

### **Maureen Hack, M.D.**

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#### EDUCATION

1953 - Graduation, Pretoria High School, South Africa, First Class Pass  
1954 - 1959 Pretoria University Medical School, South Africa, M.B., Ch.B.  
1960 - 1961 Rotating Internship, Sheba Medical Centre, Israel  
1960 - 1965 Pediatric Residency, Sheba Medical Centre, Israel  
1969 - 1970 Pediatric Cardiology Fellowship, Sheba Medical Centre  
1973 - 1975 Research Fellowship, Neonatology, Case Western Reserve Univ.

#### PROFESSIONAL APPOINTMENTS:

##### CWRU Appointments:

1977 - 1982 Assistant Professor - Department of Pediatrics, Rainbow Babies and Childrens Hospital, Case Western Reserve University, Cleveland, Ohio. Director of High Risk Follow-up Program.  
1982 - 1991 Associate Professor - Department of Pediatrics, Rainbow Babies and Childrens Hospital, Case Western Reserve University, Cleveland, Ohio. Director of High Risk Follow-up Program.  
1984 Associate Professor - Department of Obstetrics and Gynecology, Case Western Reserve University, Cleveland, Ohio.  
1986 - Award of Tenure, Case Western Reserve University, School of Medicine.  
July, 1991- Professor - Department of Pediatrics and Department of Obstetrics and Gynecology, Case Western Reserve University, Cleveland, Ohio.  
Director of High Risk Follow-up Program.

##### Other Appointments:

1966 - 1968 Associate - Department of Neonatology. Sheba Medical Centre  
1970 B 1973 Associate Director - Department of Neonatology. Specialist in Pediatrics - Sheba Medical Centre, Israel.  
1975 - 1976 Associate Director of Newborn and Premature Nurseries. Sheba Medical Centre. Tel Aviv University Medical School, Israel.  
1977-Present University Hospitals of Cleveland  
Bedford, Lake County East and South West General Hospitals.

#### MILITARY SERVICE

1963 - 1964 Israeli Medical Military Service

#### HONORS AND AWARDS:

Sage Audiovisual Award. Academy of Cerebral Palsy and Developmental Medicine - 1984. For production of videotape on preterm development.

#### LICENSURE AND BOARD CERTIFICATION

American Board of Pediatrics - 1976

Ohio State Medical Boards - 1977

American Board of Pediatrics, Sub-Board of Neonatal Perinatal Medicine - 1977

PROFESSIONAL SOCIETIES

1977 - Present Society for Research in Child Development  
 1977 - Present Ohio Perinatal Society  
 1978 - Present Northern Ohio Pediatric Society  
 1980 - Present American Academy of Cerebral Palsy and Developmental Medicine  
 1981 - Present Society for Neuroscience - Cleveland Chapter  
 1980 - Present National Perinatal Society  
 1979 - Present Womens Faculty of Medicine  
 1982 - Present Society for Pediatric Research  
 1984 - Present Academy of Medicine - Cleveland  
 1984 - Present American Academy of Pediatrics  
 1984 - Present Section of Perinatal Pediatrics  
 1984 - Present Section of Child Development  
 1986 - Present Society of Behavioral and Developmental Pediatrics  
 1986 - Present American Pediatric Society  
 1989 - Present European Society of Pediatrics  
 1989 - Present Society of Pediatric Epidemiology  
 1990 - Present European Society for Paediatric Research

REVIEWER OF JOURNALS:

1986 - Present New England Journal of Medicine  
 Journal of the American Medical Association  
 Early Human Development  
 Journal of Behavioral and Developmental Pediatrics  
 Developmental Medicine and Child Neurology  
 Pediatrics  
 Journal of Pediatrics  
 Archives of Pediatric and Adolescent Medicine  
 Lancet  
 Obstetrics and Gynecology  
 American Journal of Obstetrics and Gynecology

NATIONAL COMMITTEES - BOARDS:

1983 - 1985 Research Committee of the Robert Wood Johnson Infant Growth and Development Program  
 1985 Session Chair - Society for Research and Child Development  
 1986 Perinatal Epidemiology Working Group B Chairperson of session on Perinatal Interventions, New York  
 1984 - 1989 National Advisory Committee of the Robert Wood Johnson Infant Growth and Development Program  
 1987 - 1990 Chairperson, Generic Subcommittee of the NIH Cooperative Multicenter Network on Neonatal Intensive Care Units  
 1986 - 1990 NIH Mental Retardation Research Committee  
 1986 - 1988 Joint Committee on the High Risk Newborn: Environment, Intervention and Follow Up, American Hospital Association  
 1989 National Institute of Drug Abuse, Summer Study Section, Special Member  
 1990 APS-SPR Research Meetings - Anaheim, California. Chairperson, Neonatal Epidemiology and Follow Up Subsection  
 1991 Planning Committee. NIH Meeting on Fetal Behavior  
 1993 - 1996 NICHD Neonatal Network Developmental Follow-up Committee  
 1994 - Editorial Board, Journal of Neonatology  
 1996 - Consultant, Vermont Trials Network  
 1997 -1999 NICHD Study Section HUD-3  
 2000 - NIH Reviewer Reserve  
 2000 (August) NICHD Consensus Conference on Antenatal Steroids and Repeat Dosing  
 2002 (June) NICHD Consensus Conference on Neonatal Follow Up  
 2002 - Oversight Monitoring Board of NHLB Study, A Epidemiology of Surfactant Protein-B Deficiency@  
 2003 - Editorial Board. Journal of Developmental and Behavioral Pediatrics

2004 (January) NICHD-AAP Workshop on Research in Neonatology  
 2004 (March) NICHD Workshop on the Border of Viability

