

# Stanford

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## Philip Sunshine

Professor of Pediatrics at the Lucile Salter Packard Children's Hospital, Emeritus  
Pediatrics - Neonatal and Developmental Medicine

### CLINICAL OFFICES

- **Intermediate Intensive Care Nursery**

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### Bio

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### CLINICAL FOCUS

- Neonatal-Perinatal Medicine
- Neonatology

### ACADEMIC APPOINTMENTS

- Professor Emeritus-Hourly, Pediatrics - Neonatal and Developmental Medicine
- Member, Maternal & Child Health Research Institute (MCHRI)

### HONORS AND AWARDS

- Virginia Apgar Award, American Academy of Pediatrics (2001)
- Ross Award in Research, Western Society of Pediatric Research (1970)
- Joseph W. St. Geme, Jr Education Award, Western Society of Pediatric Research (1997)
- Awardee of the Year, California Perinatal Association (1988)

### PROFESSIONAL EDUCATION

- Fellowship: Stanford University School of Medicine Registrar (1963) CA
- Residency: Stanford University School of Medicine Registrar (1961) CA
- Residency: Stanford University School of Medicine Registrar (1957) CA
- Board Certification: Neonatal-Perinatal Medicine, American Board of Pediatrics (1975)
- Board Certification: Pediatrics, American Board of Pediatrics (1963)
- Internship: Sinai Hosp (1956)
- Medical Education: University of Colorado Health Science Center (1955) CO

## Research & Scholarship

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### CURRENT RESEARCH AND SCHOLARLY INTERESTS

My primary interests are in the area of neonatal nutrition and developmental gastroenterology. The use of parenteral nutrition in very low birth weight infants, and the introduction of early enteral feeding to stimulate gastrointestinal maturation are my specific areas of investigative endeavors.

### Publications

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#### PUBLICATIONS

- **Hypoxic-ischemic encephalopathy: pathophysiology and implications for therapy.** *Przegląd Lekarski*  
Sunshine, P.  
2002; 59: 6-9
- **L. Joseph Butterfield, MD: a man for all seasons.** *Journal of perinatology*  
Sunshine, P.  
1999; 19 (3): 176-178
- **Supplemental oxygen may decrease progression of prethreshold disease to threshold retinopathy of prematurity.** *Journal of perinatology*  
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1997; 17 (6): 434-438
- **Neonatal gastroenterology - Foreword** *CLINICS IN PERINATOLOGY*  
Sunshine, P.  
1996; 23 (2): R9-R10
- **Supplemental oxygen and light for prethreshold retinopathy of prematurity** *International Conference on Retinopathy of Prematurity*  
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- **EFFECTS OF MICROWAVE-RADIATION ON ANTIINFECTIVE FACTORS IN HUMAN-MILK** *PEDIATRICS*  
Quan, R., Yang, C., Rubinstein, S., LEWISTON, N. J., Sunshine, P., Stevenson, D. K., Kerner, J. A.  
1992; 89 (4): 667-669
- **MECHANISM OF MATURATIONAL DECLINE OF RAT INTESTINAL LACTASE PHLORIZIN HYDROLASE** *BIOCHEMICAL JOURNAL*  
TSUBOI, K. K., Kwong, L. K., Sunshine, P., Castillo, R. O.  
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- **DIETARY CHO AND STIMULATION OF CARBOHYDRASES ALONG VILLUS COLUMN OF FASTED RAT JEJUNUM** *AMERICAN JOURNAL OF PHYSIOLOGY*  
Morrill, J. S., Kwong, L. K., Sunshine, P., Briggs, G. M., Castillo, R. O., TSUBOI, K. K.  
1989; 256 (1): G158-G165
- **MATURATIONAL PATTERNS OF CARBOHYDRASES IN THE ILEAL REMNANT OF RATS AFTER JEJUNECTOMY AT INFANCY** *AMERICAN JOURNAL OF CLINICAL NUTRITION*  
Hartman, G. E., Castillo, R. O., Kwong, L. K., Sunshine, P., TSUBOI, K. K.  
1988; 47 (5): 868-874
- **High serum vitamin E levels in premature infants receiving MVI-Pediatric.** *Journal of pediatric & perinatal nutrition*  
Kerner, J. A., Poole, R. L., Sunshine, P., Stevenson, D. K.  
1987; 1 (1): 75-82
- **CLINICAL USES, COLLECTION, AND BANKING OF HUMAN-MILK** *CLINICS IN PERINATOLOGY*  
ASQUITH, M. T., PEDROTTI, P. W., Stevenson, D. K., Sunshine, P.  
1987; 14 (1): 173-185
- **GROWTH AND DIFFERENTIATIVE MATURATION OF THE RAT ENTEROCYTE** *JOURNAL OF PEDIATRIC GASTROENTEROLOGY AND NUTRITION*

