrics
Present **Responsibilities**
Attending neonatologist
Perinatal pharmacology
Collaborative Research: NO in
PPHN, Dexamethasone - BPD,
beclamethasone for prevention
of BPD, albuterol delivery,
pharmacology of analgesia,
prevention of PDA in ELBW
neonates with ibuprofen,
newborn kinetics of methadone
and morphine, treatment of
GERD in neonates and young
children with pantoprazole

1997- Medical Director University
8/2011 of Utah Pediatric
Pharmacology Program.
Oversee the coordination
of drug studies by Ped
Pharmacology Program (80
studies, enrolled >1000 ped.
patients for 13 pediatric
divisions)

2007- Adjunct Professor,
Present Pharmacology/Toxicology,
University of Utah College of
Pharmacy

2009- Medical Director, Pediatric
8/2011 Clinical Trials Office
University of Utah

B. HOSPITAL STAFF APPOINTMENTS

1979-1985

Full Time Medical Staff
M.S. Hershey Medical Center
Pennsylvania State University
Hershey, PA 17033

July, 1985-present

Full Time Medical Staff
Attending Neonatologist
University of Utah Medical Center
Salt Lake City, UT 84132

July, 1985-present

Full Time Medical Staff
Attending Neonatologist
Primary Children's Medical Center
Salt Lake City, UT 84103

Sept, 2007-present

Courtesy Medical Staff
Attending Neonatologist
Intermountain Medical Center
Salt Lake City, UT 84157

July, 1985-2009

Courtesy Medical Staff
Attending Neonatologist
LDS Hospital
Salt Lake City, UT 84143

June 26, 1989-1997

Primary Children's Medical Center
Medical Director, Newborn Critical Care Services

1990-July 1, 1993

Courtesy Medical Staff
Attending Neonatologist
Holy Cross Hospital
Salt Lake City, Utah 84102

1996-1997

Courtesy Medical Staff
Attending Neonatologist
Paracelsus Hospital
Salt Lake City, Utah

Visiting Professor

9/84 Baylor University, Department of Pediatrics, Houston, TX

6/89 Grand Canyon College, Phoenix, AZ

Curriculum Vitae August, 2012
Robert M. Ward, M.D.

- 8/97 LSU, Department of Pediatrics, New Orleans, LA
- 11/02 Baylor University, Department of Pediatrics, Houston, TX
Third Annual Reba Hill Visiting Professor
- 6/03 FDA Visiting Professor Program
- 9/05 Visiting Scholar, Emory University Division of Neonatology, "Truth
and Reflections in Pharmacokinetics", Atlanta, GA

PROFESSIONAL OR SCIENTIFIC REVIEW COMMITTEES/CONSULTATIONS

FDA/USP

1992

Consultant to the United States Pharmacopeia Committee of Revision regarding tolazoline for USP DI volume 1, Drug Information for the Health Care Professional, Rand McNally, Taunton, Mass, 1993.

1995 - 2003

Member US Pharmacopeia General Committee of Revision Expert Advisory Panel on Pediatrics.

1999

FDA Pediatric Subcommittee. Invited participant. Focused on ethical guidelines for the participation of children in medication trials and involvement of children in trials involving sedatives. Washington, D.C. November 15-16, 1999.

2000

FDA Pediatrics Advisory Subcommittee. Invited participant. Focus on study of oncology drugs in pediatrics, breast milk drug excretion, and study designs for pediatric trials. Washington, D.C. September 11-12, 2000.

2000

FDA meeting regarding adverse effects of drugs during pregnancy and lactation. Washington, D.C. November 7-8, 2000.

2000

FDA/CDC meeting regarding registries to detect adverse effects of drugs during pregnancy. Washington, D.C. November 29-30, 2000.

2000

North American Society of Pediatric Gastroenterology and Nutrition meeting to discuss with FDA and pharmaceutical manufacturers the evaluation and treatment of gastroesophageal reflux in newborns and infants. Washington, DC. December 7-8

2002

Consultant to FDA Pediatric Advisory Subcommittee regarding medications for neonatal gastroesophageal reflux disease. Washington, DC. June 10-11.

2005

Consultant FDA Pediatric Advisory Committee. Rockville, MD June 28-30.

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Consultant FDA Pediatric Advisory Committee. Gaithersburg, MD Nov 16-18.

2006

Consultant FDA Pediatric Advisory Committee. Gaithersburg, MD Mar 22.

11/16/2006

Interim Chair, FDA Pediatric Advisory Committee. Rockville, MD

11/2006-6/2010

Member FDA Pediatric Advisory Committee.

1/2011-present

Member FDA Pediatric Advisory Committee

Institute of Medicine

12/17/2010-6/30/2012

Member: Committee on Review of Pediatric Studies Conducted Under the Best Pharmaceutical for Children Act and the Pediatric Research Equity Act

Independent Grant Reviews

2008

Thrasher Grant Review

2010

Thrasher Grant Review

Industry

1995-1999

Member Roche Laboratories Midazolam Pediatric Advisory Board, Presenter for Versed FDA Advisory Panel 12/18/96

1998

Consultant to R.W. Johnson Pharmaceutical Research Institute for presentation to FDA Advisory Panel review of Atosiban, 4/20/98

1998

Consultant to McNeil Consumer Products Co. regarding: Fatty acid dietary supplement; Pediatric Product Line, Senior Advisory Panel

1999

Consultant to McNeil Consumer Products Co. regarding: Labeling of ibuprofen; FDA OTC Products Division.

2000

Consultant to Ferring Pharmaceutical Research Institute for presentation to FDA regarding tocolytic, October 3, 2000.

2000

Consultant to Janssen Pharmaceutical Research Foundation for presentation to FDA regarding drug for treatment of pediatric gastroesophageal reflux.

2003, 2005, 2006

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Consultant to Wyeth Pharmaceuticals regarding design of neonatal & pediatric studies of proton pump inhibitors for GERD

2006

Consultant to Abbott Pharmaceuticals regarding development and testing of analgesic for pediatrics

2007

Consultant to McNeil Consumer Products regarding cough and cold treatment

Consultant to MedImmune Pharmaceuticals regarding antiviral medications

Consultant to Johnson & Johnson Pharmaceutical Research Institute regarding pediatric testing of a new analgesic medication

2008-6/2010

Consultant to Johnson & Johnson Pharmaceutical Research Institute regarding pediatric testing of antibiotics

NIH

1985-1991

Consultant for study of tolazoline pharmacokinetics
Neonatal Network
National Institute of Child Health and Development

1991

Outside Reviewer/Consultant
NIH National Heart, Lung, and Blood Institute
National Asthma Education Program Working
Group on Asthma and Pregnancy
Management of Asthma During Pregnancy
NIH Publication No. 93-3279A, October, 1992

1998

NICHD Workshop on Surrogate Markers in Pediatrics. Invited participant.
Washington, D.C. September 24-25.

1999

NICHD Workshop on Developmental Pharmacology.
Invited participant. Washington, D.C. October 25-26.

2000

NIH Consensus Conference on Repeated Courses of Steroids During
Pregnancy. Invited speaker. Washington, D.C. August, 2000.

2000

NICHD Workshop on Adverse Effects of Drugs During Pregnancy. Invited
participant. Washington, D.C. September 25-26.

2001-2004

NICHD/CDC/EPA Children's Health Study. Invited member of the Working
Group for Medicines and Pharmaceuticals, responsible for helping to
design and implement this 21 year longitudinal study of factors that
affect fetal, neonatal, childhood and adult disease.

Curriculum Vitae August, 2012
Robert M. Ward, M.D.

2002

Grant proposal review for NICHD Pediatric Pharmacology Research Unit Network. Washington, DC. August.

Consultant to NICHD for prioritization of off-patent drugs, required through the Best Pharmaceuticals for Children's Act. Baltimore, MD 5/4, Washington, DC. 12/9.

2003

Invited consultant to NICHD/FDA Newborn Drug Development Initiative to develop criteria for prioritization of drugs to study in neonates. Baltimore, MD 2/10. Chair of Prioritization Committee

Consultant to NICHD for prioritization of off-patent drugs to study, required through the Best Pharmaceuticals for Children's Act. Washington, DC. 12/12/03.

2004

NICHD-AAP Workshop on Neonatal Research.
Bethesda, MD 1/15-16/04

NICHD/FDA Newborn Drug Development Initiative
Co-Chair, Prioritization Working Group. Baltimore, MD 3/29-30/04

Best Pharmaceuticals for Children Act (BPCA) List Prioritization Review.
Chair. NICHD, Rockville, MD. 10/25-26/04

NICHD/FDA Preclinical Models and Pediatrics Workshop. Invited
discussant. Rockville, MD. 10/28/04.

2005

NICHD. Improving Pediatric Therapeutics Through the Best Pharmaceuticals for Children Act of 2002. Invited speaker. 5/16/05, Pediatric Academic Society, Washington, DC.

NICHD/AAP Optimizing Care and Outcome of the Near-term Pregnancy and the Near-term Newborn Infant. Invited speaker and discussant. Bethesda, MD. 7/18-19/05.

Best Pharmaceuticals for Children Act (BPCA) List Prioritization Review.
Chair. NICHD, Bethesda, MD. 11/8-9/05

2006

Consultant to NICHD Neonatal Network in design of inositol
pharmacokinetic studies in support of a multi-centered efficacy study.

Best Pharmaceuticals for Children Act (BPCA) List Prioritization Review.
Chair. NICHD, Bethesda, MD. 12/5-6/2006

2007

Consultant to NICHD Neonatal Network in design/analysis of inositol
single dose kinetics in support of a multi-centered efficacy study

2008

Best Pharmaceuticals for Children Act (BPCA) List Prioritization Review.
NICHD, Bethesda, MD. 6/30-7/1/2008.

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Consultant to NICHD Neonatal Network in design/analysis of inositol single dose kinetics in support of a multi-centered efficacy study.

2009

Consultant to NICHD Neonatal Network in analysis of inositol single dose kinetics and design of a multi-dose efficacy study.

Best Pharmaceuticals for Children Act (BPCA) Prioritization Review.
NICHD, Bethesda, MD. 11/18-19/2009

NIH Special Emphasis Panel: Pain, Morphine and the Developing Brain: School Age Outcomes.

NIH Special Emphasis Panel: Obstetrics Pharmacology Research Unit network.

2010

Consultant to NICHD Neonatal Network in design/analysis of inositol multi-dose kinetics in support of a multi-centered efficacy study.

Best Pharmaceuticals for Children Act (BPCA) Prioritization Review.
NICHD, Bethesda, MD. 11/9-10/2010

2011

NICHD Vision Workshop on Diagnostics and Therapeutics. Planner and Speaker: "The Future of Therapeutics in Pediatrics". March 1-2, 2011

NIH Special Emphasis Panel: Specialized Centers in Research in Developmental Pharmacology Program (U54. July 12-13, 2011

Misc

1983-1984

Fleur de Lis Grant Reviewer
Cardinal Glennon Memorial Hospital for Children
St. Louis, MO

1989-1997

IHC Neonatology Coordinating Council
Intermountain Health Care, Inc.
Salt Lake City, UT

2002

Invited review of a Section of the 10 Edition of Goodman & Gilman's The Pharmacological Basis of Therapeutics in preparation for the 11 edition.

2003

External grant reviewer, Canadian Institutes of Health Research.

2008

Member of the International Pediatric Association Program committee in the area of Better Medicines for Children

U.S. Congress on Behalf of American Academy of Pediatrics

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2000

FDA-NIH Council Congressional Briefing regarding the importance of studies of drugs in children stimulated by FDAMA. May 23, 2000. Washington, DC.

2001

Testimony before Senate Health, Education, Labor and Pension Committee regarding Better Pharmaceuticals for Children's Act. Washington, DC. May 8.

2001

Congressional Briefing: Best Pharmaceuticals for Children Act. Washington, DC. September 21

2002

Participant in conference call with Acting Commissioner of the FDA regarding placement of the 1998 Pediatric Final Rule on hold.

C. EDITORIAL REVIEW

Manuscript Referee

American Journal of Diseases in Children
American Journal of Human Genetics
American Journal of Obstetrics and Gynecology
Current Therapeutic Research
Developmental Pharmacology and Therapeutics
Drug Metabolism and Disposition
Early Human Development
Journal of Pediatrics
Journal of Perinatology
Journal of Perinatal Medicine
Journal of Pharmacology and Experimental Therapeutics
Obstetrics & Gynecology
Pediatric Infectious Disease Journal
Pediatrics
Pediatric Research

Editorial Board

Founding Co-Editor of Neonatal Pharmacology Quarterly - July, 1992 to Sept, 1993.

Current Therapeutic Research Editorial Board - 1999 to present.

Book Review

1992: Neofax, 1994 edition.

1993: Pediatric Advisory Committee for Problems in Pediatric Drug Therapy (2nd ed.)

1995: Pediatric Advisory Committee for Problems in Pediatric Drug Therapy (3rd ed.)

1999: Pediatric Advisory Committee for Problems in Pediatric Drug Therapy (4th ed.)

D. RESEARCH AWARDS

6/12/72-8/2/72

USPHS NIH General Research Support Grant

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Robert M. Ward, M.D.

