CURRICULUM VITAE
CHANIKA PHORNPHUTKUL, M.D.

BUSINESS ADDRESS

Division of Pediatric Endocrinology and Metabolism
Hasbro Children's Hospital
593 Eddy Street, MPS-2
Providence, RI 02903

BUSINESS TELEPHONE NUMBER: 401-444-5504

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EDUCATION

Undergraduate and Medical School
Chiangmai University School of Medicine
Chiangmai, Thailand — M.D. (High Honor), 1992

POSTGRADUATE TRAINING

Internship, Department of Pediatrics
Chiangmai University School of Medicine
Chiangmai, Thailand — April, 1992-July, 1993

Internship and Residency,
Department of Pediatrics, C.S. Mott Children's Hospital
University of Michigan,
Ann Arbor, MI — August, 1993- June 1995

Residency, Department of Pediatrics,
Hasbro Children's Hospital
Brown University,
Providence, RI — July 1995-June 1996

Fellow, Division of Pediatric Endocrinology and Metabolism,
Department of Pediatrics,
Hasbro Children's Hospital
Brown University,
Providence, RI — July 1996-June 1999

Fellow, Clinical Biochemical Genetics,
National Human Genome Research Institute,
National Institutes of Health,
Bethesda, MD — July 2000-September 2002

HONORS AND AWARDS

M.D. High Honor	March 1992
Fellow Travel Award, Society for Inherited Metabolic Disorders	March 2001
Visiting Professor Thai-American Physician Foundation	November 2006
Dean's teaching award, BIOL 3650 IMS II	June, 2008
Certificate of recognition, BIOL 3654 IMS II	June, 2009

PROFESSIONAL LICENSES AND BOARD CERTIFICATION

Medical License, State of Rhode Island	2000
Medical License, State of Maryland	2000-2002
American Board of Pediatrics	1996,2003
American Board of Pediatrics, Sub-Board of Pediatric Endocrinology	2001, 2008
American Board of Medical Genetics, Clinical Biochemical Genetics	2002

ACADEMIC APPOINTMENTS

Instructor in Pediatrics The Warren Alpert Medical School of Brown University Providence, RI	1999-2000
Assistant Professor of Pediatrics The Warren Alpert Medical School of Brown University Providence, RI	2002

HOSPITAL APPOINTMENTS

Pediatric Endocrinologist, Division of Pediatric Endocrinology and Metabolism Department of Pediatrics, Hasbro Children's Hospital Providence, RI	1999-2000
Biochemical Geneticist and Pediatric Endocrinologist, Director of Metabolic Clinic, Division of Pediatric Endocrinology and Metabolism Department of Pediatrics, Hasbro Children's Hospital Providence, RI	2002

JOURNAL PEER REVIEW

Journal of Biological Chemistry 2006
Journal of Pediatric Endocrinology and Metabolism 2006
Journal of Inherited Metabolic Disease 2005
Journal of Pediatrics 2006
Clinical Endocrinology 2007
Placenta 2007
Pediatric Research 2008
Journal of Nutrition 2008
American Journal of Physiology 2008
Biomacromelocules 2009
FASEB 2009
Journal of Endocrinology 2009

HOSPITAL COMMITTEES

Pediatric Performance Improvement Committee/Patient Safety Committee
2007-present

UNIVERSITY COMMITTEES

Search Committee, Genetic Faculty Position 2005-2006
Search Committee, Developmental Pediatrician Faculty Position 2006-2007
Review Committee for Summer Assistantship Program, Brown University 2008-2010
Search Committee, Division Chief, Human Genetics Division 2009

COMMITTEES-COMMUNITY

Newborn Screening Advisory Committee
RI Department of Health 2002-present

Genetics Advisory Committee
RI Department of Health 2002-present

Cystic Fibrosis Task Force, Department of Health
RI Department of Health 2005-2007

COMMITTEE- REGIONAL

Advisory Committee
New England Genetics Collaborative Advisory Council 2005-present

Advisory Committee
New England Consortium 2003-present

COMMITTEES-NATIONAL

Pediatric Academic Societies, Abstract Reviewer 2006
Society of Pediatric Research (SPR); Student research and house officer awards
Selection Committee 2009-2012

