CURRICULUM VITAE

Goran Enhorning, M.D.

BUSINESS ADDRESS
The Perinatal Center
Children's Hospital of Buffalo
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Buffalo, New York 14222
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HOME ADDRESS
21 Oakland Place
Buffalo, NY 14222
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SOCIAL SECURITY NUMBER 529-60-4745

EDUCATION

<u>Institution and Location</u> Karolinska Institute, Medical	<u>Degree</u>	<u>Year</u>	Field of Study
	l MD	1952	Medicine
School, Stockholm, Sweden Karolinska Institute, Medical School, Stockholm, Sweden	l Med.Dr.	1961	Physiology

PROFESSIONAL TRAINING AND EXPERIENCE

1952-54 Served at Swedish Red Cross Hospital, Pusan, Korea
1954-61 Resident training in Surgical Departments of Sodertalje
and Karolinska Hospitals for three years and three
months, eight months of which were spent in the
Department of Paediatric Surgery, Karolinska Hospital.
Nine months as resident at Radiumhemmet, Karolinska
Institute.
Three years as Resident, Department of Obstetrics &
Gynaecology, Karolinska Institute, Sabbatsberg
Hospital, Stockholm, Sweden.

EMPLOYMENT HISTORY

- 1961-63 Visiting Associate Professor, Department of Obstetrics & Gynecology, University of Utah at Salt Lake City
- 1963-64 Full-time research with Professor Forrest H. Adams,
 Department of Pediatrics, University of California at
 Los Angeles
- 1964-71 Associate Professor, Karolinska Institute, Department of Obstetrics & Gynaecology, Sabbatsberg Hospital, Stockholm, Sweden
- 1971-76 Associate Professor, University of Toronto, Department of Obstetrics & Gynaecology, Toronto Western Hospital, Toronto, Ontario, Canada
- 1976-86 Professor, University of Toronto, Department of Obstetrics & Gynaecology, Toronto Western Hospital, Toronto, Ontario, Canada
- 1986- Clinical Professor, State University of New York at Present Buffalo, Department of Gynecology & Obstetrics Director of Perinatal Center, Children's Hospital, Buffalo, New York

HONORS AND AWARDS

1954 Awarded Medal of Freedom, U.S.A.

1961-64 Awarded Fulbright Scholarship for Academic Studies in U.S.A.

1986 Received the Clinical Research Society of Toronto Award of Lectureship

TEACHING ACTIVITIES

- 1) Teaches OB/GYN to Medical Students
- 2) Research supervised:
 Mingyao Liu, M.D., Postgraduate
 Liman Wang, M.D., Graduate Student
 E. Li, M.D., Perinatal Fellow

Trainees working part-time in the Perinatal Center include: David Moses, M.D., Perinatal Fellow Patricia Spitale, M.D., Neonatal Fellow Rhagu Ram, Medical Student

Medical Research Students, 1989 Lisa Keicher, Medical Student Kevin Ousterhoudt, Medical Student

For the summer of 1990, three students have applied to become summer students at the Perinatal Center.

GRANT SUPPORT

NIH:NHLBI:HL40896 "Pulmonary Surfactant Affected by Proteins and Other Agents"

Period of Funding: 7/1/88 - 6/30/91

Total Funding: \$264,340

Biomedical Research Support Grant No. 2860 "Adolescent Program (Pregnancy Surveillance)"

Period of Funding: 4/1/89 - 4/1/90

Total Funding: \$17,382

Children's Hospital of Buffalo Women and Children's Research Foundation Perinatal Center Grant Period of Funding: 7/1/86 - 6/30/90 Total Funding: \$409,702.42

Pending grant application to NIH: "Pulmonary Blood Flow as Affected by Pulmonary Surfactant". Funding applied for is approximately \$100,000.00 per year for five years. The application is project 5 in the Program Project submitted by Dr. Robert Klocke. The program has been approved but funding is pending.

JOURNALS REVIEWED (1989)

Pediatric Research American Review of Respiratory Disease Journal of Applied Physiology American Journal of Obstetrics and Gynecology Canadian Journal of Physiology and Pharmacology

GRANT APPLICATIONS REVIEWED (1989)

Reviewer for Canadian Medical Research Counsel Reviewer for Alberta Heritage Research Foundation

MONOGRAPH (Ph.D. Thesis)

1. Enhorning G.: Simultaneous recording of intravesical and intra-urethral pressure. Acta Chir Scand, Supp 276:1-69, 1961.