Mentor: (b) (6), MD; (b) (6) au,
PhD
\$(b)

11/1/77-10/31/78 Minnesota medical foundation
\$(b) (4)

1/1/81-12/31/82 Principal Investigator Research Starter Grant
Pharmaceutical Manufacturing Association
Foundation
\$(b) (4)

5/1/82-7/31/85 Principal Investigator
New Investigator Research Award
NIH - NHLBI
\$107,500

7/1/83-6/30/85 Preceptor for Dr. (b) (6)
Ciba-Geigy Clinical Scientist Award in Surgery
\$(b) (4)

6/1/84-8/30/84 Preceptor for (b) (6)
NIH National Research Service Award for
Short-Term Research Training
\$2,200

7/1/85-3/31/86 Principal Investigator
Biomedical Research Support Grant
University of Utah
\$(b) (4)

4/1/88-3/31/89 Consultant Contract
NICHD Neonatal Intensive Care Network
A Multi-centered Randomized Trial of Therapy in
PPHN
\$14,381

4/1/89-3/31/90 Ibid
(b) (4) (b) (4) for 4/1/89-5/31/89,

1994 (b) (6) Pharm.D. - Principal Investigator
Robert M. Ward, M.D. - Co-investigator
Biomedical Research Support Grant
Placebo-Controlled Trial of Inhaled and
Intravenous Dexamethasone in Ventilator-Dependent
Neonates University of Utah College Research
and Programs Committee
\$(b) (4)

1994-1999 (b) (6) Pharm.D. - Principal Investigator
Robert M. Ward, M.D. - Co-investigator
Grant Program for New Investigators
American Association of Colleges of Pharmacy
Placebo-Controlled Trial of Inhaled and
Intravenous Dexamethasone in Ventilator-Dependent
Neonates
\$(b)

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Robert M. Ward, M.D.

- 1994-1996 Public Health Services Research Grant from the National Center for Research Resources
(b) (6) Pharm.D. - Principal Investigator
Robert M. Ward, M.D. - Co-investigator
Does Nebulized Dexamethasone Improve Pulmonary Function in Ventilator-Dependent Premature Neonates?
Total inpatient costs are covered
- 1995-1996 (b) (6) Pharm.D. - Principal Investigator
Robert M. Ward, M.D. - Co-investigator
American College of Clinical Pharmacy-Rhone-Poulenc-Rorer Pulmonary Research Award
Early Administration of Beclomethasone in Premature Neonates at Risk for Bronchopulmonary Dysplasia.
\$(b) (4)
- 1996-1999 Public Health Services Research Grant from the National Center for Research Resources
(b) (6) Pharm.D. - Principal Investigator
Robert M. Ward, M.D. - Co-investigator
Early Administration of Beclomethasone in Premature Neonates at Risk for Bronchopulmonary Dysplasia
Total inpatient costs are covered
- 9/30/1998-9/1/2005 (b) (6) Pharm.D.- Principal Investigator
Robert M. Ward, M.D. - Co-Investigator
(b) (6) Ph.D., M.D. - Co-Investigator
(b) (6) Ph.D. - Co-Investigator
National Institute for Drug Addiction
1 R29 DA10779-01A1
Iatrogenic Opioid Dependence in Critically Ill Children
\$349,979 TDC
- 1999-2000 Robert M. Ward, M.D.-Director
Pediatric Pharmacology Program start-up funding.
Primary Children's Medical Center Foundation
\$(b) (4)
- 1999-2001 Robert M. Ward, M.D.-Univ Utah Principal Investigator: Characterization of the Disposition and Action of Cisapride in Infants and Neonates.
Janssen Research Foundation.
- 2000-2002 Robert M. Ward, M.D.-Univ Utah Principal Investigator: Open-Label, Multicenter, Multiple-Dose, Phase III Study of the Population Pharmacokinetics of IV Synercid (7.5 mg/kg q8h) in 75 Pediatric Patients.
- 2000-2001 Robert M. Ward, M.D.-Director

- Pediatric Pharmacology Program continuation funding. Primary Children's Medical Center Foundation
\$(b)(4)
- 1999-2002 Robert M. Ward, M.D. - Study Designer, Principal Investigator - Univ Utah: A Study of Orapred™ Compliance in Pediatric Patients. Ascent Pediatrics
- 2000-2003 Robert M. Ward, M.D. - Co-Investigator, Principal Investigator - (b)(6) Pharm.D: Pharmacokinetics of Inhaled Albuterol Enantiomers in Critically Ill Children. Sepracor.
- 2000-2003 Robert M. Ward, M.D. -Chair, Data Safety Monitoring Committee: Phase II Safety and Activity Trial of Chloroquine in HIV-Infected Infants. (b)(6) M.D.-Principal Investigator, Case Western Reserve University Uganda National AIDS Research Subcommittee Conducted through Makerere Univ, Kambala, Uganda
- 2002-2005 Robert M. Ward, M.D.-Univ Utah Principal Investigator: FCR-00-01/Ross CB88-A Randomized, Double-Blind Study of Ibuprofen L-Lysine Intravenous Solution in Premature Infants for the Early Treatment of PDA. Farmacon-IL, LLC.
- 2004-2008 Pediatric Pharmacology Research Unit network site. National Institutes of Child Health and Development. 1 U10 HD045986-01 \$1,321,730 TDC
- 2004-2006 Pediatric Pharmacology Fellowship Training Program. Primary Children's Medical Center Foundation.
\$(b)(4)
- 2006-2007 A Multicenter, Open Label, Pharmacokinetic Study of Fluconazole in Infants. PPRU study. (b)(6) (b)(6) MD, PhD, PI- Children's Hospital of Philadelphia. Local PI.
- 2005-2008 A Multicenter, Randomized, Open Label, Single, and Multiple Dose Study of the Safety and Pharmacokinetics of 2 Dose Levels of Pantoprazole Sodium in Children Aged 1 through 11 years with Endoscopically Proven GERD. Protocol - Pantoprazole 3001B3-334-US. Local PI.
- 2005-2006 A Phase 1/2, Open-Label, Repeat-Dose, Dose-Escalation Study to Evaluate the Safety, Tolerability, Immunogenicity, and Pharmacokinetics of MEDI-524, A Humanized

- Enhanced Potency Monoclonal Antibody Against Respiratory Syncytial Virus (RSV), at Risk for Serious RSV Disease. MI-CP124. Local CoI.
- 2005-2007 A Multicenter, Open-Label Pharmacokinetic, Pharmacodynamic, and Safety Study of Pantoprazole for Injection in Neonates and Preterm Infants with a Clinical Diagnosis of Gastroesophageal Reflux Disease. Wyeth Research protocol number 3001B3-331-WW. Consultant to study design. Local PI.
- 2005-2006 Design of Phase II Randomized, Double Blind, Placebo Controlled, Safety and Pharmacokinetic Study of a Single Dose of Inositol in Premature Infants". Collaboration between PPRU and NICHD Neonatal Research Network (PI Phelps).
(b) (6) -Local PI; Ward-Local CoI
- 2006 Chemical analysis of inositol by HPLC from scavenged samples from preterm newborns to determine age-related changes in inositol. Calculation of kinetics of age-related changes in inositol Neonatal Research Network study. PI (b) (6)
(b) (6) PI, Ward-Local CoI
- 2006, 2007-2008 A Pivotal Phase 3 Study of MEDI-524 (Numax™), an Enhanced Potency Humanized Respiratory Syncytial Virus (RSV) Monoclonal Antibody, for the Prophylaxis of Serious RSV Disease in High-Risk Children. Protocol MI-CP110. Local CoI.
- 2005-2007 The Role of Drug Bioactivation and Detoxification in the Pathogenesis of Adverse Drug Reactions in Children. PPRU Protocol #10606. (b) (6)
PhD-University of Missouri at Kansas City, PI. Local CoI.
- 2007-2009 Safety and Single Dose Population Pharmacokinetics and Bioavailability of Methadone and its Enantiomers in Newborns and Young Infants At 29-48 Weeks Post Menstrual Age. PI and Study Design. \$(b) (4) Univ Utah Health Sciences Funds.
- 2007-2009 Analysis of inositol single dose kinetics. NICHD Neonatal Research Network. PI-(b) (6)
Ward-Local CoI with (b) (6)
- 2007-2009 Optimizing Pain Treatment in Pre-Term Neonates. PI (b) (6)
(b) (6) MD, PhD Children's National Medical Center, Washington, DC.
Local PI. PPRU protocol
- 2008-2009 Stability of NeoProfen® in parenteral nutrition solutions. Ovation Pharmaceutical

Role: PI

2008-2009 Design of inositol Multiple dose kinetic, safety and efficacy study in neonates.
NICHD Neonatal Research Network. PI-(b) (6)
Roles: Ward-Local CoI with (b) (6), PhD, design of study

9/30/2009-4/30/2010 Pharmacology of Neonatal Abstinence Syndrome
ARRA BPCA Supplement to CTSA. (b) (6) -PI of CTSA)
No cost ext NIH: Univ Utah CCTS 3UL1RR025764-02S3
4/30/2011 Role: Study design and PI for supplement studies
9/30/2009-4/30/2010TDC \$294,934

12/30/2009-12/30/2014 P450 Metabolism of Glucocorticoids in Lungs of Pediatric Asthmatics. PI (b) (6)
Role: CoI, design of clinical study evaluating asthma severity vs metabolic profile for inhaled corticosteroids
NICHD: 1R01HD060559-01A1 \$2,441,152
TDC \$2,927,349

2008-2009 Pediatric Pharmacology Research Unit network
2009-2010 site. National Institutes of Child Health and
No cost ext Development. 3U10HD045986-05S1
Role: PI

4/15/2008-3/27/2010 Multiple Dose Pharmacokinetic Study of [a carbapenem antibiotic] in Young Infants (<91 days) with Suspected or Complicated Intra-Abdominal Infections
Sponsor: Merck Pharmaceuticals
Role: Local PI

2009- 7/2011 A Phase 2b/3, Multi-Center, Randomized, Double-Blind, Placebo Controlled Trial to Evaluate the Safety and Efficacy of [an anti-staphylococcal monoclonal antibody] Injection in Very Low Birth Weight (VLBW) Neonates for the Prevention of Staphylococcal Sepsis
Sponsor: Biosynexus
Role: Local PI

IV. SCHOLASTIC HONORS AND AWARDS

Presidential Honors Scholarship, Southern Methodist University, (b) (6)
Tri Beta Biology Honorary, Southern Methodist University, (b) (6)
Phi Beta Kappa, Southern Methodist University, (b) (6)
Henry Strong Denison Research Award, Johns Hopkins University School of Medicine, (b) (6) mentor (b) (6) .

Honorary Lectures:

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- 1995: Fifth Annual Emily Cara Garbose Lecture: Pharmacology of Fetal Drug Therapy. Children's National Medical Center, Washington, DC. 20 Sept.
- 1999: First L. Joseph Butterfield Lecture on Perinatal Practice, American Academy of Pediatrics Workshop on Perinatal Practice. Scottsdale, Arizona, Apr.
- 2002: Third Annual Reba Michels Hill Lecture: Should We Study New Drugs in Children? Baylor College of Medicine Department of Pediatrics, Houston, Tx. 15 Nov.
- 2003: Stanley Porter Memorial Lecture: The Case for Studying Drugs in Children Questions You Should Ask Before Giving a New Drug to a Neonate. Eastern Virginia Medical School and Children's Hospital of The King's Daughters, Norfolk, VA. 6 Nov.

V. ADMINISTRATIVE EXPERIENCE

Chairman of Committee or Program

M.S. Hershey Medical Center

Pennsylvania State University

Hershey, PA

1984-1985

Chairman, Pharmacy and Therapeutics Committee

Primary Children's Medical Center

Salt Lake City, UT

1987-1991

Chairman, Pharmacy and Therapeutics Committee

1989-1992

Medical Director, Pharmacy Services

1989-1997

Director, Neonatal Critical Care Services

1989-1997

Chairman, Neonatology QA Committee

University of Utah

Salt Lake City, UT

1997-Present

Director, Pediatric Pharmacology Program

Hospital Committees

M.S. Hershey Medical Center

Pennsylvania State University

Hershey, PA

1979-1985

Pharmacy and Therapeutics Committee

1984

Disaster Plan Task Force

University of Utah Medical Center

Salt Lake City, UT

1985-1991

Medical Ethics Committee

1987

Task Force for Aminoglycoside Monitoring

Primary Children's Medical Center

Salt Lake City, UT

1987-1993

Pharmacy and Therapeutics Committee

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1987-1997	Medical QA (Management) Committee
1989-1997	Medical Executive Committee
1989-1997	Neonatology QA Committee
1989-1990	Patient Move Task Force
1989-1990	Neonatal Move Committee
1989-1990	PCMC Hospital Move Steering Committee
1989-1997	Hospital Council
1989-1997	Collaborative Practice Committee
1990-1992	Utilization Management Committee
1991-1997	HELP Computer Core Group Committee
1993-1997	Quality Council

VI. PROFESSIONAL COMMUNITY ACTIVITIES

Civic

1990-1991 Co-chairperson of Fortuna Action Committee working with local government to preserve space for a neighborhood park as a school and its grounds were being razed for a housing development.

Local Schools

1990, 1991 Collaborated with Barbara Ward to present a maturation and sex-education program to grades 3-8 at Redeemer Lutheran School.

VII. UNIVERSITY COMMUNITY ACTIVITIES

School of Medicine Committees

M.S. Hershey Medical Center

Pennsylvania State University

Hershey, PA

1980-1985

Student Research Problem-Solving Project Committee

1981-1984

Medical Student Selection Committee

University of Utah

Salt Lake City, UT

1987-1989

Large Animal Research Facility Planning Committee

1988-1989

Q-Fever Immunity Evaluation Program

2003-2004

Pharmacology/Toxicology Faculty Search Committee

2007-2008

College of Pharmacy Department of Pharmacotherapy Faculty Search Committee

VIII. MEMBERSHIP IN PROFESSIONAL SOCIETIES

American Academy of Pediatrics, 1980
Perinatal Section

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Robert M. Ward, M.D.