PROFESSIONAL MEMBERSHIPS

Endocrine Society	1997
Lawson Wilkins Pediatric Endocrine Society	2002
American Society of Human Genetics	2000
Society for Inherited Metabolic Disorders	2000
Society of Pediatric Research	2006
Orthopedics Research Society	2008

PUBLICATIONS

1. **Phornphutkul C**, Boney CM, Gruppuso PA Presentation of Addison's disease: Hypoglycemia unawareness in an adolescent with insulin-dependent diabetes mellitus. ***Journal of Pediatrics*** 1998; 132:882-884.
2. **Phornphutkul C**, Fausto-Sterling A, Gruppuso PA: Gender self-reassignment in an adolescent female pseudohermaphrodit.e ***Pediatrics***, 2000; 106:135-137.
3. **Phornphutkul C**, Frick GP, Goodman HM, Berry SA, Gruppuso PA: Hepatic Growth Hormone Signaling in the late gestation fetal rat. ***Endocrinology***, 2000; 141:3527-33.
4. **Phornphutkul C**, Okuba T, Harel Z, Tracy T, Gruppuso PA, Chen S, Goodwin G: Molecular study of a feminizing adrenal tumor in an adolescent girl. ***Journal of Clinical Endocrinology and Metabolism***, 2001; 86: 649-652.
5. Falik-Zaccai TC, Anikster Y, Rivera CE, Horne MK 3rd, Schliamser L, **Phornphutkul C**, Attias D, Hyman T, White JG, Gahl WA: A New Genetic Isolate of Gray Platelet Syndrome (GPS): Clinical, Cellular, and Hematologic Characteristics. ***Molecular Genetics and Metabolism***. 2001; 74: 303-13.
6. **Phornphutkul C,** Anikster Y, Huizing M, Braun P, Brodie C, Chou JY, Gahl WA: The promoter of a lysosomal membrane transporter gene, CTNS, binds Sp-1, shares sequences with the promoter of an adjacent gene, CARKL, and causes cystinosis if mutated in a critical region. ***American Journal of Human Genetics*.** 2001; 69: 712-21.
7. Introne WJ, **Phornphutkul C**, Bernardini I, McLaughlin K, Fitzpatrick D, Gahl W: Exacerbation of the ochronosis of alkaptonuria due to renal insufficiency and improvement after renal transplantation. ***Molecular Genetics and Metabolism***. 2002; 77:136.
8. **Phornphutkul C**, Introne WJ, Perry M, Bernardini I, Murphey M, Fitzpatrick D, Anderson P, Huizing M, Anikster Y, Gerber L, Gahl W: Natural history of alkaptonuria. ***New England Journal of Medicine***. 2002; 347: 2111-21.
9. Sagen JV, Raeder H, Hathout ., Shehadeh N, Gudmundsson K, Baevre H, Abulo D., **Phornphutkul C**, Molnes J, Bell GI, Gloyn AL, Hattersley AT, Molven A, Sovik O, Njolstad PR: Permanent Neonatal Diabetes due to Mutations in *KCNJ11* encoding Kir6.2: Patient Characteristics and Initial Response to Sulfonylurea Therapy. ***Diabetes*.** 2004; 53:2713-2718.
10. Kleta R, Bernardini I, Ueda M, **Phornphutkul C,** Krasnewich D, Gahl WA: Long-term follow-up of well treated nephropathic cystinosis patients. ***Journal of Pediatrics*.** 2004; 145(4):555-60.
11. **Phornphutkul C**., Wu KY, Chen Q, Gruppuso PA: IGF-I signaling is modified during chondrocyte differentiation. ***Journal of Endocrinology***. 2004; 183(3):477-86.