#### GRANT REVIEWS AND SITE VISITS:

Jan, 1985 NIH Grant Review - Ad Hoc Committee  
 June, 1985 NIH Site Visit - PERC Grant Cincinnati  
 Oct, 1985 NIH Site Visit - Program Project, Duke University  
 Mar, 1986 NIH Site Visit - Program Project, Duke University  
 Jan, 1987 NIH Site Visit Center Grant - Kennedy Center Albert Einstein University  
 Feb, 1987 NIH Site Visit Program Project - Temple University  
 1987, 1988 March of Dimes Grant Reviews  
 1986 – 1989 Canadian National Health Service Grant Reviews  
 Dec, 1987 NIH Site Visit - Mental Retardation Center Grant - Mailman Center - Miami  
 Jan, 1988 NIH Site Visit - Mental Retardation Center Grant - University of North Carolina  
 Dec, 1989 NIH Site Visit - Mental Retardation Center Grant - New York State Institute, Staten Island, New York  
 Feb, 1990 NIH Site Visit - Mental Retardation Center Grant - Kennedy Center, Albert Einstein, New York  
 May, 1991 NIH Site Visit - Neonatal Follow-up - Dallas, Texas  
 July, 1991 Packard Foundation Site Visit - Stanford University  
 Nov, 1993 AHCPH Grant Review  
 Jan, 1994 NIH Reverse Site Visit for Indomethacin Study  
 Aug, 1994 NIH Reverse Site Visit for Special Study Section  
 Oct, 1994 NCHS Consensus Conference on Growth Norms  
 Nov, 1994 AHCPH Grant review  
 Mar, 1995 Consultant. PERC Grant Review on Diabetes in Pregnancy. Providence, Rhode Island.  
 Mar, 1996 Health Research Council of New Zealand - Expert referee to review grants for health research projects.  
 1996 NIH Reviewer Reserve  
 Sept., 1996 NIH - Institute of Neurology and Stroke - Grant review  
 Sept., 1998 NIH - Meeting on Pediatric Drug Studies  
 Nov., 1996 NIH - Institute of Speech & Hearing - Grant review  
 1997, >98, >99 Canadian National Health Service Grant review  
 Aug., 1997 Israel National Institute for Health Policy Research and Health Services Grant review  
 1999 University of Witwatersrand, Johannesburg, South Africa. Ph.D. review  
 1999 New Zealand Health Service Grant review  
 Nov., 1999 NIH- Institute of Neurology and Stroke - Grant review  
 Aug., 2000 NIH Consensus Conference on Repeat Use of Antenatal Steroids  
 2001, 2002 Special Study Section NICHD  
 Nov. 5, 2001 Special Study Section NICHD  
 April, 2002 Special Study Section NICHD  
 April, 2002 Canadian Smith Prize Review  
 June, 2002 NICHD Neonatal Follow-up Consensus Conference  
 2002 Consultant. Childrens Health Study  
 March, 2003 Ad Hoc Reviewer NIMH Study Section  
 June, 2003 Consultant. RAND Corporation  
 June, 2003 Ad Hoc Reviewer NHLB Study Section

#### LOCAL, HOSPITAL AND UNIVERSITY COMMITTEES

1984 Bone Marrow Transplant Task Force  
 1984 - 1985 Cleveland Regional Perinatal Network  
 1985 Northern Ohio Pediatric Society - Early Childhood and Parenting Committee  
 1986 Committee on Examination for Phase I-II Medical Students  
 1986 - 1989 Steering Committee - Women Faculty School of Medicine  
 1988 Member, Search Committee for Chairperson of Department of Epidemiology and Biostatistics  
 1986 Member, Child and Health Services, Consortium of Cuyahoga County  
 1988 - 1991 Member, Faculty Council, Case Western Reserve University School of Medicine  
 1989 Member Critical Care Review Committee  
 1989 Member Search Committee for Director of Obstetrics and Gynecology, Mt. Sinai Medical Center  
 1989 - Present Member Ethics Committee, Rainbow Babies and Childrens Hospital

1989 - Present Member Institutional Review Committee, Rainbow Babies and Childrens Hospital  
 1989 - 1991 Member Planning and Priorities Board, Rainbow Babies and Childrens Hospital  
 1991 - 1992 Member, Search Committee for Chairperson of Department of Epidemiology and Biostatistics  
 1991 Member, Department of Pediatrics Committee for Promotion and Tenure  
 1992 Vice Chairperson, Women's Faculty, School of Medicine  
 1992 - 1995 Member, Committee for Promotion and Tenure, School of Medicine  
 1993 - 1995 Committee on Neuroscience for Rainbow 2000  
 1996 Member, Search Committee for Chief of Behavioral Pediatrics  
 1996 - 1997 Member, Search Committee for Health Outcomes Research Specialist  
 1998- 2001 Chair, Committee for Promotion and Tenure (Pediatrics)  
 2003 - Committee for Promotion and Tenure (School of Medicine)

RESEARCH AWARDS AND GRANTS:

Completed N.I.H. Grants

National Institutes of Health Contract - 1984

Grant Period: 1985-1987

Project Titles: (a) Collaborative Clinical Trial on High Frequency Ventilation  
 (b) Follow-up of Infant Survivors of Collaborative Clinical Trial on High Frequency Ventilation.

Co-Investigator (Principal Investigator - R. Martin)

National Institutes of Health RO1 20057

Grant Period: 1985-1989 - \$170,000 per year

Project Title - Very Low Birthweight and Brain Growth Failure - 8 Year Follow-up

Principal Investigator - M. Hack

National Institutes of Health

Grant Period: 1989-1991

Project title - Developmental Sequelae of Severe Chronic Lung Disorders in Infancy

Co-investigator (Principal investigator - Lynn Singer, Ph.D.)

Maternal and Child Health

Grant Period: 1990-1991

Project Title - Psychosocial Sequelae of Bronchopulmonary Dysplasia and Very Low Birthweight.

Co-Investigator (Principal Investigator - Lynn Singer, Ph.D.)

National Institutes of Health RO1 26554

Grant Period: 1990-1993 - \$436,507

Project title - School Age Consequences of < 750 Gram Birthweight

Principal investigator - M. Hack

National Institutes of Health RO1 NS34508-01A2

Grant Period: 1997-2001

Project Title - A Multicenter Study of Sleep and Outcome in High Risk Infants.

Principal Investigator - M.S. Scher, M.D.

National Institutes of Health RO1 HD34177

Grant Period: 1997-2002 - \$763,585

Project Title - Young Adult Outcomes of Very Low Birthweight

Principal Investigator - M. Hack

National Institutes of Health RO1 26554-04A1

Grant Period: 1995-2005 - \$1,109,947

Project Title - School-age Consequences of < 750 Gram Birthweight

Co-Principal Investigator (Principal Investigator - H. Gerry Taylor)

Current NIH Funding

National Institute of Health HD39756

Grant Period: 2001-2005 (\$1,889,505)

Project Title: School Age Outcomes of < 1000 gm Birth Weight Children

Principal Investigator - M. Hack

Pending:

National Institutes of Health HP 34177

Competitive Continuation of Young Adult Outcome of Very Low Birth Weight at 27 Years.

Principal Investigator - M. Hack

National Non-Federal Grants

Robert Wood Johnson Foundation

Grant Period: 1979-1982, \$400,000

Project title - Post Perinatal Care - A Continuity of Follow-up for Infants, Mothers and Children.