Clinical Pharmacology and Therapeutics Section
American Academy of Pharmaceutical Physicians, 1997
American Chemical Society, 1970
American College of Clinical Pharmacology, 1986
American Society for Clinical Pharmacology and Therapeutics, 1983
American Pediatric Society 2009
European Society for Pediatric Research, 1990
International Union of Pharmacology, 1985
National Perinatal Association, 1984
Society for Pediatric Research, 1987
Society for Fetal Urology, 1988
The Royal Society of Medicine, 1991
Western Society for Pediatric Research, 1985

Activities

American Board of Pediatrics

Sub-board of Neonatal-Perinatal Medicine

(b) (6)
Examination Committee, (b) (6) Neonatal-Perinatal Board Examination

1 (b) (6)
Examination Committee, (b) (6) Neonatal-Perinatal Board Examination

(b) (6)
Examination Committee, (b) (6) Neonatal-Perinatal Board Examination

American Academy of Pediatrics

Section on Clinical Pharmacology and Therapeutics

1988-1997 Executive Committee

Committee on Drugs

1994 - 2001 Core Committee

1997: Subcommittee to rewrite FDA
"General Considerations for the Clinical Evaluation of
Drugs in Infants and Children."

1997 - 2001 Chair

IX. TEACHING RESPONSIBILITIES

Pennsylvania State University, Department of Pharmacology

Pharmacology 501 lectures to medical students, graduate students

Anticoagulants - 1981-1985

Clinical Correlation in Drug Action: Pediatric Pharmacology,
1982-1985 (with Dr. (b) (6))

Graduate School Thesis Committee

Pennsylvania State University

(b) (6) The Formation of Polar Metabolites and a Metabolic Intermediate - Cytochrome P-450 Complex during the Metabolism of Propranolol. Ph.D. November, 1982

(b) (6) S. Perinatal Exposure to Methadone - Drug and Steroid Metabolism in the Developing and Mature Rat. Ph.D. August, 1983. Pennsylvania State University School of Medicine.

University of Utah

(b) (6) A Description of Suspected Adrenal Insufficiency in Premature Infants. M.S.N. May, 1991. University of Utah College of Nursing.

(b) (6). Neonatal Glucose Determinations Obtained From an Umbilical Artery Catheter: Evaluation for Accuracy Using an In Vitro Model. M.S.N. June, 1992. University of Utah College of Nursing.

(b) (6) The Role of Opioid & NMDA Antagonist Interactions on the Development of Tolerance in the Pediatric Population. 2005-2007. PhD 2007. Pharmacology/Toxicology

(b) (6), MSN. Neonatal Abstinence Syndrome. PhD program. University of Utah College of Nursing. 2011-

(b) (6) Airway Metabolism of Inhaled Corticosteroids. 2011-. Pharmacology/Toxicology

Post-doctoral Student Supervision

University of Utah

(b) (6) M.D.
Pediatric Resident Research Elective - 1986
Study of ceftazidime kinetics and renal function following fetal unilateral urinary tract obstruction

(b) (6) M.D.
Resident in Urology at the University of Utah
Studies of fetal urinary tract obstruction in sheep from 1985-1987 leading to an abstract presentation to the Pediatric Urology Section of the American Academy of Pediatrics in 1988, and publication in J. Urology.

(b) (6) M.D.
2004-2005. Fellow in Neonatology-University of Utah.
Studies of pain scales in neonates, evaluation of efficacy and kinetics of morphine in preterm neonates. Evaluation of prostacyclin efficacy and adverse effects in newborns

K23 Committees: Duke University Medical Center, University of Utah School of Medicine

(b) (6) MD
2009-2014. Pediatric Infectious Diseases Fellow-Duke University
Medical Center, K 23 Committee
Pharmacokinetics of Antimicrobials in High Risk Infants

(b) (6) MD
2010-2014, Fellow in General Pediatrics-University of Utah School
of Medicine, K 23 Committee
Optimizing Maternal Influenza Immunization to Minimize
Disease Burden in Infants

(b) (6) MD, MPH
2011-2015. Pediatric Infectious Diseases Fellow-Duke University Medical
Center, K 23 Committee
Antimicrobial pharmacokinetics and outcomes in vulnerable infants

(b) (6) MD
2011-2015 Fellow, Perinatology-University of Utah School of
Medicine, K 23 Committee
Pharmacogenomics of Preterm Birth Prevention and Treatment

Pre-doctoral Student Supervision

University of Utah

(b) (6) MSII
1993 - Summer Study Program
Review of 9 newborns with seizure-like activity
following
treatment with midazolam. Awarded best paper submitted
in the Pharmacology/ Therapeutics Section of the
Western Student Medical Research Forum at the American
Federation for Clinical Research Meeting in Carmel, CA,
1994. Findings were also presented at the National
Medical Student Research meetings in Galveston, TX,
1994.

(b) (6)
2006-2007 The Effects of Legislation to Increase the Study of
Drugs in the Pediatric Population on the Off-Label Use
of Drugs in the NICU from 1997-2005. MSN. University of
Utah College of Nursing.

(b) (6) PhD, MSI, Research elective
2008 The NONMEM pharmacokinetics analysis of methadone in 12
pediatric ICU patients. Co-direct with Dr. (b) (6)

(b) (6) BS, MS in Clinical Research
2010-2012 Pharmacogenetic analysis of resistance to inhaled
corticosteroids in pediatric patients with asthma. Co-
direct with (b) (6) MD, (b) (6) PhD

Courses Developed

Lectures developed to teach principles and practical applications
of pharmacology in the care of newborns to Neonatal Nurse
Practitioner Students at the University of Utah.

Curriculum Vitae August, 2012
Robert M. Ward, M.D.

1988 - 2 hrs/yr Principles of Pharmacology Applied to the Newborn
1989 - 2 hrs/yr

1990 - 4 hrs/yr Principles of Pharmacology Applied to the Newborn
1991 Applied Pharmacokinetics in the NICU +
2001-2005 Pharmacologic Treatment of Neonatal Hypotension

X. PUBLICATIONS Peer-Reviewed Manuscripts

1. Billets S, Carruth J, Einolf N, **Ward R**, Fenselau C. Rapid identification of acute drug intoxications. *Johns Hopkins Med J* 1973; 133:148-55.
2. Gehrz RC, **Ward RM**, Lien RH, Thompson R, Jarvis CW. Meningitis due to combined infections. Association of *Haemophilus influenzae* type B and *Clostridium perfringens*. *Am J Dis Child* 1976; 130:877-9.
3. **Ward RM**, Mirkin BL. Treatment of nasal congestion: a 1932 advertisement. *Ann Intern Med* 1977; 87:49.
4. Rothberg AD, Marks KH, **Ward RM**, Maisels MJ. The metabolic effects of caffeine in the newborn infant. *Pediatr Pharmacol (New York)* 1981; 1:181-6.
5. **Ward RM**, Maisels MJ. Metabolic effects of methylxanthines. *Semin Perinatol* 1981; 5:383-8.
6. **Ward RM**, Cooper MJ, Mirkin BL. Determination of tolazoline in plasma by gas chromatography-mass spectrometry. *J Chromatogr* 1982; 231:445-50.
7. Lorenz RP, Appelbaum PC, **Ward RM**, Botti JJ. Chorioamnionitis and possible neonatal infection associated with *Lactobacillus* species. *J Clin Microbiol* 1982; 16:558-61.
8. **Ward RM**, Sattler FR, Dalton AS, Jr. Assessment of antifungal therapy in an 800-gram infant with candidal arthritis and osteomyelitis. *Pediatrics* 1983; 72:234-8.
9. Mirkin BL, **Ward RM**, Green TP. Disposition of drugs in preterm infants with patent ductus arteriosus - theoretical and empirical considerations. *Pediatr. Cardiol* 1983; 4:85-92.
10. Berlin CM, Jr., Denson HM, Daniel CH, **Ward RM**. Disposition of dietary caffeine in milk, saliva, and plasma of lactating women. *Pediatrics* 1984; 73:59-63.
11. **Ward RM**, Daniel CH, Willes SR, Gallaher KJ. Tolazoline pharmacokinetics in lambs. *Pediatr Pharmacol (New York)* 1984; 4:101-7.
12. **Ward RM**. Pharmacology of tolazoline. *Clin Perinatol* 1984; 11:703-13.
13. Towfighi J, Young RS, **Ward RM**. Is Werdnig-Hoffmann disease a pure lower motor neuron disorder? *Acta Neuropathol (Berl)* 1985; 65:270-80.
14. Egan N, **Ward R**, Olmstead M, Marks JG, Jr. Junctional epidermolysis bullosa and pyloric atresia in two siblings. *Arch Dermatol* 1985; 121:1186-8.

15. **Ward RM**, Daniel CH, Kendig JW, Wood MA. Oliguria and tolazoline pharmacokinetics in the newborn. *Pediatrics* 1986; 77:307-15.
16. Bellinger MF, **Ward RM**, Boal DK, Zaino RJ, Sipio JC, Wood MA. Renal function in the fetal lamb: a chronic model to study physiological effects of ureteral ligation and deligation. *J Urol* 1986; 136:225-8.
17. Abman SH, Wilkening RB, Ward RM, Accurso FJ. Adaptation of fetal pulmonary blood flow to local infusion of tolazoline. *Pediatr Res* 1986; 20:1131-5.
18. Todesco LM, Thoma JJ, Barth RD, Myers NJ, White R, **Ward RM**. Quantitative determination of tolazoline in human serum by high performance liquid chromatography. *Ther Drug Monit* 1987; 9:78-84.
19. **Ward RM**, Green TP. Developmental pharmacology and toxicology: principles of study design and problems of methodology. *Pharmacol Ther* 1988; 36:309-34.
20. **Ward RM**. Maternal-placental-fetal unit: unique problems of pharmacologic study. *Pediatr Clin North Am* 1989; 36:1075-88.
21. Banner W, Jr., Vernon DD, **Ward RM**, Sweeley JC, Dean JM. Continuous arteriovenous hemofiltration in experimental iron intoxication. *Crit Care Med* 1989; 17:1187-90.
22. **Ward RM**, Starr NT, Snow BW, Bellinger MF, Pysker TJ, Zaino RJ. Serial renal function in an ovine model of unilateral fetal urinary tract obstruction. *J Urol* 1989; 142:652-6; discussion 667-8.
23. Brockmeyer DL, Wright LC, Walker ML, **Ward RM**. Management of posthemorrhagic hydrocephalus in the low-birth-weight preterm neonate. *Pediatr Neurosci* 1989; 15:302-7; discussion 308.
24. **Ward RM**. Pharmacokinetic Principles: Part I, Back to basics for the newborn. *Neonatal Pharmacol Quart* 1993; 2:19-24.
25. **Ward RM**. Drug therapy of the fetus. *J Clin Pharmacol* 1993; 33:780-9.
26. Butler LA, Karp T, McCance KL, **Ward RM**. Neonatal glucose determinations obtained from an umbilical artery catheter: evaluation for accuracy using an in vitro model. *Neonatal Netw* 1993; 12:31-5.
27. Sharony R, Garber A, Viskochil D, et al. Preaxial ray reduction defects as part of valproic acid embryofetopathy. *Prenat Diagn* 1993; 13:909-18.
28. **Ward RM**. Pharmacologic enhancement of fetal lung maturation. *Clin Perinatol* 1994; 21:523-42.
29. **Ward RM**. Pharmacological treatment of the fetus. Clinical pharmacokinetic considerations. *Clin Pharmacokinet* 1995; 28:343-50.
30. Day RW, Lynch JM, White KS, **Ward RM**. Acute response to inhaled nitric oxide in newborns with respiratory failure and pulmonary hypertension. *Pediatrics* 1996; 98:698-705.
31. Cannon C, Dildy GA, **Ward R**, Varner MW, Dudley DJ. A population-based study of congenital diaphragmatic hernia in Utah: 1988-1994. *Obstet Gynecol* 1996; 87:959-63.

32. Sun M, Tien J, Jones R, **Ward R**. A new approach to reproducibility assessment: clinical evaluation of SpaceLabs Medical oscillometric blood pressure monitor. *Biomed Instrum Technol* 1996; 30:439-48.
33. **Ward RM**. Pharmacology of the maternal-placental-fetal-unit and fetal therapy. *Progr. Pediatr. Cardiol.* 1996; 5:79-89.
34. Unapproved uses of approved drugs: the physician, the package insert, and the Food and Drug Administration: subject review. American Academy of Pediatrics Committee on Drugs (**Ward, RM**, member). *Pediatrics* 1996; 98:143-5.
35. Medication for children with attentional disorders. American Academy of Pediatrics Committee on Children With Disabilities and Committee on Drugs (Ward, RM, member). *Pediatrics* 1996; 98:301-4.
36. Use of codeine- and dextromethorphan-containing cough remedies in children. American Academy of Pediatrics. Committee on Drugs (**Ward, RM**, member). *Pediatrics* 1997; 99:918-20.
37. Considerations related to the use of recombinant human growth hormone in children. American Academy of Pediatrics Committee on Drugs and Committee on Bioethics (**Ward, RM**, member). *Pediatrics* 1997; 99:122-9.
38. "Inactive" ingredients in pharmaceutical products: update (subject review). American Academy of Pediatrics Committee on Drugs (**Ward, RM**, member). *Pediatrics* 1997; 99:268-78.
39. Kessel J, **Ward RM**. Congenital malformations presenting during the neonatal period. *Clin Perinatol* 1998; 25:351-69.
40. Grindler D, **Ward RM**. Public Meeting on the FDA's Proposed Regulation Requiring Manufacturers to Assess the Safety and Effectiveness of New Drugs and Biological Products in Pediatric Patients. *J. Ped. Pharm. Pract.* 1997; 2:331-335.
41. Alternative routes of drug administration--advantages and disadvantages (subject review). American Academy of Pediatrics (**Ward, RM**, member). Committee on Drugs. *Pediatrics* 1997; 100:143-52.
42. Drugs for pediatric emergencies. Committee on Drugs, Committee on Drugs, 1996 to 1997, Liaison Representatives, and AAP Section Liaisons (Ward, RM, member). *Pediatrics* 1998; 101:E13.
43. Neonatal drug withdrawal. American Academy of Pediatrics Committee on Drugs (**Ward, RM**, member). *Pediatrics* 1998; 101:1079-88.
44. Prevention of medication errors in the pediatric inpatient setting. American Academy of Pediatrics (**Ward, RM**, member). Committee on Drugs and Committee on Hospital Care. *Pediatrics* 1998; 102:428-30.
45. **Ward RM**, Lemons JA, Molteni RA. Cisapride: a survey of the frequency of use and adverse events in premature newborns. *Pediatrics* 1999; 103:469-72.