12. Suwannarat P, **Phornphutkul C**, Bernardini I, Turner M, Gahl WA: Minocycline-induced hyperpigmentation misdiagonosed as alkaptonuria in individuals with joint pain. ***Arthritis & Rheumatism***. 2004; 50(11):3698-701.
13. **Phornphutkul C**., Wu KY, Gruppuso PA: The Role of Insulin in Chondrogenesis. ***Molecular and Cellular Endocrinology***. 2006; 249(1-2):107-15.
14. **Phornphutkul, C,** Wu KY, Auyeung V, Chen Q, Gruppuso PA. The role of the mTOR nutrient signaling pathway in chondrocyte differentiation. ***Developmental Dynamics***. 2008; 237:702-12.
15. Sanders JA, Lakhani A, **Phornphutkul C,** Wu KY, Gruppuso PA. The effect of rapamycin on DNA synthesis in multiple tissues from late gestation fetal rats and postnatal rats. ***American Journal of Physiolology, Cell Physiology***. 2008 Aug;295(2):C406-13.
16. Philips B, **Phornphutkul C**, Laufgraben M. A Novel Mutation of the Succinate Dehydrogenase D Gene In A Patient With Recurrent Pheochromocytoma And Functional Paraganglioma. ***The Endocrinologist***. October 2008;18:99-101.
17. **Phornphutkul C,** Lee M, Voigt C, Wu K-Y, Ehrlich M, Grupposo PA, Chen Q. The effect of rapamycin on bone growth in rabbits. ***Journal of Orthopaedic Research***.2009 Sep;27(9): 1157-61.
18. Kim MS, Wu KY, Auyeung VA, Chen Q, Gruppuso PA**, Phornphutkul C.** Leucine restriction inhibits chondrocyte proliferation and differentiation through mechanisms both dependent and independent of mTORsignaling. ***American Journal of Physiology: Endocrine and Metabolism***, 2009 Jun;296(6):E1374-82 .
19. Woo D, **Phornphutkul C**, Laptook A. Early and Severe Indirect Hyperbilirubinemia as a Manifestation of Galactosemia,. ***Journal of Perinatology***, 2010 Apr;30(4):295-7.
20. Peipert J, Rohr F, Johnson D, **Phornphutkul C**, Waisbren, S. Changes in Metabolic Control of Phenylketonuria in Children Attending a Summer Camp: Pre- and Post-Assessment of a Nutritional Intervention. ***ICAN: Infant, Child, & Adolescent Nutrition Journal***. **In press** 2010.
21. Bourjelly G, Chalhoub M, Alleyne T, McNeilly B, **Phornphutkul C**, Woodfield C. Effect of a single exposure to iodinated contrast media in utero on neonatal thyroid function. ***Radiology.*** **In press** 2010.
22. Temu T, Wu KY, Gruppuso PA, **Phornphutkul C**. Ascorbic acids induced differentiation of ATDC5 cells. ***American Journal of Physiology.*** **In press** 2010

SUBMITTED ARTICLES

1. Cerezo C, Schaefer M, **Phornphutkul C**, Kurkchubasche A, Kawatu D, Leleiko N, Wallach N. Gastric Outlet obstruction in a child with Menkes Disease: a case report.
2. Woo HC, Lizarda A, Tucker R, Mitchell M, Vohr B, Oh W, **Phornphutkul** C. Congenital hypothyroidism with a delayed thyroid stimulating hormone (TSH) elevation in very low birth weight and extremely low birth weight infants: Incidence and growth and developmental outcome at 18 months corrected age.
3. Beck N, Sahai I, Lemke K, Caldovic L, **Phornphutkul C.** Early identification of N-acetylglutamate synthase (NAGS) deficiency identified by newborn screening due to two novel mutations.

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INVITED REVIEW

1. Suwannarat P, Introne WJ, **Phornphutkul C**: Alkaptonuria. 2003 Published on line at www.genetests.org

2. Phornphutkul C, Padbury JP: Recent update in newborn screening. March 2005 eNeonatal Review - Volume 2, Issue 7.

3. Phornphutkul C, Gruppuso PA. Disorders of the growth plate. ***Current Opinion in Endocrinology, Diabetes and Obesity*** 2009, Dec 16(6), 430-4.

4. Beck N, Johnston J, Lemke K, Pogacar P, Phornphutkul C. Rhode Island metabolic newborn screening. ***Medicine and Health Rhode Island***. 2010. **In press.**

ABTRACTS/ORAL PRESENTATIONS

1. Society of Pediatrics Research, New Orleans, LA, May 1999
Title: Gender Assignment at birth: Three cases of reassignment / ambiguity at or beyond adolescence.

2. Endocrine Society, New Orleans, LA, June 1998
Title: Ontogeny of Hepatic STAT signaling in the rat.

3. Society of Pediatrics Research, Boston, MA, May 2000.
Title: Aromatase Expression in a Feminizing Adrenal Adenoma.

4. Society of Pediatrics Research, Boston, MA, May 2000.
Title: Hepatic Growth Hormone Signaling in the late Gestation Fetal Rat

5. Society of Inherited Metabolic Disorders, Miami, FL, March 2001
Title: Characterization of Cystinosis Promoter. **Oral presentation**

6. American Society of Human Genetics, San Diego, CA, October 2001.
Title: The *CTNS* promoter and its mutation causing cystinosis.