FILM

1. Enhorning G & Robertson, B.: Surfactant and the First Breath. 1977. 16mm color, 11 minute.

ARTICLES

Refereed Journals

- 1. Enhorning G, Fagerholm P, & Odeblad E.: Arteriovenosa differensmatningar pa kaninovariet. Nord Med 44: 1789, 1950.
- 2. Enhorning G & Westin B.: En behandlingsmetod vid asphysia neonatorum. <u>Sv Lakartidn</u> 48:2893, 1951.
- Odeblad E & Enhorning G.: Arteriovenous glucose difference measurements on the rabbit ovary. Acta Endorinol 13:7478, 1953.
- 4. Enhorning G & Westin B.: Aspects on the technique in giving spinal analgesia. Acta Chir Scand 108:69-75, 1954.
- 5. Enhorning G & Westin B.: Experimental studies of the human fetus in prolonged asphyxia. <u>Acta Physiol Scand</u> 31:359-375, 1954.
- Odeblad E, Scrosoppi F, & Enhorning G.: Studies on the oxygen consumption of the rabbit ovary. Acta Endocrinol 19:209-211, 1955
- 7. Westin B, Nyberg R, & Enhorning G.: A technique for perfusion of the previable human fetus. Acta Obstetr Scand 47:339-349, 1958.
- 8. Enhorning G.: A method for prolonged intra-arterial or intravenous infusion in the unrestrained animal. Acta Physiol Scand 43:200-203, 1958.

- 9. Enhorning G.: Functional sphincterometry a test for stress incontinence. <u>Urol Int</u> 10:129-136, 1960.
- 10. Enhorning G.: Closing mechanism of the female urethra.

 <u>Lancet</u> 273:1414, 1960.
- 11. Enhorning G.: Funktionell sfincterometri vid urininkontinens. Nord Med 65:569, 1961.
- Enhorning G & Westin B.: Urethral closure in the female and its insufficiency in stress incontinence. Experiences with a bladder-urethra model. Acta Obstet Gynecol Scand 42:328-337, 1963.
- 13. Enhorning G, Ingelman-Sundberg A, & Joelsson I.: Recording flow through the cervical canal. <u>Fertil Steril</u> 14:494-499, 1963.
- Enhorning G.: The surface tension of amniotic fluid. Am J Obstet Gynecol 88:519-23, 1964.
- Enhorning G, Miller E, & Hinman F.: Urethral closure studied with cineroentgenography and simultaneous urethra pressure recording. <u>Surg Gynecol Obstet</u> 118:507-516, 1964.
- 16. Enhorning G, Fujiwara T, & Adams FH.: Surface active material in fetal lung fluid concentrated by foaming.

 Tohoku J Exp Med 84:250-255, 1964
- 17. Enhorning G & Kirschbaum TH.: Surface tension of the respiratory tract fluid in fetal guinea pigs. Am J Obstet Gynecol 90:537-545, 1964.
- Enhorning G & Weaver R.: Intraureteric pressure above and below an area of compression. Am J Obstet Gynecol 90:1332-1342, 1964.
- 19. Enhorning G & Adams FH.: Surface properties of fetal lamb tracheal fluid. Am J Obstet Gynecol 92:563-572, 1965.
- Adams FH & Enhorning G.: Surface properties of lung extracts. I. A dynamic alveolar model. Acta Physiol Scand 68:23-27, 1966.
- 21. Adams FH, Enhorning G, & Norman A.: Surface properties of lung extracts. II. Comparison of fetal and adult rabbits. Acta Physiol Scand 68:28-36, 1966.
- Adams FH, Enhorning G, & Regne-Karlsson M.: Surface properties of lung extracts. III. Changes appearing during first ten minutes after surface formation. Acta Physiol Scand 68:37-42, 1966.