Principal Investigators - I. Merkatz, A. Fanaroff

March of Dimes - National Foundation

Grant Period: 1981-1982 - \$25,000

Project Title - Transactional Competence and Attachment Behavior in Very Low Birthweight Infants

Principal Investigator - D. Drotar

Wyeth Laboratories International

Grant Period: 1981-1984 - \$50,000

Project Title - Film on the Sensory Development of the Preterm Infant

Grant to M. Hack

Easter Seal Research Foundation

1981 - 1982 - \$15,000

1982 - 1983 - \$15,000

1983 - 1984 - \$15,000

Principal Investigator - M. Hack

Grant Foundation

Grant Period: 1986-1988 - \$40,000 per year

Project Title - Very Low Birthweight Children and Brain Growth Failure. Supplement to NIH grant to evaluate behavior.

Co-Investigator 1986-1987, Principal investigator 1988 (5% salary support)

Wyeth Laboratories International

Grant Period: 1988-1990 - \$35,000

Project Title - Videotape on the Development of Premature Infants at Home

Grant to M. Hack

Antocin Study to Prevent Prematurity

Director of Neonatal and Follow-up Component

Grant Period 1995-1996 - \$20,000

RESEARCH AWARDS AND GRANTS cont'd:

Genentech Foundation

Grant Period: 9/1/96 to 8/31/97 - \$22,500

Project Title - Young Adult Growth Attainment of Very Low Birthweight Children

Principal Investigator - M. Hack, no salary support

Rainbow Research Award 1978

Project Title - Visual Attention of Premature Infants

Ohio Department of Health Grant

Perinatal Education Team

Region V \$20,000 per year - 1981 to present

March of Dimes - Local Chapter

Grant Period: 7/81-12/82 - \$15,000  
 Project Title - Follow Up Program of Very Low Birthweight Infants  
 Principal Investigator - M. Hack

Cleveland Foundation  
 Grant Period: 1985-1986  
 Project Title - Nine Year Outcome of Preterm Children  
 Co-Investigator (Principal Investigator - N. Klein)

St. Anne Foundation, The Plain Dealer, Rainbow Women's Council  
 Grant Period 1989-1990 - \$23,000  
 Project title - Follow up Home Visitor Nurse Surveillance Program  
 Director - no salary support

CWRU Presidential Research Initiative  
 2002 - \$25,000

## PUBLICATIONS

### Peer Reviewed

1. Eliahou Y, Hack M: Treatment of terminal chronic renal failure. Harefuah 69:355, 1965.
2. Hack M, Brish M, Serr DM, Insler V, Lunenfeld B: Outcome of pregnancy after induced ovulation: Follow-up of pregnancies and children born after gonadotropin therapy. JAMA 211:791-797, 1970.
3. Mashiach S, Brish M, Hack M, Ismajovich B, Serr DM: Treatment of asphyxia neonatorum with buffer solutions. Harefuah 78:163-168, 1970.
4. Hack M, Yahini JH, Shem-Tov A, Neufeld H: The left ventricular right atrial communication. The Arch of the Turkish Society of Cardiology 3:95-104, 1970.
5. Hack M, Shem-Tov A, Deutch V, Yahini JH: The left ventricular right atrial communication. Harefuah 80:475-479, 1970.
6. Hack M, Brish M, Serr DM, Insler V, Lunenfeld B: Outcome of pregnancy after induced ovulation: Follow-up of pregnancies and children born after clomiphene therapy. JAMA 220:1329-1333, 1972.
7. Hack M, Brish M: A 'finger equivalent' of the toe tourniquet syndrome. Pediatrics 50:348-349, 1972.
8. Hack M, Jaffe J, Blankenstein J, Goodman RM, Brish M: Familial aggregation in bilateral renal agenesis. Clinical Genetics 5:173-177, 1974.
9. Hack M, Fanaroff A, Klaus MH, Mendelawitz B, Merkatz I: Neonatal respiratory distress following elective delivery. Am J Obstet Gynecol 126:43-47, 1976.
10. Hack M, Mostow A, Miranda S: Development of attention in preterm infants. Pediatrics 58:669-674, 1976.
11. Miranda SB, Hack M, Fantz RL, Fanaroff AA, Klaus MH: Neonatal pattern vision: A prediction of future mental performance. J Pediatr 91:642-647, 1977.
12. Hack M, Fanaroff AA, Merkatz IR: The low birth weight infant. Evolution of a changing outlook. N Engl J Med 301:1152-1165, 1979.
13. Hack M, Merkatz IR, Jones P, Fanaroff AA: Changing trends of neonatal and postneonatal deaths in very low birthweight infants. Am J of Obstet Gynecol 137:797-800, 1980.
14. Cox C, Hack M, Metz D: Brainstem evoked response audiometry: Normative data from the preterm infant. Audiology 20:53-64, 1981.

15. Hack M, Demonerice D, Merkatz IR, Jones P, Fanaroff AA: Rehospitalization of the very low birthweight infant - A continuum of perinatal and environmental morbidity. *Am J Dis Child* 135:263-266, 1981.
16. Hack M, Muszinski S, Miranda S: Awakeness and visual fixation in preterm infants. *Pediatrics* 68:87-91, 1981.
17. Cox LC, Hack M, Metz DA: Brainstem evoked response audiometry in the premature infant population. *Int J Pediatr Otorhinolaryn* 3:221-224, 1981.
18. Hack M, Merkatz IR, Gordon, D, Jones PK, Fanaroff AA: The prognostic significance of postnatal growth in very low birthweight infants. *Am J Obstet Gynecol* 143:693-699, 1982.
19. Kliegman RM, Hack M, Jones PK, Fanaroff AA: Prospective epidemiological study of necrotizing enterocolitis among low birth weight infants: Absence of identifiable risk factors. *J Pediatr* 100:440-444, 1982.
20. Cox LC, Hack M, Metz DA: Longitudinal ABR in the NICU infant. *Intl Pediatr Otolaryn* 4:225-231, 1982.
21. Hack M, Rivers A, Fanaroff AA: The very low birthweight infant: The broader spectrum of morbidity during infancy and early childhood. *J Dev Behav Pediatr* 4:343-349, 1983.
22. Johnson DC, Krejci C, Hack M, Fanaroff A: Distribution of enamel defects and the association with respiratory distress in very low birthweight infants. *J Dental Res* 63:59-64, 1984.
23. Cox LC, Hack M, Metz DA: Auditory brainstem abnormalities in the very low birthweight infant. Incidence and risk factors. *Ear and Hearing* 5:47-51, 1984.
24. Hack M, Merkatz IR, McGrath SK, Jones PK, Fanaroff AA: Catch-up growth in very low birthweight infants: Perinatal and clinical correlates. *Am J Dis Child* 138:370-375, 1984.
25. Paludetto R, Robertson SS, Hack M, Shivpuri S, Martin R: Transcutaneous oxygen tension during non-nutritive sucking in preterm infants. *Pediatrics* 74:539-542, 1984.
26. Klein N, Hack M, Gallagher J, Fanaroff A: Preschool performance of the normal intelligence very low birthweight infant. *Pediatrics* 75:532-537, 1985.
27. Hack M, Estabrook M, Robertson S: Development of sucking rhythm in preterm infants. *Early Human Development* 11:133-140, 1985.
28. Hack M, Breslau N: Very low birthweight infants. Effects of brain growth during infancy on intelligence quotients at three years of age. *Pediatrics* 77:196-202, 1986.
29. Hack M, Fanaroff A: Delivery room care of the fetal infant: Effects on morbidity and outcome. *N Engl J Med* 314:660-664, 1986.
30. Rivers A, Hack M: Experience of families with very low birthweight children with neurologic sequelae. *Clin Pediatr* 26:223-230, 1987.
31. Hack M, Breslau N, Rivers FA, Fanaroff AA: Differential effects of intrauterine and postnatal brain growth failure in infants of very low birth weight. *Am J Dis Child* 143:63-68, 1989.
32. Klein NK, Hack M, Breslau N, Fanaroff A: Children who were very low birthweight: Development and academic achievement at nine years of age. *Develop Behav Pediatr* 10:32-37, 1989.
33. Hack M, Fanaroff AA: Outcome of extremely low birth weight infants 1982-1988. *N Engl J Med* 321:1642-1647, 1989.
34. Walsh MC, Kliegman RM, Hack M: Influence of severity of necrotizing enterocolitis on outcome at two years