Curriculum Vitae August, 2012
Robert M. Ward, M.D.

46. Bush PJ, Ozias JM, Walson PD, **Ward RM**. Ten guiding principles for teaching children and adolescents about medicines. *US Pharmacopeia. Clin Ther* 1999; 21:1280-4.
47. American Academy of Pediatrics Committee on Drugs Subcommittee (**RM Ward** - member): Guidelines for the study of drugs in children.(submitted to FDA, 1998).
48. Lugo RA, Kenney JK, Keenan J, Salyer JW, Ballard J, **Ward RM**. Albuterol delivery in a neonatal ventilated lung model: Nebulization versus chlorofluorocarbon- and hydrofluoroalkane-pressurized metered dose inhalers. *Pediatr Pulmonol* 2001; 31:247-54.
49. **Ward RM**. Opioid tolerance to sedation and analgesia. *Pediatr Res* 2000; 47:705-6.
50. Prevention and management of pain and stress in the neonate. American Academy of Pediatrics (**Ward, RM**, member). Committee on Fetus and Newborn. Committee on Drugs. Section on Anesthesiology. Section on Surgery. Canadian Paediatric Society. Fetus and Newborn Committee. *Pediatrics* 2000; 105:454-61.
51. Use of psychoactive medication during pregnancy and possible effects on the fetus and newborn. Committee on Drugs. American Academy of Pediatrics (**Ward, RM**, member). *Pediatrics* 2000; 105:880-7.
52. **Ward RM**. Difficulties in the study of adverse fetal and neonatal effects of drug therapy during pregnancy. *Semin Perinatol* 2001; 25:191-5.
53. **Ward RM**. Children, drugs, and the Food and Drug Administration: studies of pediatric drugs are beginning to catch up. *Pediatr Ann* 2001; 30:189-94.
54. Transfer of drugs and other chemicals into human milk. Committee on Drugs. American Academy of Pediatrics (**Ward, RM**, member) *Pediatrics* 2001; 108:776-89.
55. Acetaminophen toxicity in children. Committee on Drugs. American Academy of Pediatrics (**Ward, RM**, member) *Pediatrics* 2001; 108:1020-4.
56. Uses of drugs not described in the package insert (off-label uses). Committee on Drugs. American Academy of Pediatrics (**Ward, RM**, member) *Pediatrics* 2002; 110:181-3.
57. **Ward RM**, Beachy JC. Neonatal complications following preterm birth. *Bjog* 2003; 110 Suppl 20:8-16.
58. Kearns GL, Robinson PK, Wilson JT, Wilson-Costello D, Knight GR, **Ward RM**, van den Anker JN; Pediatric Pharmacology Research Unit Network. Cisapride disposition in neonates and infants: in vivo reflection of cytochrome P450 3A4 ontogeny. *Clin Pharmacol Ther* 2003; 74:312-25.
59. Blumer JL, Heyman MB, Vandenplas Y, **Ward RM**. What safety data are needed for a medication to treat gastroesophageal reflux in premature infants? In children younger than 1 year of age? How to design a long-term safety registry for children? *J Pediatr Gastroenterol Nutr* 2003; 37 Suppl 1:S69-71.
60. **Ward RM**, Lugo RA. Cardiovascular drugs for the newborn. *Clin Perinatol* 2005; 32:979-97.

Curriculum Vitae August, 2012
Robert M. Ward, M.D.

61. Stevenson DA, Pysher TJ, **Ward RM**, Carey JC. Familial congenital non-immune hydrops, chylothorax, and pulmonary lymphangiectasia. *Am J Med Genet A* 2006; 140:368-72.
62. **Ward RM**. Drug disposition in the late preterm ("near-term") newborn. *Semin Perinatol* 2006; 30:48-51.
63. **Ward RM**, Lane RH, Albertine KH. Basic and translational research in neonatal pharmacology. *J Perinatol* 2006; 26 Suppl 2:S8-S12.
64. Berul CI, **Ward RM**, Kearns GL, Kerstens R, Robinson PK, van den Ouweland FA: Electrographic observations in premature and term infants on cisapride therapy. *Paediatr Perinat Drug Ther* 2005; 7:77-88.
65. **Ward RM**, Benitz WE, Benjamin, Jr DK, Blackmon L, Giacoia G, Hudak M, Lasky L, Rodriguez W, Selen A: Criteria supporting the study of drugs in the newborn. *Clin Ther* 2006;28:1385-1398.
66. **Ward RM**, Kauffman RA: Future of Pediatric Therapeutics: Reauthorization of BPCA and PREA. *Clin Pharm Ther* 2007;81:477-479.
67. Stevenson DA, Turkmen S, Pysher TJ, **Ward RM**, Carey JC: Genetic basis of pulmonary lymphangiectasia. *Helix Review Series* 2007;4:10-13.
68. Wade KC, Wu D, Kaufman DA, **Ward RM**, Benjamin Jr. DK, Sullivan JE, Ramey N, Jayaraman B, Hoppu K, Adamson PC, Gastonguay MR, Barrett JS. Population pharmacokinetics of fluconazole in young infants. *Antimicrob Ag Chemo* 2008;52:4043-9
69. Aranda JV, Clyman R, Cox B, van Overmiere B, Wozniak P, Sosenko I, Carlo W, Shalwitz R, Baggs G, Seth A, Gomez G, **Ward R**, Darko L. A randomized double blind placebo controlled trial on intravenous ibuprofen for early closure of patent ductus arteriosus (PDA) in preterm newborns. *Am J Perinatol*, 2009;26(3):235-45.
70. **Ward RM**, Kern SE. Neonatal clinical trials-a therapeutic imperative. *Clin Pharmacol Ther*, 2009;86: 585-587.
71. Wade KC, Benjamin DK Jr, Kaufman DA, **Ward RM**, Smith PB, Jayaraman B, Adamson PC, Gastonguay MR, Barrett JS. Fluconazole dosing for the prevention or treatment of invasive candidiasis in young infants. *Pediatr Infect Dis J*. 2009 Aug;28(8):717-23.
72. **Ward RM**, Tammara B, Sullivan SE, Stewart DL, Rath N, Meng X, Maguire MK, Comer GM. Single-dose, multiple-dose, and population pharmacokinetics of pantoprazole delayed-release granules in neonates and preterm infants with a clinical diagnosis of gastroesophageal reflux disease (GERD). *Eur J Clin Pharmacol*. 2010;66(6):555-61.
73. Murai T, Reilly CA, **Ward RM**, Yost GS. The inhaled glucocorticoid fluticasone propionate efficiently inactivates cytochrome P450 3A5, a predominant lung P450 enzyme. *Chem Res Toxicol*. 2010;23(8):1356-64
74. Nelson, RE, McAdam-Marx C, Evans ML, **Ward R**, Campbell B, Brixner D, Lafleur J. Patent Extension Policy for Paediatric Indications: An Evaluation of the Impact

within Three Drug Classes in a State Medicaid Programme. Appl Health Econ Health Policy. 2011 May 1;9(3):171-81

75. **Ward RM**, Kearns GL, Tammara B, Bishop P, O’Gorman MA, James LP, Katz MH, Maguire MK, Rath N, Meng X, Comer GM. A Multicenter, Randomized, Open-Label, Pharmacokinetics and Safety Study of Pantoprazole Tablets in Children and Adolescents Aged 6 Through 16 Years With GERD. J Clin Pharm. 2011;51(6):876-87
76. Smith PB, Cohen-Wolkowicz M, Castro LM, Poindexter B, Bidegain M, Weitkamp JH, Schelonka RL, **Ward RM**, Wade K, Valencia G, Burchfield D, Arrieta A, Bhatt-Mehta V, Walsh M, Kantak A, Rasmussen M, Sullivan JE, Finer N, Brozanski BS, Sanchez P, van den Anker J, Blumer J, Kearns GL, Capparelli EV, Anand R, Benjamin DK Jr; on behalf of the Meropenem Study Team. Population pharmacokinetics of meropenem in plasma and cerebrospinal fluid of infants with suspected or complicated intra-abdominal infections. Pediatr Infect Dis J. 2011;30(10):844-849.
77. Tammara BK, Sullivan JE, Adcock KG, Kierkus J, Giblin J, Rath N, Meng X, Maguire MK, Comer GM, **Ward RM**. Randomized, open-label, multicentre pharmacokinetic studies of two dose levels of pantoprazole granules in infants and children aged 1 month through <6 years with gastro-oesophageal reflux disease. Clin Pharmacokinet. 2011;50(8):541-50.
78. Price KE, Pearce RE, Garg UC, Heese BA, Smith LD, Sullivan JE, Kennedy MJ, Bale JF Jr, **Ward RM**, Chang TK, Abbott FS, Leeder JS. Effects of valproic acid on organic acid metabolism in children: a metabolic profiling study. Clin Pharmacol Ther. 2011;89(6):867-74. Epub 2011 May 4.
79. Du W, Lehr VT, Lieh-Lai M, Koo W, **Ward R**, Rieder M, Van Den Anker J, Reeves J, Mathew M, Lulic-Botica M, Aranda J. An algorithm to detect adverse drug reactions in the neonatal intensive care unit - a new approach. J Clin Pharm. 2012 Jan 18. [Epub ahead of print]
80. **Ward, RM** and (b) (6) (b) (6) 2011, In Press.
81. Doby EH, Benjamin DK, Blaschke AJ, **Ward, RM**, Pavia AT, Cohen-Wolkowicz JM, Moran C. Therapeutic Drug Monitoring of Voriconazole in Children Less Than 3 years of age: A Case Report and Summary of Pharmacokinetic Data for Ten Children. Ped Infect Dis J. 2012;31:632-5
82. Redwine K, Howard L, Simpson P, Li S-H, Yan K, James L, Blumer J, Sullivan J, **Ward R**, Wells T, for the Network of Pediatric Pharmacology Research Units. Effect of Placebo on Ambulatory Blood Pressure Monitoring in Children. Pediatric Nephrology, 2012, May 24 Epub ahead of print
83. (b) (6) (b) (6) and Ward RM. (b) (6) Submitted. 2012.

XI. CHAPTERS, BOOKS

1. **Ward RM**, Singh S and Mirkin BL: Fetal clinical pharmacology, In Drug Treatment (2nd ed); Avery, GS (ed); 1980, Sydney, Australia, Adis Press, pp. 76-96.
2. **Ward RM** and DeWitte DB: Common neonatal illnesses. In Primary Pediatric Care; Hoeckelman RA, Blatman S, Friedman SB, Nelson NM and Seidel HM (eds). 1987, St. Louis, C.V. Mosby Co., pp. 542-556.
3. **Ward RM**: Persistent pulmonary hypertension. In Current Therapy in Neonatal/Perinatal Medicine-2; Nelson, NM (ed). 1989, Philadelphia, B.C.Decker Inc., pp. 331-338.
4. **Ward RM**: Pharmacologic principles and practicalities. In Schaffer and Avery's Diseases of the Newborn (6th ed); Taeusch HW, Ballard RA and Avery ME (eds). 1991, Philadelphia, W.B. Saunders Co. 285-292. Ward, RM: Appendix 1, Drugs: ibid pp. 1049-1061.
5. **Ward RM** (ed): Formulary of Primary Children's Medical Center. IHC, Salt Lake City, 1989, Rev. 1991.
6. **Ward RM**: Neonatal pharmacology. In Comprehensive Neonatal Nursing Care: A Physiologic Perspective; Kenner C, Brueggemeyer A and Gunderson L (eds). 1993, Philadelphia, W.B. Saunders Co., 926-939.
7. **Ward RM**: The use of therapeutic drugs: In Neonatology: Pathophysiology and Management of the Newborn (4th ed); Avery GBN, Fletcher MA, and MacDonald M (eds): 1994, Philadelphia, J.B. Lippincott Co. 1271-1299.
8. **Ward RM** and Mirkin BL: Perinatal/neonatal pharmacology. In Human Pharmacology: Molecular-to-Clinical (2nd ed). Brody TM, Larner J, Minneman KP, Neu HC (eds). 1994, St. Louis, Mosby Year Book. 843-854.
9. **Ward RM** and Mirkin BL: Perinatal/neonatal pharmacology. In Human Pharmacology: Molecular-to-Clinical (3rd ed). Brody TM, Larner J, Minneman KP (eds). 1998, St. Louis, Mosby Year Book. 873-883.
10. **Ward RM**: Pharmacologic principles and practicalities: In Avery's Diseases of the Newborn (7th ed). Taeusch HW, Ballard RA (eds). 1998, Philadelphia, W.B. Saunders Company. 404-412.
11. **Ward RM**, Lugo RA: Drug Therapy in the Newborn. In Neonatology: Pathophysiology and Management of the Newborn (5th ed). Avery GBN, Fletcher MA, and MacDonald M (eds): 1999, Philadelphia, J.B. Lippincott Co. 1363-1406.
12. **Ward RM**, Lugo RA: Clinical pharmacology for the neonatologist. In Current Topics in Neonatology, Number 4. Hansen TN, McIntosh N (eds): 2000; Philadelphia, WB Saunders. 214-242.
13. Cote CJH, Lugo RA, **Ward RM**: The pharmacokinetics and the pharmacology of drugs used in children. In A Practice of Anesthesia for Infants and

Curriculum Vitae August, 2012
Robert M. Ward, M.D.