- Enhorning G, Adams FH, & Norman A.: Effect of lung expansion on the fetal lamb circulation. Acta Paediatr Scand 55:441-451, 1966.
- Gelli MG, Enhorning G, Hultman E, & Bergstrom J.: Glucose infusion in the pregnant rabbit and its effect on glycogen content and activity of foetal heart under anoxia. Acta Paediatr Scand 57:209-215, 1968.
- Gelli MG, Ericsson JLE, & Enhorning G.: ECG compared with myocardial ultrastructure in anoxic foetuses of normal hyperglycaemic rabbits. <u>Acta Paediatr Scand</u> 57:330-338, 1968.
- Enhorning G.: Expansion of the lungs in the new-born and its effect on pulmonary circulation. Acta Obstet Gynecol Scand 48:72-74, 1969.
- 27. Enhorning G, Huldt L, & Melena B.: The ability of cervical mucus to act as a barrier against bacteria. Am J Obstet Gynecol 108:532-537, 1970.
- Enhorning G.: Limitations of thermography for placental localization. Int J Gynaecol Obstet 8:67-72, 1970.
- Enhorning G.: Cysto-urethrometry for evaluating bladder and urethra function. <u>Int J Gynaecol Obstet</u> 8:507-516, 1970.
- Enhorning G & Ulmsten U.: Intraureteric pressures in women. Am J Obstet Gynecol 108:462-467, 1970.
- Robertson B, Enhorning G, Ivemark G, Malmquist E, & Modee J.: Paraquat-induced derangement of pulmonary surfactant in the rat. <u>Acta Paediatr Scand</u> 59:37-39, 1970.
- Robertson B, Enhorning G, Ivemark B, Malmquist E, & Modee J.: Experimental respiratory distress induced by paraquat. <u>J Pathol</u> 103:239-244, 1971.
- Robertson B, Enhorning G, & Malmquist E.: Quantitative determination of pulmonary surfactant with pulsating bubble. Scan J Clin Lab Invest 29:45-49, 1972.
- Enhorning G, & Robertson B.: Lung expansion in the premature rabbit fetus after tracheal deposition of surfactant. <u>Pediatrics</u> 50:58-66, 1972.
- Westin B, Enhorning G, & Stromberg B.: External cardiac massage as a method of treatment of neonatal asphyxia. A cineangiographic study in the piglet. Acta Obstet Gynecol Scand 51:367-370, 1972.

- 36. Enhorning G, Grossman G, & Robertson B.: Tracheal deposition of surfactant before the first breath. Am Rev Respir Dis 107:921-927, 1973.
- 37. Enhorning G, Grossman G, & Robertson B.: Pharyngeal deposition of surfactant in the premature rabbit fetus.

 <u>Biol Neonate</u> 22:126-132, 1973.
- Robertson B & Enhorning G.: The alveolar lining of the premature newborn rabbit after pharyngeal deposition of surfactant. Lab Invest 31:54-59, 1974.
- 39. Enhorning G, Robertson B, Milne E, & Wagner R.: Radiological Evaluation of the premature rabbit neonate after pharyngeal deposition of surfactant. Am J Obstet Gynecol 121475-480, 1975.
- 40. Enhorning G.: A concept of urinary continennce. <u>Urol Int</u> 31:3-5, 1976.
- 41. Enhorning G & Robertson B.: Densitometric evaluation of lung aeration in chest radiograms. Acta Radiol (Diagn) 17: 413-416, 1976.
- Ekelund L & Enhorning G.: A comparison of chemical and densitometric determinations of lecithin-sphingomyelin ratios on thin-layer chromatograms. <u>Int J Gynaecol Obstet</u> 14:5-8, 1976.
- Enhorning G.: Photography of peripheral pulmonary airway expansion as affected by surfactant. <u>J Appl Physiol</u> 42:976-979, 1977.
- Enhorning G.: Pulsating bubble technique for evaluating pulmonary surfactant. <u>J Appl Physiol</u> 43:198-203, 1977.
- Enhorning G, Chamberlain D, Contreras C, Burgoyne R, & Robertson B.: Isoxuprine-induced release of pulmonary surfactant in the rabbit fetus. Am J Obstet Gynecol 129:197-202, 1977.
- Wallin A, Burgoyne R, & Enhorning G.: Oxygen consumption of the newborn rabbit treated with pulmonary surfactant.

 <u>Biol Neonate</u> 31:245-251, 1977.
- 47. Fagan DG, Forrest JB, Enhorning G, Lamprey M, & Guy J.: Acute pulmonary toxicity of a commercial fluorocarbon-lipid aerosol. Histopathology 1:209-223, 1977.
- Cutz E, Enhorning G, Robertson B, Sherwood G & Hill D.: Hyaline membrane disease: effect of surfactant prophylaxis on lung morphology in premature primates. Am J Pathol 92:581-594, 1978.