- of age. *Pediatrics* 84:808-814, 1990.
35. Skidmore MD, Rivers A, Hack M: Increased risk of cerebral palsy among very low birthweight infants with chronic lung disease. *Dev Med Child Neurol*, 32:325-332, 1990.
  36. Hack M. Book Review: *The Baby Under 1000 g*. Harvey D, Cooke RWI, Levitt GA (eds). Boston, Wright, 1989. *N Engl J Med* 322:1824, 1990.
  37. Hack M, Horbar JD, Malloy MH, Tyson JE, Wright L, Wright E: Very low birthweight outcomes of the NICHD neonatal network. *Pediatrics* 87:587-597, 1991.
  38. Fanaroff AA, Martin RJ, Hack M: Long-term outcome of respiratory distress in infants. *J Resp Care* 36:707-719, 1991.
  39. Hack M, Breslau N, Weissman B, Aram D, Klein N, Borawski E. Effects of very low birth weight and subnormal head size on cognitive abilities at school age. *N Engl J Med* 325:231-237, 1991.
  40. Aram DM, Hack M, Hawkins S, Weissman BM, Borawski E: Very low birthweight children and speech and language development. *J Speech and Hearing* 34:1169-1179, 1991.
  41. Cox C, Hack M, Aram D, Borawski E: Neonatal auditory brainstem response failure of very low birthweight infants: Eight year outcome. *Pediatr Res* 31:68-72, 1992.
  42. Joint Committee on High Risk Infant Environment, Intervention and Follow-up, a subcommittee of the Maternal and Child Health Section of the American Public Health Association. The high-risk infant environment, part 1. The role of the neonatal intensive care unit in the outcome of high-risk infants. *J Perinat* 12:164-172, 1992.
  43. Rajput A, Gauderer MWL, Hack M: Inguinal hernias in very low birth weight infants: incidence and timing of repair. *J Pediatr Surg* 27:1322-1324, 1992.
  44. Hack M, Breslau N, Aram D, Weissman B, Klein N, Borawski-Clark E: The effect of very low birthweight and social risk on neurocognitive abilities at school age. *J Dev Behav Pediatr* 13:412-420, 1992.
  45. Cox LC, Martin RJ, Carlo WA, Hack M: Early ABRs in infants undergoing assisted ventilation. *J Am Acad Audiol* 4:13-17, 1993.
  46. Hack M, Weissman B, Breslau N, Klein N, Borawski-Clark E, Fanaroff AA: Health of very low birthweight children during their first 8 years. *J Pediatrics*, 122:887-892, 1993.
  47. Hack M, Fanaroff AA: Outcomes of extremely immature infants - a perinatal dilemma. (Editorial) *N Engl J Med* 329:1649-1650, 1993.
  48. Hack M: How small is too small? *Japanese J Neonatal Care* 6:85-88, 1993.
  49. Pappin A, Shenker N, Hack M, Redline RW: Extensive intraalveolar pulmonary hemorrhage in infants dying after surfactant therapy. *J Pediatr* 124:621-626, 1994.
  50. Walsh-Sukys MC, Bauer R, Cornell DJ, Friedman H, Stork EK, Hack M: Severe respiratory failure in neonates: Mortality, morbidity and neurodevelopmental outcome. *J Pediatr* 125:104-110, 1994.
  51. Hack M, Taylor HG, Klein N, Eiben R, Schatschneider C, Mercuri Minich N: School age outcome of a regional cohort of <750 gm birthweight children. *N Engl J Med*, 331:753-759, 1994.
  52. Lantos JD, Tyson JE, Allen A, Frader J, Hack M, Korones S, Merenstein G, Paneth N, Poland R, Saigal S, Stevenson D, Truog RD, Van Marter L: Withholding and withdrawing life-sustaining treatment in neonatal intensive care: Issues for the 1990s. *Arch Dis Child* 7 1:F218-F223, 1994.
  53. Eiben RM, Hack M, Taylor G, Klein M: Neurological and cognitive outcome of extremely low birth weight

