



NeonatalNews.Netsm

From the Section of Neonatology, Department of Pediatrics, Baylor College of Medicine, Houston, Texas

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Fellow Spotlight



photo by Paul Vincent Kuntz, Texas Children's Hospital

Doctors Camellia Fituch and William Clark were co-recipients of the 2002 Arnold J. Rudolph Fellows Award. The two third-year fellows in the Neonatal-Perinatal Medicine Fellowship Program at Baylor College of Medicine were both thought to have reflected the attributes of Dr. Rudolph (1918-1995), in memory of whom the award is conferred at an annual lectureship in his name:

- an effective and understanding teacher to all levels of students,
- a physician who is deeply respectful toward all patients, parents, colleagues, nurses, students, and self, and
- an individual of the utmost integrity.



William Clark, MD, is a native Texan who graduated from Texas Wesleyan University in Fort Worth. He received his medical degree from the AUC School of Medicine in Montserrat, British West Indies, and studied medicine for one year at the Princess Royal Hospital in London, England, before entering a categorical residency in pediatrics at St. John Hospital in Detroit, Michigan.

During his fellowship at Baylor, Dr. Clark pursued research projects focused on aspects of lung development, particularly inflammatory

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The Front Line

Fetal surgery: applications to increase survival rates

by Darrell L. Cass, MD

As a result of advances in prenatal ultrasound and ultrafast MRI, many congenital structural anomalies (including abdominal wall defects such as omphalocele and gastroschisis, diaphragmatic hernia, fetal lung lesions, and myelomeningocele) are now diagnosed before birth. In most instances these conditions are best evaluated and treated after delivery at term.



Darrell L. Cass, MD
Assistant Professor of
Surgery and Pediatrics

However, in rare circumstances these malformations must be treated before birth if the fetus is to have any hope of survival.

Fetal surgery involves the application of well-established surgical techniques (open, percutaneous or endoscopic) to treat the developing fetus while the fetus remains *in utero*. Highly specialized surgical, anesthetic and tocolytic approaches have been developed to open the uterus safely with minimum blood loss and to treat associated preterm labor. Presently, fetal surgery is only appropriate for a limited number of life-threatening fetal surgical conditions that include a lung mass with hydrops, a neck mass with tracheal compression or hydrops, and sacrococcygeal teratoma with hydrops. Stud-

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Breaking news

Ronald McDonald House Family Rooms Open

by Margaret Jones, RN, PhD candidate

The opening of the Ronald McDonald House Family Rooms September 30th marked the newest family centered care initiative for the Newborn Center at Texas Children's Hospital. This area is provided through the partnership of Texas Children's and the Ronald McDonald House of Houston. It is staffed with Ronald McDonald House staff and volunteers 12 hours a day. The staff works closely with the hospital to provide a home away from home for families in need. The family room offers a cozy living/dining area, kitchen, consultation area (quiet room), laundry, library, computer access, and 20 sleep rooms with private baths. The area has been decorated in a home-style motif, which includes the handiwork of a local artist to compliment the decor. Families can walk from the living room right out to the Fish & Boots Garden for a breath of fresh air and to enjoy the

see McDonald, page 2

Research Highlights

Grants / Funding

Anderson, D. Neonatal nutrition training; U.S. Department of Health & Human Services/Health Resources Administration/Maternal & Child Health Bureau, \$102,804.

Fernandes, C. Genetic modulation of glutathione synthesis in protection from oxidant injury; American Heart Association, Texas affiliate, \$124,000.

Griffin, I. The effect of beef and heme iron on zinc absorption in children; NIH-CRISP Award, \$58,108.

Karpen, H. Regulation of hedgehog receptor (K08); NIH, \$629,278.

Events

Steven Abrams, MD, appointed to the Institute of Medicine's (Food and Nutrition Board) Use of Dietary Reference Intakes in Nutrition Labeling Committee for 2002–03; appointed to International Advisory Board to the Swiss Government on Osteoporosis Prevention (Champ Program).

James M. Adams, MD, invited speaker at University of Texas School of Nursing in August. Topic: *Management of bronchopulmonary dysplasia.*

Diane Anderson, PhD

- appointed Director of Neonatal Nutrition Service for the Section of Neonatology, Baylor College of Medicine.
- appointed Clinical Professor Associate in the Nutrition and Food Sciences Department of Texas Woman's University, Houston.

Gerardo Cabrera-Meza, MD, invited speaker at First Reunion of Ex-residents of the Private Children's Hospital of Mexico City held in Huatulco, Oaxaca, Mexico in July. Topic: *Neonatal musical diagnosis.*

Joseph H. Schneider, MD

- elected to Steering Committee on Clinical Information Technology of the American Academy of Pediatrics,
- selected to Co-chair the Committee on Communications and Technology for the Texas Pediatric Society,
- elected to State of Texas Medicaid Medical Advisory Committee to represent the Texas Pediatric Society.