- Enhorning G, Hill D, Sherwood G, Cutz E, Robertson B, & Bryan C.: Improved ventilation of prematurely delivered primates following tracheal deposition of surfactant.

 Am J Obstet Gynecol 132:529-535, 1978.
- Enhorning G, Chamberlain D, Contreras C, Burgoyne R, & Robertson B.: Isoxsuprine infusion to the pregnant rabbit and its effect on fetal lung surfactant. <u>Biol Neonate</u> 35:43-51, 1979.
- Doran TA, Swyer P, MacMurray B, Mahon W, Enhorning G, Bernstein A, Falk M, & Wood MM.: Results of a double-blind controlled study on the use of betamethasone in the prevention of respiratory distress syndrome. Am J Obstet Gynecol 136:313-320, 1980.
- Metcalfe IL, Enhorning G, & Possmayer F.: Pulmonary surfactant-associated proteins: their role in the expression of surface activity. <u>J Appl Physiol</u> 49:34-41, 1980.
- Enhorning G.: Artificial surfactant to prevent and treat neonatal respiratory distress syndrome. <u>Pediatrics</u> 66:799-800, 1980.
- Stewart-Dehaan PJ, Metcalfe IL, Harding PRG, Enhorning G, & Possmayer F.: Effect of birth and surfactant treatment on phospholipid synthesis in the premature rabbit. <u>Biol Neonate</u> 38:238-247, 1980.
- 55. Enhorning G.: Pulsating bubble technique for evaluating pulmonary surfactant. Prog in Respir Res 15:57-61, 1981.
- Ekelund L, Burgoyne R, Brymer D, & Enhorning G.: Pulmonary surfactant release in fetal rabbits as affected by terbutaline and aminophyllin. Scan J Clin Lab Invest 41:237-245, 1981.
- 57. Metcalfe IL, Pototschnik R, Burgoyne R, & Enhorning G.: Lung expansion and survival in rabbit neonates treated with surfactant extract. <u>J Appl Physiol</u> 53:838-843, 1982.
- Metcalfe IL, Burgoyne R, & Enhorning G.: Surfactant supplementation in the preterm rabbit: effects of applied volume on compliance and survival. <u>Pediatr Res</u> 16:834-839, 1982.
- Lysikiewicz A & Enhorning G.: Tricolor photography for assessment of spermatozoa motility. Am J Obstet Gynecol 145:229-233, 1983.

- Smyth JA, Metcalfe IL, Duffty P, Possmayer F, Bryan MH, & Enhorning G.: Hyaline membrane disease treated with bovine surfactant. <u>Pediatrics</u> 71:913-917, 1983.
- 61. Ekelund L, Burgoyne R, & Enhorning G.: Pulmonary surfactant release in fetal rabbits: immediate and delayed response to terbutaline. Am J Obstet Gynecol 147:437-443, 1983.
- 62. Enhorning G.: In search of an artificial pulmonary surfactant. J Jap Med Soc Biol Interface 15(2):1-21, 1984.
- 63. Hallman M, Enhorning G, & Possmayer F.: Composition and surface activity of normal and phosphatidyglycerol-deficient lung surfactant. <u>Pediatr Res</u> 19:286-291, 1985.
- 64. Ekelund L & Enhorning G.: Glucocorticoids and beta receptor agonists: their combined effect on fetal rabbit lung surfactant. Am J Obstet Gynecol 152:1063-1067, 1985.
- 65. Ekelund L & Enhorning G.: Pulmonary surfactant release in fetal rabbits as affected by enprofylline. Pediatr Res 19:1000-1003, 1985.
- Enhorning G, Shennan A, Possmayer F, Dunn M, Chen CP, & Milligan J.: Prevention of neonatal respiratory distress syndrome by tracheal instillation of surfactant: a randomized clinical trial. <u>Pediatrics</u> 76:145-153, 1985.
- 67. Enhorning G, Pototschnik R, Possmayer F, & Burgoyne R.: Pulmonary surfactant films affected by solvent vapors. Anesth Analq 65:1275-1280, 1986.
- Fuchimukai T, Fujiwara T, Takahashi T, & Enhorning G.: Artificial pulmonary surfactant inhibited by proteins.