Children (3rd ed). Cote' CJ, Todres ID, Goudsouzian NG, Ryan JF (eds.): 2001, Philadelphia, WB Saunders. 121-171.

14. **Ward RM:** Adverse effects of drugs in the newborn. In Rudolph's Pediatrics (21st ed). Rudolph CD, Rudolph AM, Hostetter MK, Lister G, Siegel NJ (eds): 2003, New York, McGraw-Hill. 146-148.
15. Lugo RA, **Ward RM:** Basic pharmacokinetic principles. In Fetal and Neonatal Physiology (3rd ed). Polin RA, Fox WW, Abman SH (eds): 2004, Philadelphia, Harcourt Health Sciences. 190-197.
16. **Ward RM**, Lugo RA: Pharmacologic principles and practicalities: In Avery's Diseases of the Newborn (8th ed). Taeusch HW, Ballard RA, Gleason CA (eds). 2005, Philadelphia, W.B. Saunders Company. 427-437
17. **Ward RM:** Pharmacopeia: In Avery's Diseases of the Newborn (8th ed). Taeusch HW, Ballard RA, Gleason CA (eds). 2005, Philadelphia, W.B. Saunders Company. 1557-1572.
18. **Ward RM**, Lugo RA: Drug therapy in the newborn. In Avery's Neonatology: Pathophysiology and Management of the Newborn (6th ed). MacDonald MG, Seshia, MMK, and Mullett, MD(eds): 2005, Philadelphia, Lippincott Williams & Wilkins, 1507-1556.
19. Cote CJH, Lerman J, **Ward RM**, Lugo RA, Goudsouzian N. The pharmacokinetics and the pharmacology of drugs used in children. In Cote CJ; Lerman J; Todres ID (eds.) In A Practice of Anesthesia for Infants and Children(4th ed): 2009, Philadelphia, Saunders Elsevier. 89-146
20. Lugo RA, Kern, SE, **Ward RM:** Basic pharmacokinetic principles. In Fetal and Neonatal Physiology (4th ed). Polin RA, Fox WW, Abman SH (eds): 2011, Philadelphia, Elsevier Saunders,224-230.
21. **Ward RM**, Kern, SE, Lugo RA: Pharmacokinetics, Pharmacodynamics, and Pharmacogenetics: In Avery's Diseases of the Newborn (9th ed). Gleason CA, Devaskar SU (eds): 2012, Philadelphia, Elsevier Saunders. 417-428.

XII. Editorials, Commentary

1. Galinsky RE, **Ward RM.** Comment: ambulatory kinetic monitoring. .Drug Intell Clin
2. **Ward, RM:** The use of midazolam in the NICU. Neonatal Pharmacol Quart, 2: 36, 1993.
3. **Ward, RM** and Zenk KE: Incorrect route. Neonatal Pharmacol Quart, 2: 37, 1993.
4. **Ward, RM:** Foreward. In Zenk KE, Sills JH, and Koepfel RM: Neonatal Medications & Nutrition. Santa Rosa, CA; NICU INK, pp. iii-iv, 1999.
5. **Ward, RM:** Neonatology, Drugs and the FDA. American Academy of Pediatrics, Perinatal Section News, 25:1-2, 1999.

6. Watt KM, Cohen-Wolkowicz M, **Ward RM**, Benjamin DK Jr. COMMENTARY: Pediatric Antifungal Drug Development: Lessons Learned and Recommendations for the Future. *Pediatr Infect Dis J.* 2012 Jun;31(6):635-7

XIII. ABSTRACTS

- A1. Ward RM, Sockalosky JJ, Dolan LM, Stealy T and Ulstrom RA: Hypercalcemia responsive to aspirin. Presented at 48th Meeting of the Society for Pediatric Research, New York. *Pediatr. Res.* 12:514, 1978.
- A2. Ward RM, Singh S and Mirkin BL: Pulmonary and systemic circulatory responses of neonatal lambs to tolazoline. *Pediatr. Res.* 13:509, 1979.
- A3. Ward RM, Mirkin BL and Singh S: Response of infants with low cardiac output (LCO) to dobutamine (Db). *Pediatr. Res.* 15:686, 1981.
- A4. Ward RM, Mirkin BL, Singh S and Daniel C: Developmental increase in the cardiac chronotropic response to isoproterenol (IS). *Pediatr. Res.* 15:503, 1981.
- A5. Ward RM, Daniel CH and Willis SR: Concentration-related lowering of pulmonary vascular resistance (PVR) relative to systemic vascular resistance (SVR) by tolazoline (TZ). Presented at 52nd Meeting of the Society for Pediatric Research, Washington, D.C. *Pediatr. Res.* 16:132, 1982.
- A6. Ward RM, Kendig JW and Daniel CH: Potentially lethal accumulation of tolazoline in neonates with oliguria. *Pediatr. Res.* 16:313, 1982.
- A7. Berlin CM, Denson HM, Daniel CH and Ward RM: Excretion of dietary caffeine (C) in human milk (M) and saliva (S). *Pediatr. Res.* 19:121A, 1982.
- A8. Ward RM, Kendig JW, Daniel CH and Addison JL: Relationship between urine output and tolazoline (T) half-life. *Pediatr. Res.* 18:162A, 1984.
- A9. Ward RM, Kendig JW, Daniel CH and Addison JL: Tolazoline (T) dose adjustments based upon neonatal pharmacokinetics. Presented at 53rd Meeting of the Society for Pediatric Research, San Francisco, California. *Pediatr. Res.* 18:354A, 1984.
- A10. Abman SH, Accurso FG, Ward RM and Wilkening, RB: Adaptation of fetal pulmonary blood flow to local infusion of tolazoline. *Pediatr. Res.* 19:148A, 1985.
- A11. Ward RM, Wood MA, Donahue ML and Addison JL: Tolazoline (T) induced oliguria. *Pediatr. Res.* 19:181A, 1985.
- A12. Ward RM, Wood MA, Donahue ML and Addison JL: Tolazoline induced oliguria. October, 1985; Presented at 14th Annual Meeting - American College of Clinical Pharmacology; Philadelphia, PA. *J. Clin. Pharmacol.* 25:467, 1985.
- A13. Ward RM, Gooch WM, Bellinger MF, Snow BW and Davis S: Effects of congenital obstructive uropathy ceftazidime excretion by lambs.

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Robert M. Ward, M.D.

Presented at 15th Annual Meeting - American College of Clinical Pharmacology; Philadelphia, PA. J. Clin. Pharmacol. 26:549, 1986.

- A14. Ward RM, Bellinger MF, Snow BW, Gooch WM and Davis S: Ceftazidime (CTZ) clearance with congenital urinary tract obstruction (UTO). Presented at 56th Meeting of the Society for Pediatric Research, Anaheim, CA. *Pediatr. Res.* 21:243A, 1987.
- A15. Rich-Denson C, Kimura RE, Kivlin JD, Trainor S, Jung AL and Ward RM: Retinopathy of prematurity (ROP) as a possible complication of surfactant therapy for very low birth weight infants. Presented at 57th Meeting of the Society for Pediatric Research, Washington, DC. *Pediatr. Res.* 23:263A, 1988.
- A16. Starr NT, Ward RM, Snow BW, Bellinger MF: Serial renal function in an ovine model of unilateral fetal urinary tract obstruction (FUTO). Presented at the 57th Meeting of the American Academy of Pediatrics - Section on Urology; San Francisco, CA.; October, 1988.
- A17. Ward RM and Mirkin BL: Cardiovascular (CV) responses of infants to dobutamine (DB). Presented at the 58th Meeting of the Society for Pediatric Research, Washington, D.C. *Pediatr. Res.* 25:73A, 1989.
- A18. Ward RM, Kimura RK, and Rich-Denson C: Addisonian crisis in extremely premature neonates. Presented at the Western Society for Pediatric Research, Carmel, CA. *Clin Res* 39: 11A, 1991.
- A19. Jung AL, Molteni RA, Chan, GM, Ward RM, and Coulter DM: Prophylactic vs early RDS treatment with surfactant. Presented at the Western Society for Pediatric Research, Carmel, CA. *Clin Res* 39: 41A, 1991.
- A20. Philips J. Ward RM, Tyson J, Poland R, Wright E, Malloy M: Effects and pharmacokinetics of tolazoline (TZ) in persistent pulmonary hypertension of the newborn (PPHN). Presented at American Pediatric Society and The Society For Pediatric Research, 1991. *Pediatr Res.* 9: 62A, 1991.
- A21. Ward RM, and Magarian SH: Lack of gentamicin toxicity in pediatric patients following inadvertent excessive doses. *Pediatr Res.* 33: 71A, 1993.
- A22. Grawe G, Ward RM: Seizure-like activity following bolus administration of midazolam to neonates. Presented at the Western Medical Student Research Forum, Carmel, CA. *Clin Res* 42: 16A, 1994.
- A23. Cannon C, Dudley D, Dildy G, Ward R, Jackson GM, and Varner M: A review of congenital diaphragmatic hernia (CDH) in Utah (1988-93): An analysis of 75 cases. Presented at the 13th meeting of the International Fetal Medicine and Surgery Society, Antwerp, Belgium, 1994.
- A24. Day RW, Lynch JM, White KS, and Ward RM: Inhaled nitric oxide in newborns with pulmonary hypertension: The radiographic severity of lung disease corresponds with the degree of acute improvements in systemic oxygenation. Presented at American Pediatric Society and The Society for Pediatric Research, San Diego, 1995.

- A25. Lugo RA, Kenney JK, Keenan J, Salyer JW, Ballard J, Ward RM. Albuterol delivery in a neonatal ventilator-lung model. American Academy of Pediatrics, San Francisco, CA. 1998. Pediatrics 1998;102 (supplement)703.
- A26. Lugo RA, Keenan J, Ward RM, Salyer JW. Variability in albuterol delivery with Proventil HFA® and Ventolin® metered dose inhalers (MDIs). American Association of Respiratory Care, Atlanta, GA, 1998.
- A27. Hougland KT, Null D, Ward RM. Epoprostenol in PPHN. Pediatr Res 2005;
- A28. Phelps D, Ward R on behalf of the NICHD Neonatal Research Network and the NIH Pediatric Pharmacology Research Units. Inositol Blood Levels in Preterm and Term Neonates. Presented at the Pediatric Academic Society. Toronto, Ontario. 2007.
- A29. Kiang, T K L, Teng X W, Michoulas A, Farrell K, Chang TKH, Pearce RE, Kennedy MJ, Ward R, Leeder JS, Abbott FS. Correlational Analyses of Urinary Levels of Valproic Acid Metabolites and 15-F_{2t}-isoprostane in Children on Valproic Acid. International Society for the Study of Xenobiotics. Oct 9-12, 2007 Sendai, Japan
- A30. Forbey JS, Kern S, Lieh-Lai MW, Kauffman RE, Ward RM. Morphine analgesia and developmental kinetics in 3 to 18 year old children. Pediatric Academic Society. Honolulu, HI. 2008.
- A31. Nelson R LaFleure J, Ward RM. Patent extension policies for pediatric indications. Academy of Health 2008 Annual Research Meeting. June, 2008 Washington, DC.
- A 32. Tammara B, Adcock K, Kearns GL, Ward RM, Giblin JM, Shaheen C, Meng X; Maguire MK, Comer, GM. Pharmacokinetics of Two Dose Levels of Pantoprazole Sodium Granules and Tablets in Children Aged 1 Through 11 Years With Endoscopically Proven GERD. North American Society for Pediatric Gastroenterology, Hepatology and Nutrition, Nov 13-15, 2008. San Diego, CA
- A 33. Tammara B, Ward RM Kearns GL, O’Gorman M, James LP, Katz MH, Maguire MK, Rath NJ, Meng X, Comer, GM. *Pharmacokinetics of Single and Multiple Doses of Pantoprazole in Adolescents With GERD*. North American Society for Pediatric Gastroenterology, Hepatology and Nutrition, Nov 13-15, 2008 San Diego, CA.
- A 34. PB Smith, EV Capparelli, LM Castro, G Valencia, M Bidegain, R Schelonka, N Finer, J van den Anker, W MacKendrick, A Arrieta, R Ward, V Bhatt-Mehta, M Cohen-Wolkowicz, KC Wade, JL Blumer, W Hope, GL Kearns, DK Benjamin Jr. on behalf of the Meropenem Study Team. Pharmacokinetics and Safety of Meropenem in Young Infants with Intra-Abdominal Infections. Pediatric Academic Society, May 2-5, 2009, Baltimore, MD
- A 35. W Du, M Mathew, W Koo, VT Lehr, J Reeves, M Rieder, J Van Den Anker, R Ward, M Lieh-Lai, M Lulic-Botica, J Aranda. AN ALGORITHM TO DETECT ADVERSE DRUG REACTIONS IN NEONATAL INTENSIVE CARE UNITS. Pediatric Academic Society, May 2-5, 2009, Baltimore, MD.
- A 36. T Murai, CR Orton, K Shahrokh, TE Cheatham III, RM Ward, GS Yost. CYP3A5-specific mechanism-based inactivation by fluticasone propionate,

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Robert M. Ward, M.D.

an inhaled glucocorticoids. 16th International Conference on Cytochrome P450. Nago, Okinawa, June 21-25, 2009.