7. Society of Pediatrics Research, Baltimore, MD 2002
Title: Mutation Analysis of the Human homogentisate 1,2 dioxydase gene in American-based alkaptonuria patients.

8. Society of Inherited Metabolic Disorders, Asilomar, CA, March 2002
Title: Mutation Analysis of the Human Homogentisate 1,2 dioxydase gene in American-based alkaptonuria patients.

9. Society of Inherited Metabolic Disorders, Asilomar, CA, March 2002.
Title: The Critical role of the Kidneys in Homogentisic acids oxidation.

10. American Society of Human Genetics, Baltimore, MD, October 2002.
Title: Clinical, Biochemical, Molecular and Therapeutic Findings in alkaptonuria. **Oral presentation**

11. American Society of Human Genetics, Los Angeles, CA, November 2003.
Title: Making diagnosis of alkaptonuria: Unusual skin findings in an alkaptonuria patient.

12. American Society of Human Genetics, Los Angeles, CA, November 2003.
Title: Long-term follow-up of well treated nephropathic cystinosis patients.

13. American College of Medical Genetics, Orlando, FL, March 2004
Title: Blood Phenylalanine Levels Pre and Post Residential Camp Experieince.

14. American College of Medical Genetics, Orlando, FL, March 2004
Title: Long-term follow-up of well treated nephropathic cystinosis patients.

15. Endocrine Society, New Orlean, LA, June 2004
Title: IGF-I signaling is modified during chondrocyte differentiation.

16. Endocrine Society, San Dieogo, CA, June 2005
Title: Role of insulin at physiological concentration in chondrocyte differentiation.

17. Endocrine Society, San Dieogo, CA, June 2005
Title: Nutrient deprivation and modulation of IGF-I signaling in developing chondrocytes.

18. International Workshop on the Growth Plate, Portland, OR, June 2006
Title; The effect of mTOR inhibition on in vitro and in vivo chondrocyte differentiation.

19. Endocrine Society, Boston, MA, June 2006
Title: Nutrient deprivation and ATDC5 differentiation.

20. Society of Pediatric Research, Toronto, CA, May 2007
Title: Nutrient Regulation of Chondrocyte Proliferation and Differentiation. **Oral presentation**

21. Endocrine Society, San Francisco, CA, June 2008
Title: The mammalian Target Of Rapamycin (mTOR) is essential to optimal longitudinal bone growth in rabbits.

22. Rhode Island Research Alliance, Providence, RI, June 2008
Title: Nutrient Regulation of Chondrocyte Proliferation and Differentiation. **Oral presentation**

23. 2Nd Biennial National IdeA Symposium of Biomedical Research Excellence (NISBRE), Washington D.C. 2008
Title: Nutrient Regulation of Chondrocyte Proliferation and Differentiation.

24. American Society of Human Genetics, Philadelphia, PA, October 2008
Title: The Need for Microarray Testing in Patients with Presumptive Diagnosis of Mitochondrial Disease.

25. Radiological Society of North America, Chicago, IL, November 2009
Title: Effect of iodinated contrast medium on neonatal thyroid function following in-utero exposure.

26. LWPES/ESPE 8th Joint Meeting, New York, NY September 2009
Title: Hypothyroidism with delayed thyroid-stimulating hormone (TSH) surge in very low birth weight (VLBW) infants: incidence and growth and developmental outcomes at 18 months corrected age.

27. LWPES/ESPE 8th Joint Meeting, New York, NY September 2009
Title: Successful transition from insulin to glyburide in 2 siblings with neonatal diabetes mellitus due to KCNJ11 gene mutation encoding Kir6.2.

28. LWPES/ESPE 8th Joint Meeting, New York, NY September 2009

Title: Effect of iodinated contrast medium on neonatal thyroid function following in-utero exposure.

29. Orthopedics Research Society New Orleans,LA March 2010
Tilte: Deficiency of tyrosine phosphatase SHP2 sensitizes mechanical stimulation of chondrogenesis through activation of mTOR.

30. American Society of Investigative Pathology Anaheim, CA April 2010
Title: Characterization of chondrocyte differentiation of ATDC5 cell line induced by Ascorbic acid.