(<750 grams) children at school age. *Audiology* 25:63-67, 1994

54. Hack M, Wright LL, Shankaran S, Tyson JE, Horbar JD, Bauer CR, Younes N, Malloy M: Very low birthweight outcomes of the NICHD Neonatal Network November 1989 - October 1990. *Am J Obstet Gynecol* 172:457-464, 1995.
55. Furman L, Hack M, Watts C, Borawski-Clark E, Baley J, Amini S, Hook B. Twenty month outcome of ventilator dependent very low birthweight children born during the early years of dexamethasone therapy. *J Pediatr* 126:434-440, 1995.
56. Hook B, Hack M, Morrison S, Borawski-Clark E, Shenker N, Fanaroff A: Pneumopericardium in very low birth weight infants. *J Perinatol* 15:27-31, 1995.
57. Taylor HG, Hack M, Klein N, Schatschneider C: Achievement in <750 gm birthweight children with normal cognitive abilities: Evidence for specific learning disabilities. *J Pediatr Psychol* 20:703-719, 1995.
58. Hack M, Merkatz IR: Preterm delivery and low birth weight - a dire legacy. *N Engl J Med* 333:1772-1774, 1995.
59. Wilson D, Rao P, Morrison S, Hack M: Radiation dose from x-rays to <750 gm birthweight survivors. *Pediatrics* 97:369-375, 1996.
60. Furman L, Baley J, Borawski-Clark E, Hack M: The spectrum of hospitalizations among very low birthweight infants with chronic lung disease. *J Pediatr* 128:447-452, 1996.
61. Hack M, Friedman H, Fanaroff AA: Outcome of extremely low birthweight infants. *Pediatrics* 98:931-937, 1996.
62. Hack M, Weissman B, Borawski-Clark E: Catch-up growth during childhood among very low birthweight children. *Arch Pediatr Adolesc Med* 150:1122-1129, 1996.
63. Hook B, Kiwi R, Amini SB, Siner B, Newman N, Fanaroff A, Hack M: Neonatal morbidity following elective repeat cesarean section and a trial of labor. *Pediatrics* 100:348-353, 1997.
64. Hack M: Effects of intrauterine growth retardation on mental performance and behavior, outcomes during adolescence and adulthood. *Eur J Clin Nutr* 52:S1, 65-71, 1997.
65. Taylor HG, Hack M, Klein N: Attention deficits in children with <750 gram birthweight. *Child Neuropsychol* 4: 21-34, 1998.
66. Taylor HG, Klein N, Schatschneider C, Hack M: Predictors of early school age outcomes in very low birthweight children. *J Dev Behav Pediatr* 19:235-243, 1998.
67. Furman L, Minich NM, Hack M: Breastfeeding of very low birthweight infants. *J Human Lactation* 14(1):29-34, 1998.
68. Wilson-Costello D, Borawski E, Friedman H, Redline R, Fanaroff AA, Hack M: Perinatal correlates of cerebral palsy and other neurologic impairment among very low birthweight children. *Pediatrics* 162:315-322, 1998.
69. Hack M, Cohen A: Acetazolamine plus furosemide for periventricular dilatation: lessons for drug therapy in children. *Lancet* 352:418-419, 1998 (Invited commentary).
70. Redline RW, Wilson-Costello D, Borawski E, Hack M: Placental lesions associated with neurologic impairment and cerebral palsy in very low birth weight infants. *Arch Path Lab Med*, 122:1091-1098, 1998.
71. Hack M, Fanaroff AA: Outcomes of children of extremely low birthweight and gestational age in the 1990=s. *Early Human Dev* 53:193-218, 1999. Tomaszewska M, Stork E, Mercuri Minich N, Friedman H, Berlin S, Hack M: Pulmonary Hemorrhage: Clinical outcomes among very low birthweight infants. *Arch Pediatr Adolesc*

- Med, 153: 715-721, 1999.
72. Tomaszewska M, Stork E, Mercuri Minich N, Friedman H, Berlin S, Hack M: Pulmonary Hemorrhage: Clinical outcomes among very low birthweight infants. *Arch Pediatr Adolesc Med*, 153:715-721, 1999.
  73. Hack M: Consideration of the use of health status, functional abilities and quality of life to monitor neonatal intensive care practice. *Pediatrics On Line Supplement*. *Pediatr* 1999, 103:312-328.
  74. Fanaroff A, Hack, M: Periventricular leucomalacia. Prospects for prevention. *N. Engl. J. Med.* 1999, 341: 1229-1231.
  75. Hack M, Taylor GH, Klein N, Minich NM: Functional limitations and special health care needs of 10 to 14 year old children with birth weights under 750 grams. *Pediatrics* 2000, 106: 554-560.
  76. Hack M, Wilson-Costello D, Friedman H, Minich Mercuri N, Taylor GH, Schluchter M, Fanaroff A: Neurodevelopment and predictors of < 1000 gm birth weight children born 1992-1995. *Archives of Pediatric and Adolescent Medicine* 2000, 154: 725-731.
  77. Taylor HG, Klein N, Hack M: Consequences of < 750 gm birthweight. *Developmental Neuropsychology* 2000, 17(3): 289-321.
  78. Redline RW, Wilson-Costello D, Borawski E, Fanaroff AA, Hack M: The relationship between placental and other perinatal risk factors for neurologic impairment in very low birth weight children. *Pediatric Research* 2000, 47: 721-726.
  79. Hack M, Taylor HG. Perinatal brain injury in preterm infants and later neurobehavioral function. *JAMA* 2000, 284:1973-1974. (Editorial).
  80. Taylor HG, Klein N, Minich NM, Hack M: Middle School-Age Outcomes in Children with <750 Gm Birth Weight. *Child Development* 2000, 71: 1495-1511.
  81. Taylor HG, Klein N, Minich NM, Hack M: Verbal memory deficits in children with < 750 g birth weight. *Child Neuropsychology* 2000, 6: 49-63.
  82. Taylor HG, Klein In, Minich NM, Hack M: Long-term family outcomes for children with very low birth weight. *Archives of Pediatric and Adolescent Medicine* 2001, 155:155-161.
  83. Cunningham C, Taylor HG, Minich NM, Hack M: Constipation among less than 750 gram birth weight children at 10 to 14 years of age. *Journal of Pediatric Gastroenterology and Nutrition* 2001, 40:473-480.
  84. Doctor BA, O=Riordan MA, Kirchner H, Shah D, Hack M: Perinatal correlates and neonatal outcomes of small for gestational age infants born at term gestation. *Am. J. Obstet. Gynecol.* 2001, 185:652-659.
  85. Doctor BA, Newman N, Minich NM, Taylor HG, Fanaroff AA, Hack M. Clinical outcomes of neonatal meningitis in very-low-birth-weight infants. *Clin Pediatr* 2001, 40:473-480.
  86. Hack M, Flannery D, Schluchter M, Cartar L, Borowski E, Klein N. Young adult outcomes of very low birth weight children (VLBW, < 1.5 kg). *N Engl J Med*, 2002 , 346:149-157.
  87. Furman L, Minich N, Hack M. Correlates of Lactation in mothers of very low birth weight infants. *Pediatrics*, 2002 109:4. URL: <http://www.pediatrics.org/cgi/content/full/109/4e/57>.
  88. Redline RW, Wilson-Costello D, Hack M. Placental and other perinatal risk factors for chronic lung disease in very low birth weight infants. *Pediatr Res* 2002, 52:713-719.
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#### PUBLICATIONS RESULTING FROM DR. HACK'S LONGITUDINAL COHORT OF VERY LOW BIRTHWEIGHT INFANTS (Not co-authored by Dr. Hack)

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#### LETTERS TO EDITOR

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#### CHAPTERS AND INVITED REVIEWS

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Hack M, Lunenfeld B: The influence of hormonal induction of ovulation on the fetus and newborn. In Nitzan M (ed) Pediatric Adolescent Endocrinology: The Influence of Maternal Hormones on the Fetus and Newborn. S. Karger, Basel, Switzerland, 1979.