- A 37. Lugo RA, Cash J, Trimby R, Ward RM, Spielberg S. A Survey of Children's Hospitals on the Use of Extemporaneously Prepared Liquid Formulations. PPAG, 18th Annual PPAG Meeting. September 24-27, 2009, Cleveland, Ohio
- A 38. PB Smith, EV Capparelli, LM Castro, B Poindexter, G Valencia, M Bidegain, R Schelonka, JH Weitkamp, J van den Anker, R Ward, M Walsh, D Burchfield, A Arrieta, V Bhatt-Mehta, M Cohen-Wolkowicz, KC Wade, JL Blumer, GL Kearns, DK Benjamin Jr. on behalf of the Meropenem Study Team. Pharmacokinetics and Safety of Meropenem in Young Infants with Intra-abdominal Infections. Pediatric Academic Society 4/30-5/2, 2010. Vancouver, BC.
- A 39 Stockmann C, Fassl B, Nkoy F, Willis L, Gaedigk R, Uchida D, Leeder S, Yost G, Ward R. Genetic Polymorphisms of Cytochromes P450 and Pediatric Asthma Control. Western Society for Pediatric Research. 1/29/2011. Carmel, CA
- A 40 Stockmann C, Fassl B, Nkoy F, Willis L, Gaedigk R, Uchida D, Leeder S, Yost G, Ward R. Genetic Polymorphisms of Cytochromes P450 and Pediatric Asthma Control. Pediatric Academic Society. 4/30/2011. Denver, CO
- A 41 Ward RM, Korgenski EK, Goodman M, Buchi KF, Patel S, Sheng X, Kay M. Healthcare Costs of Neonatal Abstinence Syndrome. Pediatric Academic Society. 5/1/2011. Denver, CO
- A 42 Phelps DL, Watterberg KL, Nolen TL, Ward RM, Williams RL for the Inositol Subcommittee of the NICHD Neonatal Research Network. Inositol Serum Concentrations and Safety in a Daily Dose Ranging Study for Extremely Preterm Infants. Pediatric Academic Society. 4/28/2012. Boston, MA

XIV. SELECTED PRESENTATIONS

A: Local

Anticonvulsant Therapy During Pregnancy and Fetal Abnormalities. December, 1979; Pediatrics Days; M.S. Hershey Medical Center; Hershey, PA.

Pharmacology in the NICU. November, 1980; Neonatal Nurses Critical Care Course; Hershey, PA.

Fetal Effects of Drugs, April, 1981; Current Concepts in Family Medicine; Hershey, PA. Neonatal Pulmonary Hypertension. October, 1981; Neonatal Critical Care Course; Hershey, PA.

Pharmacologic Treatment of Neonatal Pulmonary Hypertension. April, 1982; Physiology Seminar, University of Florida; Gainesville, FL.

Pharmacodynamics of Tolazoline. June, 1983; Pediatric Grand Rounds, University of Oregon Health Sciences Center; Portland, OR.

Sudden Infant Death Syndrome. July, 1983; Perinatal Grand Rounds, Waynesboro Hospital; Waynesboro, PA.

Neonatal Pharmacology. October, 1983; Neonatal Critical Care Course, M.S. Hershey Medical Center; Hershey, PA.

Grief in the Perinatal Period. November, 1983; Neonatal Critical Care Course, M.S. Hershey Medical Center; Hershey, PA.

Group B Streptococcal Infections During Pregnancy. April, 1983; Obstetrics-Pediatric Conference, Reading Hospital; Reading, PA.

Neonatal Cardiovascular Drugs. April, 1984; Neonatal Critical Care Course, M.S. Hershey Medical Center; Hershey, PA.

Multiple Drug Exposure in VLBW Neonate. September, 1984; Clinical Pathologic Conference, Baylor University Department of Pediatrics; Houston, TX.

Case Presentation - Neonatal Pulmonary Hypertension. September, 1985; Neonatal Outreach Program, LDS Hospital, Salt Lake City, UT.

Perinatal Effects of Drug Exposure. January 1986; Perinatal Lecture Series -University of Utah Medical Center; Salt Lake City, UT.

Q-Fever. December, 1988; University of Utah Staff of Vivarium and LAF; Salt Lake City, UT.

Ethical Care of the Newborn. August, 1992; South Valley Unitarian Universalist Society, Salt Lake City, Utah.

Prenatal Use of Corticosteroids. November, 1994; Obstetrics and Gynecology Grand Rounds. University of Utah Medical Center; Salt Lake City, Utah.

Preventing Drug Errors in the Hospital. November 16, 1995; Department of Medicine Meeting. Primary Children's Medical Center; Salt Lake City, Utah.

Postnatal Effects of Antenatal Steroids. January 13-14, 1997. Neonatal Steroids: Science or Science Fiction. Park City, UT.

Pharmacology Principles Applied to the Newborn. January 15, 2002
Pharmacologic Treatment of Hypotension in Neonates. April 16, 2002.
University of Utah Neonatal Nurse Practitioner Students. Salt Lake City, UT

B: Regional

Cardiovascular Response of the Normal Newborn Lamb to Tolazoline. October, 1978; First Annual Midwestern Conference on Perinatal Research; Osage Beach, MO.

Pulmonary and Systemic Circulatory Responses of Neonatal Lambs to Tolazoline. May, 1979; Third Annual Mid-Atlantic Conference on Perinatal Research; Hershey, PA.

Drugs in Pregnancy and Other Environmental Factors. March, 1980; Pediatrics Update; Williamsport Hospital; Williamsport, PA.

Metabolic Effects of Caffeine in Low Birthweight Infants. May, 1980; 4th Mid-Atlantic Conference on Perinatal Research; Niagara Falls, NY.

Pulmonary and Systemic Cardiovascular Effects of Tolazoline. September, 1980; Neonatal Retreat of Washington Region; Skyline, VA.

The Effect of Urine Flow Upon Tolazoline Concentration in Infants. May, 1983; 7th Mid-Atlantic Conference on Perinatal Research; Baltimore, MD.

Cardiovascular Effects of Steady State Tolazoline Concentrations in Lambs. November, 1983; Oxygenation and Circulation in the Perinatal Period; Baltimore, MD.

Persistent Fetal Circulation. October, 1985; Utah Perinatal Association Annual Meeting; Salt Lake City, UT.

Pharmacology in the Newborn. June, 1989; Neonatal Nurse Practitioner Course; Grand Canyon College; Phoenix, AZ.

State of the Art in Neonatology. September, 1989; Utah Perinatal Association; Salt Lake City, Utah.

Addisonian Crisis in Extremely Premature Neonates. Poster Session: Perinatology. February, 1991; American Federation for Clinical Research. Western Society for Clinical Investigation. Western Society for Pediatric Research; Carmel, CA.

Polycythemia and High Frequency Ventilation, April, 1993; Nevada Perinatal Pediatric Conference. Las Vegas, Nevada.

Pediatric Colloquium, March 1996, March 1997, West Yellowstone, MT.

Laws & Regulations to Stimulate Pediatric Studies of Drugs. Issues in Pediatric Care 2002, Huntsman Cancer Institute, University of Utah, October 17, 2002

"Truth and Reflections in Pharmacokinetics". Visiting Scholar Program, Emory University Division of Neonatology, 9/28-29/2005, Atlanta, GA

"How Principles of Pharmacology Differ in the Newborn"

"Historical Lessons Regarding Use of New Drugs in the NICU"

"Controversies in Neonatal Drug Therapy: Erythromycin, Corticosteroids"

"Long Term Outcomes from Substance Abuse During Pregnancy"

"Using Principles of Pharmacokinetics in the NICU"

"Discussion of Pharmacokinetic Problems in the NICU"

"Population Pharmacokinetics - How it Works"
"So What's in a Label: Off Label Uses and Black Box Warnings"
"New Drugs Being Considered in Neonates"
"Evaluation and Management of Pain and Agitation in the Newborn"
"Pharmacologic Treatment of Hypotension"

C: National - International

New Cardiovascular Drugs. October, 1983; American Academy of Pediatrics; San Francisco, CA.

Clinical Trials in the Perinatal Period. March, 1985; American Society of Clinical Pharmacology and Therapeutics; San Antonio, TX.

Shock and its Treatment in the Newborn. March, 1986, 1987, 1988; Neonatal-Administrative Transport Workshop; Salt Lake City, UT.

Pharmacology of the Pulmonary Vascular Bed. September, 1986; National Association of Neonatal Nurses; New Orleans, LA.

Pharmacodynamics of Dopamine, Dobutamine and Isoproterenol. September, 1986; National Association of Neonatal Nurses; New Orleans, LA.

Pharmacodynamics of Dopamine, Dobutamine and Isoproterenol. July, 1987; Advances in Neonatal Nursing; San Diego, CA.

Pharmacology of the Pulmonary Vascular Bed. July, 1987; Advances in Neonatal Nursing; San Diego, CA.

Pharmacodynamics of Dopamine, Dobutamine and Isoproterenol. September, 1987; Advances in Neonatal Nursing; Dallas, TX.

Pharmacology of the Pulmonary Vascular Bed. September, 1987; Advances in Neonatal Nursing; Dallas, TX.

(1) Pharmacology of the Pulmonary Vascular Bed. (2) The Pharmacodynamics of Dopamine, Dobutamine and Isuprel. May, 1989; The National Association of Neonatal Nurses Clinical Update. Denver, CO.

Cardiovascular Dose Response of Infants to Dobutamine. May 27, 1989; The 14th Annual Conference on Neonatal/Perinatal Medicine. American Academy of Pediatrics, District VIII Section on Perinatal Pediatrics; Anchorage, AL.

Renal Function Measurement in the Fetus. October, 1989; Society for Fetal Urology; Chicago, Illinois.

Developmental Issues in Pediatric Drug Development. September, 1990; Third International Wexner Symposium, Drug Therapy for Children: Making the Best Drugs Available in Your Practice; Columbus, Ohio.

Developmental Issues in Pediatric Drug Development. October, 1990; Joint Session of Clinical Pharmacology and Therapeutics/Epidemiology; American Academy of Pediatrics, Boston, MA.

Pharmacology and Philosophy of Fetal Therapeutics. November, 1990; The 4th International Fetal Cardiology Symposium, Tokyo, Japan.

Perinatal Drug Abuse and Neonatal Outcome. February, 1991, March, 1992, February, 1993; March, 1994; Current Concepts in Transport: Neonatal-OB-Administrative; Salt Lake City, Utah.

National Institute of Child Health and Human Development First Annual Developmental Pharmacology Symposium. Pharmacology of the Airway. April 30, 1991. Bethesda, Maryland.
Caffeine During Pregnancy/Nursing. October 1991; Section on Clinical Pharmacology Therapeutics Program: Annual Meeting of the American Academy of Pediatrics; New Orleans, Louisiana.

Fetal Pharmacology. April, 1992; sixth International Fetal Cardiology Symposium; Dallas, Texas.

Physiology of Fetal Urinary Tract Obstruction. April 28, 1993; Grand Rounds, Children's Memorial Hospital. Chicago, Illinois.

Fetal Pharmacology. June, 1993; Seventh International Fetal Cardiology Symposium; Utrecht, The Netherlands.

(1) Neonatal Pharmacokinetics: Administration and Distribution and
(2) Neonatal Pharmacokinetics: Metabolism and Elimination, September, 1993; National Association of Neonatal Nurses 9th National Meeting, Orlando, Florida.

Pharmacokinetics in the VLBW Infant. Frontiers in Nursing: Care of the very low birthweight infant, February, 1994, Salt Lake City, Utah.

Pharmacology of the Fetal-Placental-Maternal Unit. March, 1994; Eighth International Fetal Cardiology Symposium; Atlanta, Georgia.

1995

Neonatal Pharmacology. March, 1995. Current concepts in Transport Conference. Salt Lake City, Utah.

The Royal College of Physicians and Surgeons of Canada/The Canadian Society for Clinical Investigation and Participating Societies Annual Meeting. September 13-17, 1995. Drug Prescribing in the Young and Elderly. Montreal, Quebec.

Pharmacology of Fetal Drug Therapy. September 20, 1995. Invited speaker for the 5th Annual Emily Cara Garbose Lecture at the Children's National Medical Center, Washington, DC.

1996

Clinical Pharmacology: Applications in NICU. Principles of Pharmacology, Part I and II. NeoPREP Course, AAP. September 30 - October, 1996. St. Petersburg, Florida.

1997

Principles of Pharmacology. March, 1997. Current Concepts in Transport Conference. Salt Lake City, Utah.

Shock in the Newborn, Causes and Treatment, the Pharmacology of Inotropes. LSU Seminar, May 21, 1997. New Orleans, LA.

Sedation in Our Small Patients. Taiwan, ROC, August, 1997. Taipei:

Shin Kong Hospital
Taipei Veterans General Hospital
National Taiwan University Hospital
MacKay Medical Center

Kaosiung:

Chang Gung Children's Hospital Lin-Ko
Chang Gung Medical Hospital

Taichung:

Veterans General Hospital
China Medical College Hospital

Pharmacokinetics in the Neonate-Part I, Part II.
Postnatal Effects of Antenatal Steroids. September 11-12, 1997.
National Association Neonatal Nurses, 13th Annual Meeting.
Phoenix, AZ.

Pharmacology - Part I, Part II.
Clinical Pharmacology: Applications in the NICU. September 16, 1997
NeoPREP Course, AAP. Phoenix, AZ.