31. Society of Pediatric Research, 2010
TItle: An unusual presentation of rickets - A case report.
Title: Growth hormone therapy in Kearns-Sayre syndrome: The KIGS experience.
Title: Hypothyroidism with delayed thyroid-stimulating hormone (TSH) surge in very low birth weight (VLBW) infants: incidence and growth and developmental outcomes at 18 months corrected age-1999-2006. Selected for **Oral Poster Symposium Presentation** on " Very Preterm Birth: Neurological, Cognitive & Behavioral Outcomes"

SUBMITTED ABSTRACTS

1. National Sociaety of Genetic Counselor, 2010
Title: A novel heterozygous deletion and insertion mutation in COL1A2 in a family with overlapping features of osteogenesis imperfecta and Ehlers-Danlos syndrome.

DEPARTMENT OF PEDIATRICS GRAND ROUNDS

Neonatal Diabetes	April, 4, 2003
Phenylketonuria: A Complex Single Gene Disorder	June, 27, 2003
Genetic Screening of Newborns and Healthy Children: Capabilities and Concern	March 19, 2004
Genetics of sexual development.	Dec 7, 2004
Case Presentation- 2 year old with hypoglycemia.	September, 2, 2005
Expanded Newborn Screening	June 9, 2006
2-year old with hypertrophic cardiomyopathy	July 20, 2007
Case presentation: 13 years old with short stature and diabetes	Oct 31, 2008
Noonan Syndrome: Clinical, Molecular and Therapeutic Intervention	Oct 23, 2009

INVITED PRESENTATIONS: Local

" Clinical, Biochemical and Molecular Findings of Alkaptonuria."
Grand Rounds, Division of Rheumatology, Department of Medicine,

Roger Williams Hospital
Providence, RI May 2, 2003

"Long Chain Acyl CoA Dehydrogenase Deficiency: Clinical Perspective and Outcome"
Multidisciplinary Antenatal Diagnosis and Management Conference
Women and Infants' Hospital
Providence, RI June 4, 2003

"Osteogenesis Imperfecta: Presentations, Prognosis and Management"
Perinatal Management Conference, Department of Pediatrics,
Women and Infants' Hospital
Providence, RI July 30, 2003

"A Term Infant with Respiratory Distress"
Perinatal Management Conference, Department of Pediatrics,
Women and Infants' Hospital
Providence, RI January, 21,2004

"Advances in Newborn Screening and Mass Spec".
Perinatal Management Conference, Department of Pediatrics,
Women and Infants' Hospital
Providence, RI January, 26 2004

"Impact of metabolic diseases on development"
Department of Special Education, Master program,
Rhode Island College, Providence,RI February 3, 2004

Physician breakout session at the New England Consortium of Metabolic Program,
Worcester, MA Nov 5, 2004

Presentations to RI Department of Health newborn screening and genetics advisory committee on expanded newborn screening. Nov 18 and Dec 7, 2004

Prenatal and perinatal clinical management of a patient with metabolic emergency

Perinatal Management conference

Women and Infants' Hospital
Providence, RI March 24, 2005

CPC: An infant with hepatomegaly and edema
Perinatal Management conference,
Women and Infants' Hospital,
Providence, RI November 16, 2005

Mitochondrial Myopathy,
Department of Medicine Grand Rounds,

Rhode Island Hospital
Providence, RI March 7, 2006

Expanded Newborn Screening
Perinatal Management conference,
Women and Infants' Hospital,
Providence, RI June 7, 2006

Expanded Newborn Screening,
Department of Pediatrics Grand Rounds,
Memorial Hospital
Pawtucket, RI June 9, 2006

Expanded Newborn Screening,
Department of Family Medicine Grand Rounds,
Memorial Hospital
Pawtucket, RI July 28, 2006

Hypoglycemia: clinical, biochemical and molecular aspect of Dax-1 mutation
Division of Endocrinology, Department of Medicine Grand Rounds,
Rhode Island Hospital
Providence, RI January 3, 2007

CPC: An infant with cardiomyopathy
Morbidity and mortality conference,
Women and Infants' Hospital,
Providence, RI January 23, 2007

Genetics in Endocrinology
Division of Endocrinology, Department of Medicine
Rhode Island Hospital,
Providence, RI November 21, 2007