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#### ABSTRACTS (\*Presentations at National Meetings)

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Develop and Behav Pediatr, 1998.

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59. \*Furman L, Hack M, Minich N. Correlates of lactation at term gestation in mothers of very low birth weight (VLBW, < 1.5 kg) infants. *Pediatric Research* 2001, 49:295A.
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61. \*Furman L, Hack M, Minich N, Schluchter M. Feeding fortified maternal milk results in lesser weight gain for very low birth weight (VLBW, < 1.5 kg) infants. *Pediatric Research* 2001, 49:260A.
62. \* Furman L, Taylor HG, Minich N, Hack M. The effects of feeding breastmilk on neonatal morbidity of very low birth weight (<1.5 kg, VLBW) infants. *Pediatric Research* 2002, 51:295A
63. \* Taylor HG, Minich N, Klein N, Hack M. Behavioral and academic development in very low birth weight (<1.5 kg, VLBW) children during the school-age years. *Pediatric Research* 2002, 51:23A.
64. \* Wilson-Costello DE, Fanaroff AA, Minich N, Friedman H, Hack M. Improved survival of <1000 gm birth weight children in the 1990's: At what cost? *Pediatric Research* 2002, 51:441A.
65. \* Hack M, Schluchter M, Rahman M, Cuttler L, Cartar L. Differential growth attainment of very low birth weight (VLBW, <1.5 kg) males and females at age 20 years. *Pediatric Research* 2002, 51:335A.
66. \* Hack M, Rahman M, Schluchter M, Cuttler L, Cartar L. Blood pressure among very low birth weight (VLBW <1.5 kg) young adults. *Pediatric Research* 2002, 51:334A.
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69. \* Hack M, Morrow M, Cartar L, Klein N, Drotar D, Schluchter M, Wilson-Costello D, Taylor G. Improved cognitive function of extremely-low-birth-weight (ELBW, < 1kg) children at age 8 years: Poor predictive validity of the Bayley II Mental Development Index (MDI). *Pediatric Research*, 2004, 55:504A.

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71. \* Patra K, Minich N, Taylor HG, Wilson-Costello D, Hack M. Grade I-II intraventricular hemorrhage (IVH) in extremely low birth weight infants (ELBW, < 1kg): Effects on neurodevelopment. *Pediatric Research* 2004, 55:504A.
72. \* Peterson J, Taylor HG, Minich N, Klein N, Hack M. Effect of subnormal head size on school age outcomes of very low birth weight (VLBW b<1500g) children. *Pediatric Research* 2004, 55:475A.
73. \* Sices L, Wilson-Costello D, Minich N, Hack M. Failure to thrive after discharge among extremely low birthweight (ALBW, <1kg) infants: A common problem. *Pediatric Research* 2004, 55:442A.
74. \* DiFiore JM, Hack M, Arko MK, Minich N, Martin RJ. Persistent apnea of prematurity among very low birth weight infants (VLBW, <1.5kg): Demographic and neonatal correlates. *Pediatric Research* 2004, 55:528A.

#### INTERNATIONAL PRESENTATIONS

International Association for the Scientific Study of Mental Deficiency. Very low birth weight - Changing outcomes related to perinatal care. Dublin, August 1988.

Australia - Australian Perinatal Society Meeting, November 1991.

New Zealand - Auckland Children's Hospital, December 1991.

Canada - Winnipeg, April 1992.

Argentina - International Postgraduate Course in Neonatal Intensive Care, May 26-29, 1992. Japan - Osaka. Invited Speaker. Congress of the Japan Society for Premature and Newborn Medicine, November 1992.

Holland - University of Amsterdam. Invited Speaker. May 1993.

Italy - Rome. Second World Congress of Perinatal Medicine. Symposium on outcome of extremely low birthweight children. September 1993.

Canada - Vancouver. Child Health 2000. Extremely Low Birthweight Outcomes. July, 1994.

Canada - Calgary. Outcomes of the SGA Child. April, 1997.

Israel - Tel Aviv. How small is too small? The extremes of viability. September 25, 1997.

Poland - Krakow. Outcomes of preterm children. May, 2000.

Sweden - Stockholm. Symposium on the preterm brain. February, 2002.

Hungary - Lake Balaton. Young adult outcomes of very low birth weight infants. September, 2002.

England - Nottingham. Young Adult Outcomes. February, 2003.

Canada - Calgary. Young Adult Outcomes. April, 2003.

Norway - Bergen. VLBW Outcomes. February 2004.

Norway - Trondheim. School Age Outcomes. February 2004.

Norway - Oslo. Extremely Low Birth Weight Outcomes. February 2004.

#### NATIONAL PRESENTATIONS (Since 1990)

##### 1990

Follow Up Care of the NICU Graduate. Ed Bixby Institute for Postgraduate Medical Education. Kansas; February 9.

Selma Collins Perinatal Conference on Low Birthweight. Toledo, OH; April. North Carolina Spring Neonatology Meetings. Raleigh, NC; April.

##### 1991

South Carolina Chapter of the American Academy of Pediatrics, July.

Neonatal Perinatal Medicine. University of California, Irvine; Visiting Professor; September 23-27.

New Haven Perinatal Society Meeting. November.

##### 1992

Invited Speaker, Idaho Perinatal Project. January.

Invited Speaker for symposium on infant mortality. The American Association of the Advancement of Science Annual Meeting. February 8.

##### 1993

Visiting Professor, Harvard Medical School, Department of Pediatrics. March 29-30.

Visiting Professor, University of Illinois. December.

#### 1994

Visiting Professor, University of Florida; Jacksonville, Florida. February 17-18.

Invited Speaker, International Conference on Resuscitation, "How Small is Too Small?"; Washington. June 11.

Invited Speaker, "Follow up from A to Z", "Early and School Age Outcomes of VLBW Children"; The Fetus and Newborn Conference; New Orleans, LA. September 19.

Invited Speaker, "The Limits of Viability" Conference on Ethics, Harvard Medical School; Boston, MA. September 22.

Invited Speaker, "The Smallest <750 gm Birthweight Children"; Hot Topics in Neonatology, Ross Laboratories; Washington, D.C. December 5.

#### 1995

State of the Art Lecture, "The Extremely Low Birthweight Infants. How Far Have We Gone?" Western Society of Pediatric Research; Carmel, CA. February 9.

Invited Speaker, "Outcomes of Preterm Infants". 11th National Parent Care, Inc., Conference for Family and Caregivers; Columbus, OH. March 10.

Invited Speaker, "How Small is Too Small? Outcomes of Extremely Low Birthweight Infants". Kaiser Foundation Sixth Annual Neonatal Conference; San Francisco, CA. March 18.