- DHARLINGUE, A. E., Kwong, L. K., Morrill, J. S., Sunshine, P., TSUBOI, K. K.  
1986; 5 (6): 956-963
- **EFFECTS OF HYDROCORTISONE ON CARBOHYDRASE CONCENTRATIONS, DENOVO SYNTHESIS AND TURNOVER PATTERNS IN IMMATURE RAT INTESTINE** *CELL BIOCHEMISTRY AND FUNCTION*  
TSUBOI, K. K., Kwong, L. K., Fan, Q., Thompson, D. J., DHARLINGUE, A. E., Sunshine, P.  
1986; 4 (2): 131-142
  - **USE OF SODIUM-NITROPRUSSIDE IN NEONATES - EFFICACY AND SAFETY** *JOURNAL OF PEDIATRICS*  
Benitz, W. E., MALACHOWSKI, N., Cohen, R. S., Stevenson, D. K., Ariagno, R. L., Sunshine, P.  
1985; 106 (1): 102-110
  - **NATURE OF ELEVATED RAT INTESTINAL CARBOHYDRASE ACTIVITIES AFTER HIGH-CARBOHYDRATE DIET FEEDING** *AMERICAN JOURNAL OF PHYSIOLOGY*  
TSUBOI, K. K., Kwong, L. K., Yamada, K., Sunshine, P., KOLDOVSKY, O.  
1985; 249 (4): G510-G518
  - **THE NATURE OF MATURATIONAL DECLINE OF INTESTINAL LACTASE ACTIVITY** *BIOCHIMICA ET BIOPHYSICA ACTA*  
TSUBOI, K. K., Kwong, L. K., DHARLINGUE, A. E., Stevenson, D. K., Kerner, J. A., Sunshine, P.  
1985; 840 (1): 69-78
  - **THE BACTERIAL CONTENT OF BREAST-MILK AFTER THE EARLY INITIATION OF EXPRESSION USING A STANDARD TECHNIQUE** *JOURNAL OF PEDIATRIC GASTROENTEROLOGY AND NUTRITION*  
ASQUITH, M. T., PEDROTTI, P. W., HARROD, J. R., Stevenson, D. K., Sunshine, P.  
1984; 3 (1): 104-107
  - **PREDICTING SURVIVAL AMONG VENTILATOR-DEPENDENT VERY LOW-BIRTH-WEIGHT INFANTS** *CRITICAL CARE MEDICINE*  
KIMBLE, K. J., Ariagno, R. L., Stevenson, D. K., Sunshine, P.  
1983; 11 (3): 182-185
  - **FAVORABLE RESULTS OF NEONATAL INTENSIVE-CARE FOR VERY LOW-BIRTH-WEIGHT INFANTS** *PEDIATRICS*  
Cohen, R. S., Stevenson, D. K., MALACHOWSKI, N., Ariagno, R. L., KIMBLE, K. J., Hopper, A. O., Johnson, J. D., UELAND, K., Sunshine, P.  
1982; 69 (5): 621-625
  - **EVIDENCE FOR THE POSSIBLE RELATIONSHIP OF NEONATAL SKINFOLD THICKNESS TO MATERNAL GLUCOSE-METABOLISM DURING THE 3RD TRIMESTER** *JOURNAL OF PEDIATRIC GASTROENTEROLOGY AND NUTRITION*  
Kerner, J. A., Stevenson, D. K., HATTNER, J. A., Cohen, R. S., Schwartz, H. C., Sunshine, P.  
1982; 1 (1): 59-62
  - **REACTIONS OF WOMEN TO INTRAPARTUM FETAL MONITORING** *OBSTETRICS AND GYNECOLOGY*  
Molfese, V., Sunshine, P., Bennett, A.  
1982; 59 (6): 705-709
  - **LONGITUDINAL GROWTH AND LATE MORBIDITY OF SURVIVORS OF GASTROSCHISIS AND OMPHALOCELE** *JOURNAL OF PEDIATRIC GASTROENTEROLOGY AND NUTRITION*  
Berse, C. L., MALACHOWSKI, N., COHN, R. B., Sunshine, P.  
1982; 1 (3): 375-379