Acute Fatty Live of Pregnancy and Fatty Acid Oxidation Defect
Multidisciplinary Antenatal Diagnosis and Management Conference
Women and Infants' Hospital
Providence, RI January 4, 2008

Nutritional Regulation of Chondrocyte Growth and Differentiation
Rhode Island Research Alliance Symposium
Rhode Island Convention Center
Providence, RI June 3, 2008

CPC: Infant with global hypotonia and dysmorphic features
Women and Infants' Hospital,
Providence, RI October 15, 2008

CPC: 60 years old female with hyperammonemia
Department of Medicine
Rhode Island Hospital

Providence, RI December 9, 2008

Menkes disease
Department of Neurology
Rhode Island Hospital
Providence, RI February 4, 2009

Mortality and Morbidity conference
CPC: Infant with hepatomegaly
Women and Infants' Hospital,
Providence, RI February 19, 2009

Nutritional Regulation of Chondrocyte Growth and Differentiation
Liver Research Center
Department of Medicine
Rhode Island Hospital
Providence, RI May 12, 2009

Case presentation: 13 years old with short stature and diabetes
Division of Endocrinology, Department of Medicine Grand Rounds
Rhode Island Hospital
Providence, RI October 7, 2009

INVITED PRESENTATIONS: National

Genetics for Pediatrician:
Chiangmai University School of Medicine,
Chiangmai, Thailand July 5-9, 2004

Alkaptonuria: Clinical, Biochemical and Molecular Findings"
Mount Sinai School of Medicine
New York, NY August 13, 2004

Roles of IGF-I/insulin in chondrocyte growth and differentiation:
Endocrine Grand Rounds, Children' Hospital & Medical Center,
Seattle, WA May 19, 2005

Genetics of Sexual Differentiation
Chiangmai University School of Medicine,
Chiangmai, Thailand July 12, 2005

Case Presentation- 2 year old with hypoglycemia.
Chiangmai University School of Medicine,
Chiangmai, Thailand June 28, 2006

Visiting Professor- Thamasat University School of Medicine
-Siriraj Hospital, Mahidol University
- Ramathibodi Hospital
Bangkok, Thailand July 1-5, 2007

The genetics basis, clinical implications and therapeutic consequences of neonatal diabetes.
Genetic Grand Rounds
Department of Human Genetics
Emory University
Atlanta, GA October, 22, 2007

Nutrient regulation and chondrogenesis
Research Seminar
NHGRI, NIH
Bethesda, MD October 27, 2008

Developmental and Behavioral Pediatric Board Review, DB: PREP- An intensive review of developmental-behavioral pediatrics
Atlanta, GA December 4, 2008

Hypothyroidism with delayed TSH surge in very low birth weight infants: incidence and growth and developmental outcomes at 18 months corrected age
Clinical conference Coverage
LWPES/ESPE 8th joint meeting
New York, New York September 10, 2009

Hypothyroidism with delayed TSH surge in very low birth weight infants: incidence and growth and developmental outcomes at 18 months corrected age
NERGG meeting
Portsmouth, NH December 4, 2009

Genetics of Skeletal Dysplasia
Pediatric Endocrinology Nursing Society
Atlanta, GA April 9, 2010

GRANTS

Previous Funding

Modulation of IGF-I Signaling in Developing Chondrocytes
Center for Cancer Research Development (5P20RR017695).
Principal Investigator: Doug Hixson, PhD.
Pilot Project: Chanika Phornphutkul, M.D.
Agency: NIH
Total Direct Cost: $10,000/year
Project Period: 01/01/03-12/31/04

Chondrogenesis and Long Bone Growth
Principal Investigator: Chanika Phornphutkul, M.D.

Agency: Charles H. Hood Foundation
Total Direct Cost: $75,000/year
Project Period: 01/01/05-12/31/06

Myozyme in Pompe's patient
Multicenter Trial
Site Principal Investigator: Chanika Phornphutkul, M.D.
Agency: Genzyme
Project Period: 08/01/2005-09/30/2006

Chondrogenesis and Long Bone Growth
Principal Investigator: Chanika Phornphutkul, M.D.
Agency: Department of Pediatrics
Total Direct Cost: $27,000/year
Project Period: 01/01/2007-09/30/07

Chondrogenesis and Long Bone Growth
Principal Investigator: Chanika Phornphutkul, M.D.
Agency: Department of Pediatrics
Total Direct Cost: $8,000/year
Project Period: 10/01/2007-09/30/08