Invited Speaker, Outcomes of Growth Retarded Infants. NICHD Conference: Fetal Growth - Its Regulation and Disorders. April.

Invited Speaker, "Survival of Very Low Birthweight Babies". 2nd World Conference and Exposition on Child Health; Vancouver, B.C. June 2.

Invited Speaker, Annual Conference and Grand Rounds, Robert Wood Johnson Medical School; New Jersey. June 8.

Invited Participant, Post Discharge Nutrition and Growth of VLBW Infants. Ross Meeting; Colorado. August.

Invited Speaker, "Growth Outcomes of Very Low Birthweight Children". Regional Perinatal Conference; Indiana. September 7.

Invited Speaker, Conference: The Cutting Edge of Neonatology; Detroit, MI. September 22.

Invited Speaker, "Saving Very Low Birthweight Infants. How Do We Decide?" American Academy of Pediatrics Meeting, Section on Perinatology. San Francisco, CA. October 14.

#### 1996

Invited Speaker, Neonatal Nutrition Conference. Charleston, SC. March 13.

Invited Speaker, University of Chicago Perinatal Network Annual Meeting. Chicago, IL. May 23.

Invited Speaker, Contemporary Forums. Washington, DC. October 3-4.

Invited Speaker, Perinatal Meeting. Appleton, WI. November 6.

Invited Speaker, Christ Church. Chicago, IL. November 21.

Guest Speaker, International Workshop on Causes and Consequences of Intrauterine Growth Retardation. Baton Rouge, LA. November 10-16.

#### 1997

Guest Speaker and Visiting Professor, University of Massachusetts. Worcester, MA. June 6.

Invited Speaker, Spokane, WA. August 6-7.

Invited Speaker, Does neonatal nutrition affect later growth, NIH Workshop on Nutrition of Extremely Low Birthweight Children. Washington, DC. September 10-12.

Invited Platform Presentation, Ross Hot Topics Meeting. Washington, DC. December 8.

#### 1998

Invited Speaker, Tucson and Phoenix Neonatal Society Meeting. March 9-11.

Invited Speaker, American Thoracic Society Meeting (1) Neurodevelopmental Outcomes of Infants with Chronic Lung Disease. (2) Outcomes Research on Chronic Lung Disease. Chicago, IL. April 25-27.

Invited Speaker, South Eastern Association Meeting. Marco Island, FL. May 14-16.

Invited Speaker. Rogue Valley Medical Center Perinatal Conference. Spokane, WA. July 23-25.

Key Note Address, Society of Developmental and Behavioral Pediatrics Annual Meeting. Cleveland, OH. September 27.

Invited Speaker, Vanderbilt University Annual Meeting. Williamsburg, VA. October 9-10.

Invited Speaker, Perinatal Update 1998. Poughkeepsie, NY. October 17.

1999

Invited Speaker, Alabama Perinatal Society. Montgomery, AL. June 3.  
 Invited Speaker, Columbia University - Survival at the Limits of Viability. New York, NY. June 16.  
 Invited Speaker, New York University Perinatal Center. Outcomes of the Smallest Babies in the 1990's. June 17.  
 Invited Speaker, Syracuse Perinatal Center. Outcomes of the Smallest Babies in the 1990's. Implications for Future Health Needs. October 7.  
 Invited Speaker, Mercy Children's Hospital, Toledo. Developmental Follow-up of Preterm Infants. April 20.

2000

Invited Speaker, March of Dimes, New York, Long term outcomes of very low birth weight children. November 17.  
 Invited Speaker, Washington. Vermont Trials Group Annual Meeting. Outcomes of very low birth weight children. December 2.

2001

Invited Speaker, Institutes of Medicine, Washington D. Roundtable on Environmental Health Sciences. October 2.  
 Invited Speaker, Neoprep Course Lecture and Workshop, Boston. August 18.  
 Invited Speaker, Mid Western Society of Pediatric Research, Chicago. Key note speaker. September 5.  
 Invited Speaker, Kaiser Permanente Neonatal Medicine Symposium. Los Angeles. May 23.

2002

Invited Speaker, Grand Rounds, Department of Pediatrics, UCLA, Los Angeles, California. January 17.  
 Invited Speaker, Regional Mead Johnson Perinatal Conference, Nemaquin. February 25.  
 Invited Speaker, Department of Pediatrics Crozer-Keystone Health System, Upland, PA. October 4.  
 Invited Speaker, NIH, Epidemiology Section. October 11.  
 Invited Speaker, Neonatal Fellow Training Course, Marco Island. November 21.  
 Invited Speaker, Hot Topics. December 9.

2003

Invited Speaker, Duke University. Young Adult Outcomes of Very Low Birth Weight. September.  
 Invited Speaker, Columbus, Ohio. Neurological Outcomes of Very Low Birth Weight Children. November.

2004

Invited Speaker, Milwaukee. The Extremely Low birth Weight Infant. March.  
 Invited Speaker, Atlanta. School Age Outcomes of VLBW Children. March.

LOCAL PRESENTATIONS (since 1991)

Cleveland OB/GYN Society & Northern Ohio Pediatrics Society. November 13, 1991.  
 Case Western Reserve University, Department of Psychology, Mental Retardation Lecture Series. October 11, 1991.  
 Marymount Hospital, Obstetrics Staff. "Outcome of Extremely Low Birthweight Infants". March 8, 1994.  
 Rainbow Babies & Children's Hospital, Education Series. "Postdischarge Care of High Risk Infants". April 11, 1994.  
 MacDonald Hospital for Women, Obstetrics meeting. June 3, 1994.  
 Neonatal Nurse Practitioner Course. "Developmental Follow up of High Risk Infants"; August, 1994.  
 March of Dimes Perinatal Conference. "Early and School Age Outcomes of High Risk Children"; October, 1994.  
 Neonatal Developmental Conference. "An Interdisciplinary Approach to Developmental Care in the Neonatal Nursery. Neonatal Outcomes/Premie Follow-up"; November, 1994  
 Cleveland OB/GYN Society and Northern Ohio Pediatrics Society. November 8, 1995.  
 Northern Ohio Pediatric Society. Adolescent Outcomes of VLBW Children; March, 1997.  
 Pediatrics Today - April 29, 1997  
 Pediatrics Today - October 28, 1997  
 Surgery Grand Rounds - January 11, 1999.  
 Northern Ohio Pediatric Society and Cleveland Society of Obstetricians and Gynecologists -November 17, 1999  
 Avon Lake Women's Society - June 2000.

State School Association Meeting - April 2002.