Pharmacology of the Maternal-Placental-Fetal-Unit. October 6, 1997
Society of Forensic Toxicologists. Snowbird, Utah.

1998

Pediatric Drug Development and Labeling. June 1, 1998 AAP
Perspective. PhRMA Workshop. Washington, D.C.

XXXVIII Meeting of Association of European Pediatric Cardiologists.
June 11, 1998. Dublin, Ireland.
Pharmacology of Fetal Cardiovascular Therapy.

Fetal Cardiovascular System 1st International Porto Meeting.
Management of Congenital Heart Disease. Fetal and neonatal
pharmacology. October 9-10, 1998. Porto, Portugal.

1999

Pediatric Pharmacology Symposium. The State of the Art of Clinical
Pediatric Pharmacology and Pharmacology Research in Children.
Special Concerns for Studying Drugs in Neonates. March 2-3, 1999.
New Brunswick, New Jersey.

Cisapride in the NICU: Safety, Efficacy and Uncertainty. Stanford University: Pediatric Grand Rounds. March 5, 1999. Palo Alto, California.

Cisapride in the NICU: Safety, Toxicity, and Uncertainty. California Association of Neonatologists. March 6, 1999. Los Angeles, California.

L. Joseph Butterfield Lecture on Perinatal Practice, American Academy of Pediatrics and the AAP Section on Perinatal Pediatrics, Workshop on Perinatal Practice. April, 1999, Scottsdale, Arizona.

19th Annual Townsend Teaching Day in Neonatal/Perinatal Medicine at the Rochester General Hospital. May 18, 1999, Rochester, New York.

The Fetus & Newborn. State of the Art Care. September 23-25, 1999. La Jolla, California.

Cisapride and Reflux: Safety, Efficacy and Uncertainty
Pharmacologic Treatment of Hypotension

15th Annual Meeting National Association of Neonatal Nurses. December 12-15, 1999. Lake Buena Vista, FL.

Cisapride: Pharmacology, Efficacy, Toxicity, Uncertainty.

2000

Pediatric Drug Development in the 21st Century: Progress and Challenges. The Drug Information Association Workshop. April 2-4, 2000, Philadelphia, PA.

The Study of Drugs in Pediatric Subjects: Past, Present and Future.

The National Conference of Neonatal Nursing. April 13-15, 2000, Seattle, Washington.

Clinical Pharmacology: Applications in the NICU.
Pharmacology of the Placental-Maternal-Fetal Unit.
Cisapride and Reflux: Safety, Efficacy and Uncertainty.

Clinical Trials in the Academic Medical Center Involving Children and Neonates: Clinical and Regulatory Issues of the 21st Century. The Association of Clinical Research Professionals, Annual North American Meeting. May 13-18, 2000. New Orleans, Louisiana.

24th Ross Seminar on Perinatal Medicine. Controversies in Perinatal Medicine: Evidence for Current Practice. June 3-6, 2000. Santa Fe, New Mexico.

Fetal Pharmacology and Therapy
Perinatal Substance Abuse

25th Annual Perinatal Conference-The Subject of Birth. Rogue Valley Medical Center. July 27-28, 2000. Medford, Oregon.

Pharmacologic Principles Applied to the Newborn: What Makes Them Different
Pharmacologic Management of Neonatal Pain and Sedation
Case Discussions of Drug Therapy in the Nursery: How Pharmacokinetics Can be Useful

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Fetal Therapy and Pharmacology of the Maternal-Placental-
Fetal Unit

Perinatal Dilemmas-2000. July 31-August 4, 2000. Jackson,
Wyoming.

Fetal Therapy and Pharmacology of the Maternal-Placental-
Fetal Unit
Postnatal Effects of Prenatal Steroids: What are the Benefits
to the Infant
Management of Sedation and Pain in the Neonate
Cisapride and Reflux: Safety, Efficacy and Uncertainty
Pulmonary Hypertension in the Newborn: Treatment without
Nitric Oxide
Pediatrics, Drugs and the FDA

NIH Consensus Development Conference on Antenatal Corticosteroids
Revisited: Repeated Courses. August 17-18, 2000. Bethesda,
Maryland.

Pharmacology of Steroids in the Maternal-Placental-Fetal
Unit.

FDA Pediatric Advisory Subcommittee. September 11-12, 2000.
Bethesda, Maryland.

Maternal Drugs During Lactation: Research Needs.

NIH Workshop on Drugs During Pregnancy. September 25-26, 2000.
Bethesda, Maryland.

Adverse Effects of Drugs During Pregnancy.

American Academy of Pediatrics Annual Meeting, Perinatal Neonatal
Medicine Section. October 29, 2000. Chicago, Illinois.

Pharmacology in the NICU.

FDA, CDC, NIH: Concepts and Strategies to Actively Monitor the
Risks of Medications in Pregnancy. Enhancing Post-Marketing
Surveillance. November 29-30, 2000. Bethesda, MD. Invited
participant.

2001

Swanman Lecture Series, Reducing the Risks for Mother and Baby,
Portland, OR, 4/26-27/ 2001

Treatment of Shock in the Newborn
Perinatal Drug Abuse
Postnatal Effects of Prenatal Steroids

Southeastern Association of Neonatology. Marco Island, FL, 5/17-
20/2001.

Non-INO Treatment of Neonatal Pulmonary Hypertension
Pharmacologic Treatment of Hypotension in the Newborn
Pharmacokinetics in the NICU-Case Studies

19th National Kaiser Permanente Pediatrics Conference. Wailea,
Maui. June 23-30, 2001.

Drug Therapy in the Neonate and Young Infant
Management of Pain and Sedation in the NICU
Pulmonary Hypertension: Management without NO

American Academy of Pediatrics NeoPrep Course. Boston, MA, 8/23-25/2001

Principles of Pharmacology in the Newborn. Parts 1, 2.

Case Discussions: Pharmacokinetics in the NICU

15th Annual Biologic Basis of Pediatric Practice Symposium: DNA, Drugs, and Pediatric Disease. Deer Valley, Utah. 9/14-16/2001.

A Drug Metabolism Refresher: from CYPs to SULTs and PXR to XREs.

Given by RM Ward for Michael Franklin who was delayed by 9/11 WTC.

Relationship of Genotypic Variation to Asthma Severity and Treatment

The Regulatory Updates and Practical Strategies to Conduct Pediatric Clinical Trials. Philadelphia, PA. September 20, 2001.

Supporting Pediatric Clinical Drug Studies by the American Academy of Pediatrics.

Neonatal Pharmacology-Clinical Update. Philadelphia, PA. 10/10-13/2001.

PreConference:

Pharmacologic Principles Applied to the Newborn-Absorption, Distribution, Metabolism and Excretion

Pharmacokinetic Case Discussions

Main Conference:

Pharmacologic Management of Pain and Sedation in the NICU

Pathophysiology of Pulmonary Hypertension and Treatment without NO

Treatment of Hypotension in the Critically Ill Newborn

National Association of Neonatal Nursing 17th Annual Conference. Salt Lake City, UT, October 4, 2001.

Pharmacologic Treatment of Hypotension.

American Academy of Pediatrics National Conference & Exhibition, San Francisco, CA, October 20-24, 2001.

Issues and Ethics Related to Drug Use and Research in Children with Rare Diseases.

Co-Presenter: Robert M. Nelson.

Ethical Issues in Drugs: Use and Research in Children.

Co-Presenters: G. Kevin Donovan, Robert O. Nelson.

The Regulatory Updates and Practical Strategies to Conduct Pediatric Clinical Trials. Philadelphia, PA. 12/6/2001.

Supporting Pediatric Clinical Drug Studies by the American Academy of Pediatrics.

2002

Issues in Neonatology Annual Conference, Garden City, NY. 3/21/2002.

Pharmacologic Management of Pain and Sedation in the NICU

Schneider Children's Hospital, New Hyde Park, NY. 3/20/2002.
Dose Response in the Pharmacologic Treatment of Hypotension
in Neonates.

Columbia Presbyterian Hospital, New York, NY. 3/22/2002.
Dose Response in the Pharmacologic Treatment of Hypotension
in Neonates.

AAP Workshop on Perinatal Practice Strategies: Your Practice.
Scottsdale, AZ. April 13, 2002.
Management of Pain in Neonates
Pharmacology of Specific Analgesics/Sedatives in Neonates

Pediatric Academic Societies' Annual Meeting. Baltimore, MD. May
7, 2002.
Relationship of Genotypic Variation to Asthma Severity and
Treatment.

Neonatal Pharmacology Preconference: San Francisco, CA. 6/22-26,
2002. Principles of Neonatal Pharmacology.
Pharmacologic Principles of Pharmacokinetics Applied to the
Newborn: Absorption, Distribution, Metabolism and
Excretion.
Case Discussions: Practical Applications of Principles in the
NICU

Neonatal Pharmacology. San Francisco, CA. 6/22-26, 2002.
Pathophysiology and Treatment of Pulmonary Hypertension:
Alternatives to Nitric Oxide.
Questions You Should Ask Before Using New Drugs in Neonates.
Pain Assessment and the Pharmacology of Analgesics and
Sedatives.

Strategies to Prevent the Morbidity and Mortality Associated with
Prematurity. Montreux, Switzerland. June 27-30, 2002.
Neonatal Complications Following Preterm Birth.

Reba Michels Hill Lectures-3rd Annual. Houston, TX.
Should We Study New Drugs in Children?
Baylor College of Medicine Department of Pediatrics
GrandRounds. 11/15/2002.
Children's Museum of Houston. 11/14/2002.
Medicine, Motherhood, and Babies. What's Safe to Take?

2003

6th Annual Update In Pediatric Cardiovascular Disease. Orlando, FL.
2/19-22/2003
Applicability of Pain Scales to the Cardiac Patient in the NICU.
Pharmacology of Analgesics in Neonates. Questions You Should Ask
Before Using a New Drug in a Newborn.
FDA Visiting Professor. Washington, DC. June 5, 2003.
What Clinicians Should Know Before Giving a New Medication to
a Neonate.

Neonatal Pharmacology-3rd Annual. Boston, MA 6/18-21/03.

Evaluation & Pharmacologic Management of Pain in the Neonate.
What You Should Know Before Using New Drugs in the NICU. Pharmacologic Management of Hypotension in the Critically Ill Neonate.
Principles of Pharmacology Applied to the Newborn. Parts 1, Part 2.
Case Discussions: Practical Application of Pharmacology in the NICU.
AAP District VIII Perinatal Meeting. Honolulu, HI. 6/26-28/03.
Pharmacology of Pain Management In the Neonate
Evaluation of Pain Management In the Neonate

AAP NeopREP, Intensive review course of neonatal/perinatal medicine.
Vancouver, BC. 9/7-13/03.
What Questions Should You Ask Before Giving a New Drug to a Newborn?
Pharmacology I: Absorption, Distribution, Metabolism, Excretion
Pharmacology II: Pharmacokinetics
Case Discussions: Pharmacokinetic Applications in the NICU

The Fetus & Newborn State of the Art Care. New Orleans, LA. 9/21-24/03.
What Questions You Should Ask Before Giving a New Drug to a Newborn.
Evaluation and Pharmacologic Management of Pain and Agitation: Is There a Downside to Treatment?
Can't Take the Pressure? Managing Hypotension in the Critically Ill Neonate

Stanley Porter Memorial Lecture, Eastern Virginia Medical School and Children's Hospital of The King's Daughters, Norfolk, VA. 11/6/03
The Case for Studying Drugs in Children
Questions You Should Ask Before Giving a New Drug to a Neonate

2004

NICHHD-AAP Workshop on Research in Neonatology. Bethesda, MD 1/15/04
Basic and Translational Research in Neonatal Pharmacology.

NICHHD/FDA Newborn Drug Development Initiative Workshop. Baltimore, MD 3/30/04
Drug Prioritization.

Neonatal Pharmacology-4th Annual. Chicago, IL 5/12-15/04.
What You Should Know Before Using New Drugs in the NICU.
Preconference:
Principles of Pharmacology Applied to the Newborn. Part 1, Part 2.
Case Discussions: Practical Application of Pharmacology in the NICU.

British Medical Association, Good Medicine for Children,
Prescribing Excellence Conference 2004. London, UK, 5/18/2004
What are the challenges in child medicines for the next 5 years?

18th Annual Biologic Basis of Pediatric Practice Symposium: Neonatal Medicine: Past Lessons, Current Realities, Future Promise. Deer Valley, UT 9/17-19/04. "Long Term Effects of Early Exposure to Substances of Abuse"

Pediatric Clinical Trials, Brussels, Belgium, December 1-2, 2004.
"What are the challenges in child medicines for the next 5 years?"

2005

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Improving Pediatric Therapeutics Through the Best Pharmaceuticals for Children Act of 2002, 5/16/05, Pediatric Academic Society, Washington, DC.
"Clinical Perspective"

Southeastern Association of Neonatology, Marco Island, FL, May 19-22, 2005.
"Lessons from Old Drugs About What You Should Know About New Drugs Before Treating Neonates"
"Evaluation and Pharmacological Management of Pain in the Newborn"
"Controversies in Neonatal Drug Therapy"

Florida Society of Neonatology, Marco Island, FL, 5/20/05
"Increasing the Study of Drugs for Newborns"

Neonatal Pharmacology-5th Annual. Seattle, WA 6/15-18/05.

Preconference:

"Principles of Pharmacology Applied to the Newborn. Part 1, Part 2"
"Case Discussions: Application of Pharmacokinetics in the NICU"

Main Conference:

"Controversies in Neonatal Pharmacologic Therapy: Use of Steroids and Erythromycin"
"Pharmacologic Support of Blood Pressure"

NICHD/AAP: Optimizing Care and Outcome of the Near-term Pregnancy and the Near-term Newborn Infant. Bethesda, MD. 7/18-19/05.
"Drug Disposition in the Near-Term Newborn"

AAP NeOPREP, Intensive review course of neonatal/perinatal medicine. San Diego, CA. 9/21-23/05.