  - **A PROPOSED MECHANISM OF NORMAL INTESTINAL LACTASE DECLINE IN THE POST-WEANED MAMMAL** *BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS*  
TSUBOI, K. K., Kwong, L. K., Neu, J., Sunshine, P.  
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  - **A DOUBLE-BLIND-STUDY OF THE EFFECTS OF ORAL INDOMETHACIN IN PRETERM INFANTS WITH PATENT DUCTUS-ARTERIOSUS WHO FAILED MEDICAL-MANAGEMENT** *PEDIATRIC PHARMACOLOGY*  
Neu, J., Ariagno, R. L., Johnson, J. D., Pitlick, P. T., Cohen, R. S., BEETS, C. L., Sunshine, P.  
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  - **EFFECTS OF ASPHYXIA AND ORAL GENTAMICIN ON INTESTINAL LACTASE IN THE SUCKLING RAT** *PEDIATRIC PHARMACOLOGY*  
Neu, J., Masi, M., Stevenson, D. K., Kwong, L. K., Hurwitz, R., Sunshine, P.  
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- **DELAYED ONTOGENIC DEVELOPMENT IN THE BYPASSED ILEUM OF THE INFANT RAT** *GASTROENTEROLOGY*  
TSUBOI, K. K., Kwong, L. K., Ford, W. D., COLBY, T., Sunshine, P.  
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- **NEW TRANSFUSION PROGRAM FOR AN INTENSIVE-CARE NURSERY** *JOURNAL OF PEDIATRICS*  
Johnson, J. D., MALACHOWSKI, N. C., Sunshine, P., HAFLEIGH, E. B., GRUMET, F. C.  
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- **LATE MORBIDITY AMONG SURVIVORS OF NECROTIZING ENTEROCOLITIS** *PEDIATRICS*  
Stevenson, D. K., Kerner, J. A., MALACHOWSKI, N., Sunshine, P.  
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- **SUGAR HYDROLASES OF THE INFANT RAT INTESTINE AND THEIR ARRANGEMENT ON THE BRUSH-BORDER MEMBRANE** *BIOCHIMICA ET BIOPHYSICA ACTA*  
TSUBOI, K. K., Schwartz, S. M., BURRILL, P. H., Kwong, L. K., Sunshine, P.  
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- **REFRACTORY HYPOXEMIA ASSOCIATED WITH NEONATAL PULMONARY-DISEASE - USE AND LIMITATIONS OF TOLAZOLINE** *JOURNAL OF PEDIATRICS*  
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- **PARENTERAL-ALIMENTATION** *SEMINARS IN PERINATOLOGY*  
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- **SUGAR HYDROLASES AND THEIR ARRANGEMENT ON THE RAT INTESTINAL MICROVILLUS MEMBRANE** *JOURNAL OF MEMBRANE BIOLOGY*  
TSUBOI, K. K., Kwong, L. K., BURRILL, P. H., Sunshine, P.  
1979; 50 (2): 101-122
- **LACTOSE-MALABSORPTION AMONG ADULT INDIANS OF GREAT BASIN AND AMERICAN SOUTHWEST** *AMERICAN JOURNAL OF CLINICAL NUTRITION*  
Johnson, J. D., Simoons, F. J., Hurwitz, R., Grange, A., Sinatra, F. R., Sunshine, P., ROBERTSON, W. V., Bennett, P. H., KRETCHMER, N.  
1978; 31 (3): 381-387
- **ALTERATIONS OF LYMPHOCYTES AND OF ANTIBODY CONTENT OF HUMAN MILK AFTER PROCESSING** *JOURNAL OF PEDIATRICS*  