Editor's Corner:

Advances in patient care

Change is progress. That is especially true of change which enhances the care that we can give to our patients or which involves our patients' families more in the care of their babies. Sometimes change occurs in an exponential manner; more often it is the culmination of a succession of small steps.

This issue of *NeoNatalNews.Net* includes two articles that address changes that can improve the care we offer to our babies. One change is a result of a progression of small steps; the other has the potential for significant modification in the way we deliver surgical care.

The first describes the enhancement of an ongoing project — The Ronald MacDonald House. By bringing the House inside Texas Children's Hospital and close to the NICU and other nursery units, our parents' anxieties can be lessened through their increased involvement in the care of their babies. The second illustrates possible future advances that some day we might take for granted — fetal surgery. If congenital malformations can be successfully repaired while the fetus is *in utero*, the burden of disease for that baby after birth will be lessened enormously. **Progress is good.**



Michael E. Speer, MD
Professor of Pediatrics

McDonald (continued from page 1)

unique "backyard." The sleeping area provides families over-night accommodations as well as an area to take a nap during the day. The success of this endeavor is due to the involvement of several families who had infants in the Newborn Center. The Ronald McDonald House Family Rooms provide a unique opportunity for families to get away from the stress of the hospital environment. Since the area opened, the sleep rooms have been filled and feedback from families that use the area is very positive.

Surgery (continued from page 1)

ies are evaluating the benefit of fetal surgical interventions for severe congenital diaphragmatic hernia, myelomeningocele, and twin-twin transfusion syndrome.

Within the last 10 months the Baylor College of Medicine Pediatric Surgical Program at Texas Children's Hospital, in collaboration with St. Luke's Episcopal Hospital, has successfully applied fetal surgical techniques to manage severe tracheal compression from large cervical tumors. In each case, an EXIT procedure (Ex-utero, Intrapartum Treatment) was accomplished. Under deep general anesthesia to relax the uterus and preserve placental blood flow, the uterus was opened. The fetal head was delivered, and fetal laryngoscopy and bronchoscopy was performed to permit endotracheal intubation and control of the airway before separating the baby from placental circulation.

We are currently preparing to establish a Fetal Surgery Program at Baylor College of Medicine. We expect that this program will involve participation from many specialists including pediatric and fetal surgery, obstetrics, anesthesiology, cardiology, radiology, neonatology, neurosurgery, urology, cardiac surgery, neonatal and surgical nursing, and biomedical ethics.



Alex Kenton, MD

Journal Review

Malloy, MH. Trends in postneonatal aspiration deaths and reclassification of sudden infant death syndrome: Impact of "Back to Sleep" Program. *Pediatrics* 2002; 109(4): 661-665.

by Alex Kenton, MD

Introduction: Despite the belief that prone positioning of infants could lead to aspiration, in 1992 the American Academy of Pediatrics Task Force on Infant Positioning and SIDS recommended placing infants on their backs for sleep. This study sought to delineate whether there is a relationship between aspiration-related deaths and supine positioning. The study also examined whether the decrease in SIDS-related deaths could be attributable to a reclassification as to the cause of death.

Methods: Data were obtained from linked birth and infant death statistic tapes for the United States for 1991, '95 and '96. Because of a lack of linked tapes for 1992–1994, U.S. vital statistic natality and mortality tapes were used for those years. For births that were not linked, the number of births was obtained from natality tapes and causes of death were obtained from mortality tapes. ICD-9 codes for underlying causes of death included SIDS, aspiration, asphyxia, respiratory failure, and accidental suffocation in bed or cradle. Other broad categories of underlying causes of death also were examined to determine the major causes of death that could account for the drop in SIDS death. Demographic and infant birth information was used from linked files in 1995 and 1996 to examine characteristics of infants who died of SIDS compared to those who died of suffocation. Infants >500 grams were used for the study. Postneonatal mortality rates were calculated by dividing number of deaths that occurred beyond 28 days of life by the number of live births. Proportionate mortality ratios were also calculated for specific conditions. Significant trends in postneonatal mortality rates and postneonatal mortality ratios were determined using chi-square analysis. Logistic regression was used to determine significant population characteristics of the infants that died of SIDS compared with those infants who died of suffocation.

Results: The study found that during the six-year period (1991–1996) postneonatal mortality decreased 21.9% (P<0.001). SIDS postneonatal mortality declined 38.9% while the neonatal SIDS mortality rate declined 28%. Postneonatal aspiration-related deaths also decreased (P=0.01). There were no significant increases in the postneonatal mortality rate due to asphyxia or respiratory failure. Suffocation was the only cause of death for which a significant increase was shown for which a portion of previous SIDS deaths might be reclassified. The causes of death to which SIDS might be reclassified accounted for <2% of the total annual postneonatal mortality.