Grand Rounds, Department of Obstetrics & Gynecology, University Hospitals Health System - April 2002.  
 Research Presentation in Pediatric Department, Rainbow Babies and Children's Hospital - June 2002.  
 Richard E. Behrman Lecture in Child Development - October 2003.

## EDUCATIONAL ACTIVITIES

### Medical Student Education

Teaching Phase II Neuroscience Committee 1996, 1997.  
 Teaching Phase II Reproductive Biology - small group teaching.  
 Clinical teaching of medical students during pediatric clerkship rotations.  
 Preceptor Phase I Clinical Science Program, 1982 to 1986. (10 students, day per week)  
 Preceptor, Phase I Family Clinic Program, 1989 to 1991. (4 students, day per week)  
 Preceptor for individual medical students doing behavioral research.

### Resident and Fellowship Education

Resident training during attending and electives for Neonatal Fellowship.  
 Resident training in behavior  
 Training program for Neonatology Fellowship.  
 Training of neonatal fellows in developmental follow up of high risk infants.

### National Education

See National Presentations.

### List of Neonatal Fellowship Trainees in Outcomes Research and Follow-up

**Margaret Skidmore, M.D.** - Neonatal fellowship 1988-1989; Analysis of data concerning outcome of chronic lung disease (Skidmore MD, Rivers A, Hack M: Increased risk of cerebral palsy among very low birthweight infants with chronic lung disease. Dev Med Child Neurol, 32:325-332, 1990).  
 Now in private neonatal practice.

**Brenda Hook, M.D.** - Neonatal fellowship 1991-1994; Study of neonatal and maternal morbidity following repeat cesarean section (Hook B, Amini S, Newman N, Siner B, Fanaroff A, Hack M. Respiratory morbidity following elective repeat cesarean section. Pediatr Res 35:273A, 1994. Hook B, Amini S, Siner B, Newman N, Fanaroff A, Hack M. Neonatal morbidity and resource utilization in low risk term infants. Pediatr Res 35: 273A, 1994. Hook B, Kiwi R, Muise K, Amini S, Fanaroff A, Pollack S, Izanec J, Hack M. Trial of labor after Cesarean section: Implications for the mother and infant. Am J Obstet Gynecol, 1995. Hook B, Kiwi R, Amini SB, Siner B, Newman N, Fanaroff A, Hack M: Neonatal morbidity following elective repeat cesarean section and a trial of labor. Pediatrics; 100:348-353, 1997). Currently Assistant Professor of Pediatrics, University of Texas Health Sciences Center, Houston, TX.

**Deanne Wilson-Costello, M.D.** - Neonatal fellowship 1994-1997; Neonatal outcomes assessment [Wilson D, Rao P, Morrison S, Hack M. Radiation dose from x-rays to <750 gm birthweight survivors. Pediatr Res, 37:245A, 1995. Wilson D, Rao P, Morrison S, Hack M: Radiation dose from x-rays to <750 gm birthweight survivors. Pediatrics 97:369-375, 1996. Wilson-Costello D, Borawski E, Friedman H, Redline R, Fanaroff AA, Hack M. Perinatal correlates of cerebral palsy and other neurologic impairment among very low birthweight children. Pediatrics 102:315-322, 1998. Wilson-Costello D, Borawski E, Friedman H, Fanaroff AA, Hack M..]

**Maria Tomaszewska, M.D.** - Neonatal fellowship 1996-1998; Pulmonary hemorrhage - correlates of pulmonary hemorrhage, mortality, morbidity and two-year outcomes. Radiographic findings of pulmonary hemorrhage. [Tomaszewska M, Stork E, Mercuri Minich N, Friedman H, Berlin S, Hack M. Pulmonary hemorrhage: clinical course and outcomes among very low birthweight infants. Arch Pediatr Adolesc Med, 153: 715-721, 1999.]

**Benedict Doctor, M.D.** - Neonatal fellowship 1997-2000; Intrauterine growth failure and neonatal outcome. [Doctor BA, O'Riordan MA, Kirchner H, Shah D, Hack M: Perinatal correlates and neonatal outcomes of small for gestational age infants born at term gestation. Am. J. Obstet. Gynecol. 2001, 185:652-659. Doctor BA, Newman N, Minich NM, Taylor HG, Fanaroff AA, Hack M. Clinical outcomes of neonatal meningitis in very-low-birth-weight infants. Clin Pediatr 2001, 40:473-480.]

**Kousiki Patra, M.D.** - Neonatal fellowship 2001-2004. Adverse events associated with exchange transfusions in the 1990's. Patra K, Minich N, Taylor HG, Wilson-Costello D, Hack M. Grade I-II intraventricular hemorrhage (IVH) in extremely low birth weight infants (ELBW, < 1kg): Effects on neurodevelopment. Pediatric Research 2004, 55:504A.

**Jennifer Peterson, M.D.** - Neonatal fellowship 2003-2005. Peterson J, Taylor HG, Minich N, Klein N, Hack M. Effect of subnormal head size on school age outcomes of very low birth weight (VLBW b<1500g) children. Pediatric Research 2004, 55:475A.

Mentorship

**Lydia Furman, M.D.** 1996-2002.

**Laura Sices, M.D.** 2002-

Pediatric Resident Trainees

**Deanne Wilson-Costello, M.D.** - Radiation risk.

**Noah Cook, M.D.** - Periventricular hemorrhage outcomes.

**Amy McBee, Marissa Henderson** - Infertility VLBW Outcome.

Other

Preceptor for Ph.D. Psychology candidate Carin Cunningham, Kent State University, 1982.

Educational Medical Films in Participation with the Health Science Communication Center, Case Western Reserve University, Cleveland, Ohio, U.S.A.

1. The Neurological Evaluation of Maturity of Newborn Infants. Dr. Amiel-Tison. Produced by M. Hack, 1974.
2. The Amazing Newborn: The Innate Sensory Capacities of the Human Neonate at Birth. Produced by M. Hack, 1975.
3. The Dubowitz Test of Maturity of the Newborn. Dr. L. Dubowitz. Produced by M. Hack. Consultant: A.A. Fanaroff, 1975.
4. Neurological Evaluation within the First Year of Life. Dr. Amiel Tison. Produced by Dr. M. Hack. Consultant: A.A. Fanaroff, 1977.
5. The Ties That Bind. The Beginnings of Family Attachment. Consultants: Klaus, M.H., Kennell, J. and Hack, M. 1980. Recommended audiovisual program of the American Academy of Cerebral Palsy and Developmental Medicine.
6. The Fetal Infant: The Development of Awareness and Sensory Responsiveness in the Preterm Infant. Produced by M. Hack, 1983.
7. Premie Development. The First Two Years of Life. Produced by M. Hack, 1991.

Hack-UpdatedCV:9/20/04