Liebhaber, M., LEWISTON, N. J., ASQUITH, M. T., OLDSARROYO, L., Sunshine, P.  
1977; 91 (6): 897-900
- **INTRACTABLE DIARRHEA OF INFANCY** *CLINICS IN GASTROENTEROLOGY*  
Sunshine, P., Sinatra, F. R., Mitchell, C. H.  
1977; 6 (2): 445-461
- **LACTOSE-MALABSORPTION AMONG PIMA INDIANS OF ARIZONA** *GASTROENTEROLOGY*  
Johnson, J. D., Simoons, F. J., Hurwitz, R., Grange, A., Mitchell, C. H., Sinatra, F. R., Sunshine, P., ROBERTSON, W. V., Bennett, P. H., KRETCHMER, N.  
1977; 73 (6): 1299-1304
- **CHOLESTYRAMINE TREATMENT OF PSEUDOMEMBRANOUS COLITIS** *JOURNAL OF PEDIATRICS*  
Sinatra, F., Buntain, W. L., Mitchell, C. H., Sunshine, P.  
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- **EVALUATION OF A WALKING-DONOR BLOOD-TRANSFUSION PROGRAM IN AN INTENSIVE-CARE NURSERY** *JOURNAL OF PEDIATRICS*  
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- **NEONATAL HYPOXIA AND PULMONARY VASOSPASM - RESPONSE TO TOLAZOLINE** *JOURNAL OF PEDIATRICS*  
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- **SEQUENTIAL STUDY OF VARIOUS MODES OF SKIN AND UMBILICAL CARE AND INCIDENCE OF STAPHYLOCOCCAL COLONIZATION AND INFECTION IN NEONATE** *PEDIATRICS*  
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- **HIATAL HERNIA IN INFANTS AND YOUNG CHILDREN - 2-YEAR TO 3-YEAR FOLLOW-UP STUDY** *JOURNAL OF PEDIATRICS*  
Friedland, G. W., Sunshine, P., ZBORALSKE, F. F.  
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- **METABOLIC AND GENETIC STUDIES OF A FAMILY WITH ORNITHINE TRANSCARBAMYLASE DEFICIENCY** *PEDIATRIC RESEARCH*  
GOLDSTEI, A. S., HOOGENRA, N. J., Johnson, J. D., Fukanaga, K., SWIERCZE, E., Cann, H. M., Sunshine, P.  
1974; 8 (1): 5-12
- **PERINATAL ASPIRATION SYNDROME - ASSOCIATION WITH INTRAPARTUM EVENTS AND ANESTHESIA** *AMERICAN JOURNAL OF OBSTETRICS AND GYNECOLOGY*  
LEAKE, R. D., Gunther, R., Sunshine, P.  
1974; 118 (2): 271-275
- **PROGNOSIS OF CHILDREN SURVIVING WITH AID OF MECHANICAL VENTILATION IN NEWBORN PERIOD** *JOURNAL OF PEDIATRICS*  
Johnson, J. D., MALACHOW, N. C., GROBSTEI, R., Welsh, D., DAILY, W. J., Sunshine, P.  
1974; 84 (2): 272-276
- **APPARENT DISPARITY IN INCIDENCE OF HIATAL HERNIAE IN INFANTS AND CHILDREN IN BRITAIN AND UNITED-STATES** *AMERICAN JOURNAL OF ROENTGENOLOGY*  
FRIEDLAN, G. W., Dodds, W. J., Sunshine, P., ZBORALSK, F. F.  
1974; 120 (2): 305-314
- **EFFECT OF PROLONGED NURSING ON ACTIVITY OF INTESTINAL LACTASE IN RATS** *GASTROENTEROLOGY*  
LEBENTHA, E., Sunshine, P., KRETCHME, N.  
1973; 64 (6): 1136-1141