"Pharmacology I: Absorption, Distribution, Metabolism, Excretion"
"Pharmacology II: Pharmacokinetics"
"Case Discussions: Pharmacokinetic Applications in the NICU"

Truth and Reflections in Pharmacokinetics. Visiting Scholar Program, Emory University Division of Neonatology, 9/28-29/2005, Atlanta, GA

"How Principles of Pharmacology Differ in the Newborn"
"Historical Lessons Regarding Use of New Drugs in the NICU"
"Controversies in Neonatal Drug Therapy: Erythromycin, Corticosteroids"
"Long Term Outcomes from Substance Abuse During Pregnancy"
"Using Principles of Pharmacokinetics in the NICU"
"Discussion of Pharmacokinetic Problems in the NICU"
"Population Pharmacokinetics - How it Works"
"So What's in a Label: Off Label Uses and Black Box Warnings"
"New Drugs Being Considered in Neonates"
"Evaluation and Management of Pain and Agitation in the Newborn"
"Pharmacologic Treatment of Hypotension"

Pediatric Clinical Trials. Dec 12-13, 2005 Baltimore, MD.
"History of FDA Regulations"

2006

Neonatal Pharmacology-6th Annual. Boston, MA 5/17-20, 2006.

Preconference:

"Drug Absorption, Distribution, Metabolism and Elimination in Neonates"
"Simplified Kinetics for the Neonatal ICU"
"Case Discussions: Applications of Pharmacokinetics in the NICU"

Main Conference:

"Pain Scores: What Do they Mean? What Should You Do?"
"Dilemmas in Neonatal Drug Therapy Including Steroids, Erythromycin, and Rifampin"

Institute of Medicine Forum on Drug Discovery, Development, and Translation: Addressing the Barriers to Development in Pediatrics. Washington, DC 6/13/2006.

"Dose-finding and Bioavailability Guessing"

Perinatal Dilemmas. Jackson, WY 7/30-8/2, 2006.

"Pulmonary Hypertension: Pharmacologic Options"
"Hot Topics in Neonatal Pharmacology: New Drugs and Continuing Dilemmas"
"Pharmacologic Management of Neonatal Blood Pressure"
"Intentional Fetal Drug Exposure: Maternal/Fetal Pharmacology Considerations When the Fetus is the Patient"
"Substance Abuse During Pregnancy: Long-Term Outcomes for the Newborn"

2007

Pediatric Grand Rounds, Primary Children's Medical Center, Salt Lake City, UT 01/04/2007.

"Pediatric Prescribing: On-Label, Off-Label, So What?"

European Center for Pharmaceutical Medicine Workshop: Incentivizing Better Medicines for Children, Basel, Switzerland, March 22, 2007

"Challenges of Paediatric Trials"

Drug Information Association 19th Annual EuroMeeting, Vienna, Austria, March 28, 2007.

"Lessons Learned from the PPRU"

Neonatal Pharmacology-7th Annual. La Jolla, CA 5/16-19, 2007.

Preconference:

"Pediatric Prescribing: On-label, Off-label, So What?"

Main Conference:

"Hot Topics in Neonatal Drug Therapy: 2007"
"Pain Therapy for the Newborn"
"Neonatal Hypotension and Hypoperfusion"

2008

Workshop on Perinatal Practice Strategies 2008: Fashioning the Future. Scottsdale, AZ 4/4-6, 2008

"Improving Pharmacologic Practice in the NICU"
"The Future of Drug Therapy"

Neonatal Pharmacology-8th Annual. Boston, MASS 6/17-21, 2008

"The Future of Pharmacology in the NICU: What's on the Horizon"
"Steroids for Newborns: Harmful or Helpful?"
"Neonatal Hypotension versus Hypoperfusion"

Pediatric Toxicology and Pharmacogenetics Symposium. Salt Lake City, UT
11/14/2008

"Pharmacokinetics Can Improve Pediatric Drug Therapy"

2009

Neonatal Pharmacology-9th Annual. Las Vegas, NV 3/25-28, 2009

"Hot Topics in Neonatal Pharmacology: Methadone, Ganciclovir"

26th Conference on High-Frequency Ventilation of Infants, Children, and
Adults. Snowbird, UT. 3/31/2009

"Neonatal Hypotension and Hypoperfusion"

9th National Neonatal Nurses Conference. Phoenix, AZ 9/13-16/2009

"Principles of Neonatal Pharmacology I, II"

"Applications of Pharmacokinetics in the NICU"

"Pharmacogenomics"

"Drug Levels: When to do Them and What to do with the Results"

New Mexico Society of Health Systems Pharmacists Balloon Fiesta Meeting.
Albuquerque, NM. 10/5/2009

"The Future of Pharmacology in Neonatology"

33rd Annual International Conference: Miami Neonatology 2009. Miami, FL
11/12-14, 2009

"Pharmacologic Treatment of Hypotension"

"Pharmacokinetics You Can Use at the Bedside"

"Erythromycin: The Good and the Bad to Guide Your Choice"

2010

30th annual Pediatrix Medical Directors' Meeting, Las Vegas, NV 4/20/2010

"Pharmacogenetics: A Look into the Future"

Neonatal Pharmacology-10th Annual. Orlando, FL 5/12-15/2010

"Treatment of Hypotension and Low Systemic Blood Flow"

"Pharmacogenetics: A Look into the Future"

Perinatal Dilemmas. Jackson Hole, WY 7/18-21/2010

"Substance Abuse During Pregnancy: Long-Term Outcomes May Not Be What
You Expect"

"How Pharmacokinetics in Very Low Birth Weight Infants Differ From
Newborns At Term"

"Ibuprofen vs. Indomethacin in the Newborn Similarities and
Differences"

"Perinatal Use of Erythromycin: Risks and Benefits for the Newborn"

DIA. Maternal and Pediatric Drug Safety Conference. Bethesda, MD 10/13-
14/2010

"Lessons Learned from Problematic Pediatric Trials"

2011

NEO Conference for 2011. Orlando, FL 2/24-27/2011.

"Pharmacogenetics"

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Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD), Workshop on Diagnostics and Therapeutics, Bethesda, MD. March 1, 2011

"Pediatric Therapy Needs"

University of Utah Department of Pharmacology/Toxicology Seminar. Salt Lake City, UT. 4/18/2011

"Genetics and the Effectiveness of Inhaled Glucocorticoids for Asthma: A Translational Study From Bench to Bedside"

2011 Pediatric Academic Societies & Asian Society for Pediatric Research Joint Meeting. Denver, CO. 5/1/2011 Topic Symposium session: Best Pharmaceutical for Children Act (BPCA) and Opportunities for CTSA Collaboration.

"Improving Management of the Neonatal Abstinence Syndrome"

AAP 2011 National Conference and Exhibition. Boston, MA 10/16, 17/2011. Karen Buchi MD and Robert Ward, MD

"Intrauterine Drug Exposure: What's a Pediatrician to Do?"

Academic Day for Neonatologists of Southern California. Los Angeles, CA 11/10/2011.

"Pharmacogenomics in the NICU"

Institute for Pediatric Innovation. Workshop on Opportunities and Challenges in Developing Drug Formulations for Neonatal Intensive Care. 12/7/2011, Children's National Medical Center, Washington, DC

"Defining the Unmet Need for Formulations in the NICU"

2012

6th Annual Advanced Respiratory Conference: Personalizing Respiratory Care - What Guides Our Design. Salt Lake City, UT, 1/13/2012

"Pharmacogenetics and personalized medicine for the newborn"

Neonatology 2012. Emory University. Atlanta, GA 3/29-30/2012

"Pharmacologic Management of Hypotension in the Neonate"

"Maternal Substance and the Neonate"

XV. NATIONAL MEETINGS - MODERATOR

1988 Society for Pediatric Research, Washington, D.C.
Developmental Pharmacology Sessions
Moderator - Abstract Presentations

1989 Society for Pediatric Research, Washington, D.C.
Perinatal Cocaine Abuse Poster Symposium
Co-Moderator with Ira Chasnoff, MD

1990 Society for Pediatric Research, Anaheim, CA
Developmental Pharmacology Sessions
Moderator - Abstract Presentations

1990 The 4th International Fetal Cardiology Symposium, Tokyo, Japan
Fetal Arrhythmia - Session 6

Co-chairperson - Abstract Presentations

- 1997 Public meeting on FDA's Proposed Regulation to Increase Pediatric Use Information for Drug and Biologics. Co-chair with William B. Schulz, Deputy Commissioner for Policy, FDA.
- 2000 Studying Oncology Drugs for Pediatric Use. AAP invitational meeting. Co-chairman. February 3-4, 2000. Washington, D.C.
- 2001 Society for Pediatric Research, Baltimore, MD, April 30, 2001 Developmental Pharmacology Session
Co-moderator - Abstract Presentations
- 2004 Society for Pediatric Research, San Francisco, CA May 3, 2004 Developmental Pharmacology Session
Co-moderator - Abstract Presentations
- 2004 Pediatric Clinical Trials, Brussels, Belgium, December 1-2, 2004. Meeting Chair December 1-2.
- 2005 Neonatal Pharmacology. June 15-18, 2005. Seattle, WA. Meeting moderator
- 2005 Pediatric Clinical Trials. December 12-13/2005. Baltimore, MD. Meeting moderator
- 2006 Society for Pediatric Research, San Francisco, CA, April 30, 2006. Co-Chair: Neonatal Medicine: Clinical Trials II.
- 2007 Western Society for Pediatric Research, Carmel, CA, Feb 3, 2007. Co-Chair with Ashima Madan: Neonatology-Developmental Biology.
- 2007 Neonatal Pharmacology. May 16-19, 2007. San Diego, CA. Meeting moderator
- 2008 Neonatal Pharmacology-8th Annual. Boston, MASS 6/17-21, 2008. Meeting Moderator
- 2009 Neonatal Pharmacology-9th Annual. Las Vegas, NV 3/25-28, 2009. Meeting Moderator
- 2010 DIA. Maternal and Pediatric Drug Safety Conference. Bethesda, MD 10/13-14/2010

XV. NATIONAL MEETING – PLANNER

Co-Planner for National Conference on Practical Neonatal Pharmacology; January, 1995; Steamboat Springs, Colorado.

Program Co-Chairman - 1995 American Academy of Pediatrics Annual Meeting. Drug Treatment of Chronic Pulmonary Disease during Infancy. Clinical Pharmacology and Pulmonary Sections of the American Academy of Pediatrics;

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San Francisco, CA.

Program Co-Chairman - 1996 American Academy of Pediatrics Annual Meeting. Reduction of Medication Errors; Boston, MA.

Planning Committee - 1998 AAP Pediatric Drug Development Workshop: Identifying the Barriers; Washington, D.C.

Program Chair - 2001, 15th Annual Biologic Basis in Pediatric Practice "DNA, Drugs, and Pediatric Disease". 9/14-16/2001. Deer Valley, UT

Conference Planner/Coordinator - 2001, Neonatal Pharmacology Clinical Update. 10/10-13/2001. Preconference-Principles of Neonatal Pharmacology 10/9; Philadelphia, PA.

Conference Planner/Coordinator - Neonatal Pharmacology. 6/24-26, 2002. Preconference-Principles of Neonatal Pharmacology 6/23; San Francisco, CA.

Conference Planner/Coordinator - Neonatal Pharmacology. 6/19-21, 2003. Preconference - Principles of Neonatal Pharmacology. 6/18/03. Boston, MA

Conference Planner/Coordinator - Neonatal Pharmacology. 5/13-15, 2004. Preconference - Principles of Neonatal Pharmacology. 5/12/2004. Chicago, IL

Conference Planner/Coordinator - Neonatal Pharmacology. 6/15-18, 2005. Preconference - Principles of Neonatal Pharmacology. 6/15/2005. Seattle, WA

Conference Co-Planner with (b) (6) MD, PhD and (b) (6) MD - Pediatric Clinical Trials. 12/12-13/2005. Baltimore, MD

Conference Planner/Coordinator - Neonatal Pharmacology. 5/18-20, 2006. Preconference - Principles of Neonatal Pharmacology. 5/17/2006. Boston, MA

Conference Planner/Consultant - Perinatal Dilemmas. 7/30-8/2, 2006. Jackson, WY.

Conference Planner - Neonatal Pharmacology-7th Annual. 5/17-19, 2007. Preconferences - Infectious Disease; Advanced Pharmacokinetics. 5/16/2007. La Jolla, CA

Conference Planner - Neonatal Pharmacology-8th Annual. 6/18-21, 2008. Preconference - Neonatal Nutrition; Main Conference. Boston, MA

Conference Planner: Pediatric Clinical Trials. 9/11-12, 2008. Philadelphia, PA. Canceled.

Conference Planner: Neonatal Pharmacology-9th Annual. 3/25-28, 2009. Las Vegas, NV

Conference Planner: Neonatal Pharmacology-10th Annual. 5/12-15/2010. Orlando, FL

Conference Steering Committee: DIA. Maternal and Pediatric Drug Safety Conference. 10/13-14/2010. Bethesda, MD

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Planning Committee for *Eunice Kennedy Shriver* National Institute of Child Health and Human Development (NICHD), Workshop on Diagnostics and Therapeutics, March 1-2, 2011; Bethesda, MD

Planning Committee for Institute of Pediatric Innovation. Workshop on Opportunities and Challenges in Developing Drug Formulations for Neonatal Intensive Care. December 7, 2011, Children's National Medical Center, Washington, DC