Chondrogenesis and Long Bone Growth
Principal Investigator: Chanika Phornphutkul, M.D.
Agency: Department of Pediatrics
Total Direct Cost: $20,000/year
Project Period: 10/01/2008-09/30/09

Current Funding

Nutritional Regulation of Chondrocyte
Center of Biomedical Research Excellence for Skeletal Health and Repair (*COBRE*)
Grant number; 1 P20RR024484-01
Principal Investigator: Qian Chen, PhD.
Project 2 Investigator: Chanika Phornphutkul, M.D.
This project investigates the effect of nutrient on chondrogenesis.
Agency: National Center for Research Resources, NIH
Total Direct Cost: $150,000/year
Project Period: 07/01/2007-06/30/2012

Chondrogenesis and Long Bone Growth
Principal Investigator: Chanika Phornphutkul, M.D.
Agency: Department of Pediatrics
Total Direct Cost: $20,000/year
Project Period: 02/01/2010-01/31/2011

Thyroid Dysfunction: Long Term Follow-up of Very Low Birth Weight and Extremely Low Birth Weight Infants
Agency: New England Genetics Collaborative

Total Direct Cost: $27,826
Project Period: 09/01/08-05/31/10

PKUDOS- PKU Demographics, Outcome and Safety Registry
Agency: Biomarin Pharmaceutical, Inc.
Total Direct Cost: $8,000/ patient/year
Project Period: 12/01/08-

Lysosomal Storage Disease Registry
Agency : Genzyme
Principal Investigator: Chanika Phornphutkul
Total Direct Cost: per patient.

Newborn Screening Quality Assurance Research Project (CMTT#4046-09): A Quality Assurance Project to Assess Provision of Clinical Genetic Services to Newborns Identified through the Rhode Island Newborn Screening Program

Principle Investigator: Chanika Phornphutkul
Direct Cost: $3,575

Newborn Screening Long Term Follow up Project
Principle Investigator: Chanika Phornphutkul
Direct Cost: $4,440

OTHER RESEARCH PROJECTS

The Effect of Rapamycin on the Function of Growth Plates in Rabbits.- **co-PI**

Neurodevelopmental and Growth outcomes of Early, Aggressive Protein Intake in Very Low Birthweight Infants**. co-PI**

Investigations of defects in the GH-IGF-I axis in children with severe growth failure (CMTT#0194-08)- **site PI**

PREVIOUS CLINICAL RESEACH EXPERIENCE

1. Clinical Protocol (Associate Investigator) - " Clinical, Biochemical and Molecular Investigations into Alkaptonuria", NIH protocol 00-CH-141
2. Clinical Protocol (Associate Investigator) - "Therapeutic Use of NTBC in Alkaptonuira", NIH protocol 97-CH-0201

UNIVERSITY TEACHING ROLES

Biomed #130, Biochemistry, The Warren Alpert Medical School of Brown University (small group leader) 2002-2003, 8 small group sessions, 16 hours.

BIOL 3650 IMS II: Endocrine Science. The Warren Alpert Medical School of Brown University (lecture and small group leader) 2006, 1 hour lecture, 8 small group sessions, 16 hours.

BIOL 3654 IMS II: Endocrine Science. The Warren Alpert Medical School of Brown University (lecture and small group leader) 2007-present, 1 hour lecture, 8 small group sessions, 16 hours.

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Graduate program in pathobiology, committee member: Tecla Temu MD/PhD student. August 2009-present.

Graduate program in pathobiology, committee member: Chat Jayasuriya PhD candidate. February 2010-present

HOSPITAL TEACHING ROLES

General Ward Pediatric Teaching Attending, one month/year	2002
Department of Pediatric Noon Lecture Series, ~3/year	2002
Newborn Screening Lectures, 6/year	2004
Research mentor for pediatric endocrine fellows	
Valerie Auyeung	2003-2006
Mimi Kim	2005-2007
Pediatric longitudinal preceptor	
Joycelynn Burke	2008
Tan Koon Ghee	2010
Member of pediatric fellow scientific committee oversight	
Katarinia Gambosau	2007-2009
David Woo	2007-2009
Maya Balakrishnan	2008-2011
Mia Pingul	2008-2011
Otilia Neacsu	2008-2011