Discussion: This study supports the observations of others that mortality due to aspiration decreased at the same time that the incidence of supine positioning rose. Although a significant increase was seen in the mortality rate due to suffocation, that rate remained well below the SIDS rate (0.0093 per 1000 live births compared to 0.72 per 1000 live births in 1996). Thus, the drop in SIDS mortality is related to supine positioning.

Contact Us

The Baylor College of Medicine Section of Neonatology has staff at four hospitals in Houston's Texas Medical Center and in the local community.

To request a neonatal consultation at any of our locations, call 1-877-NEONATE (1-877-636-6283)

Texas Medical Center locations:

Texas Children's Hospital

6221 Fannin Street, Houston TX 77030
Director of Nurseries: James M. Adams, MD

For neonatal transport, call the Kangaroo Crew:
In Houston: 832-824-5550
Toll-free: 1-877-770-5550

St. Luke's Episcopal Hospital

6720 Bertner Avenue, Houston TX 77030
Director of Nurseries: Michael E. Speer, MD

The Methodist Hospital

6565 Fannin Street, Houston TX 77030
Director of Nurseries: Michael E. Speer, MD

Ben Taub General Hospital

1504 Taub Loop, Houston TX 77030
Director of Nurseries: Joe Garcia-Prats, MD

Community locations:

Twelve Oaks Medical Center - Sharpstown

6700 Bellaire Blvd, Houston TX 77074

Woman's Hospital of Texas

7600 Fannin Street, Houston TX 77056

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Fellowship Opportunities Available

The Baylor College of Medicine Neonatal-Perinatal Medicine Fellowship Program accepts applications year-round.

For information

- visit our website: www.neonate.net
- send email to: fellowship-program@neo.bcm.tmc.edu
- write to Dr. Leonard Weisman at the address on page 4 of this newsletter.

Neonatal Nutrition Fellowship Opportunities

The Baylor College of Medicine Neonatal Nutrition Fellowship Program (for Registered Dietitians with clinical experience) accepts applications year-round for two training periods (January–March and April–June). **For additional information contact Diane Anderson, PhD, RD**

- email: dianeanderson@bcm.tmc.edu
- telephone: 832-824-1346
- mail: to address at the top of page 4

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mediators that can serve as potential markers of lung injury in a premature infant. He presented his research at the 2001 American Academy of Pediatrics annual meeting and received The Young Investigator Award from the Perinatal Section of the Academy.

Dr. Clark also was active in educating medical students and residents. He participated in courses that teach second-year medical students physical examination of the newborn as well as the Neonatal Resuscitation Program instruction of incoming pediatric residents.

Upon completing his fellowship in June, Dr. Clark returned to Michigan.

Camellia Fituch, MD, is a native of Detroit, Michigan, and graduated from Wayne State University Summa Cum Laude in 1991. She received her medical degree from the University of Michigan Medical School in 1996 as a member of the Alpha Omega Alpha Honor Society. Her internship and residency training were completed at the University of Michigan C.S. Mott Children's Hospital in 1999.

During her Baylor Neonatal-Perinatal Medicine fellowship, she was involved in studies characterizing inflammatory cytokines in preterm human milk, particularly Interleukin-10. Abstracts from this work have been presented at meetings of the Federation of American Societies for Experimental Biology, South Central Conference on Perinatal Research, and the International Society for Research on Human Milk and Lactation. Also, Dr. Fituch was awarded two National Institute of Health Institutional Training Grants.

Upon completing her fellowship in June, Dr. Fituch moved to the Dallas-Fort Worth area.

Reba Hill Awards 2002



Three nurses were co-recipients of the 2002 Reba Hill Award, conferred by the Baylor Department of Neonatology in October. All three are dedicated nurses at Texas Children's Hospital.

Debra Lanclos, RN, BSN (above-left), is Assistant Director of the neonatal intensive care unit (NICU) and has been a nurse at Texas Children's for 13 years.

Debra Dinwiddie, RN, NNP (center) and **Lois Tracy, RN, NNP (below-right)**, are neonatal nurse practitioners who have worked in the bronchopulmonary dysplasia pod of the NICU for about three years.



Nominations are made by Section faculty, fellows, and staff each year. Eligible are the Section's non-physician employees "whose contributions have really made a difference toward achieving the ideals and goals of Dr. Hill (1930-1994) including her compassionate commitment to education, patient care, research, and family."

The selection committee agreed that it was very difficult this year in particular to select only one awardee from among the many excellent nominees.



photos courtesy of Texas Children's Hospital