 J Appl Physiol 62(2):429-437, 1987.
- Bhavnani B, Enhorning G, Ekelund L, Wallace D, & Pan C.:
 Maternal diabetes and its effect on biochemical and
 functional development of rabbit fetal lung. Biochem Cell
 Biol 66(5): 396-404, 1988.
- 70. Yu S, Wallace D, Bhavnani B, Enhorning G, Harding P, & Possmayer F.: Effect of reconstituted pulmonary surfactant containing the 6000 dalton hydrophobic protein or lung compliance of prematurely-delivered rabbit fetuses. Pediatr Res 23(1): 23-30. 1988.
- 71. Holm BA, Enhorning G, & Notter RH.: A biophysical mechanism by which plasma proteins inhibit lung surfactant activity. Chem Phys Lipids 49:49-55, 1988.

- Dunn MS, Shennan AT, Hoskins EM, Lennox K & Enhorning G.: Two-year follow-up of infants enrolled in a randomized trial of surfactant replacement therapy for prevention of neonatal respiratory distress syndrome.

 Pediatrics 82:543-7, 1988.
- 73. Enhorning G.: Surfactant Replacement in Adult Respiratory Distress Syndrome. Editorial. Am Rev Respir Dis 140:281-283, 1989.
- 74. Holm BA, Venkitaraman AR, Enhorning G, & Notter RH.: Biophysical Inhibition of Synthetic Surfactants.

 <u>Chem Phys Lipids</u>, In Press 1990.

Nonrefereed Articles

- 1. Enhorning G.: <u>Foreward to book</u>. Pulmonary Surfactant. Robertson B, van Golde LMG, & Batenburg JJ, editors. Elsevier Biomedical Press, Amsterdam, 1985.
- 2. Enhorning G.: Pathway of significance for the synthesis of pulmonary surfactant. <u>J Perinat Med</u> 15:425-428, 1987
- 3. Enhorning G.: Surfactant can be supplemented before the neonate needs it. <u>J Perinat Med</u> 15:479-483, 1987.
- 4. Enhorning G.: <u>Preface</u>. <u>In</u> Surfactant and the Respiratory Tract. Ekelund L, Jonson B, Malm L editors. Elsevier Science Publishers B.V., Amsterdam, 1989, pp. xi-xii.

Conference Proceedings

- 1. Westin B & Enhorning G.: Asphyxia neonatorum: An experimental study of the human fetus with special reference to treatment. In: Prophylaxie Gynecologie et Obstetrique. Geneve, 1954.
- 2. Enhorning G.: Simultaneous recording of the intraurethral and intravesical pressure in women. <u>Proc R Soc</u> <u>Med</u> 53: 1019-1020, 1960.

3. Furuhjelm M, Carlstrom K, & Enhorning G.: Endocrinological aspects of male infertility. Proceedings of the Sixth World Congress on Fertility and Sterility, Tel Aviv, 259-261, 1968.

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- 4. Enhorning G.: Kost under graviditet och forlossingsarbete: obstetriska synpunkter. (Nutrition During Pregnancy and Delivery) Semper AG, Fack, 104:35, Stockholm, 1969.
- 5. Enhorning G & Norberg B.: Clearance of PAH and insulin without the use of bladder catheter. <u>Int J Gynaecol Obstet 8:198, 1970.</u>
- 6. Enhorning G.: Urethrocystometrie. IN Vortrage und Wissenschaftliche Beitrage der 5. Akademischen Tagung deutschsprechender Professoren und Privat-dozenten für Geburtshilfe und Gynakologie. 11-13 Juni 1968, in Graz. Stuttgart 1971, 00 187-190.
- 7. Hardy P, Lysikiewicz A, & Enhorning G.: Hypophase effect on DPPC monolayer. <u>Prog Respir Res</u> 18:10-17, 1984.
- 8. Enhorning G.: Pre-eclampsia: A hypothesis for its pathogenesis. Acta Obstet Gynecol Scand Suppl 118:7-11, 1984.
- 9. Ekelund L, Anderson K-E, & Enhorning G.: Release of fetal lung surfactant: effects of xanthine and adenosine. In Anti-asthma Xanthines and Adenosine, Anderson K-E & Persson CGA, editors. Exerpta Medica, Amsterdam, 1985, pp. 202-208.
- 10. Enhorning G.: Surfactant supplementation: Toronto trial. In Physiology of the Fetal and Neonatal Lung. Walters DV, Strand LB, Guebelle F, editors. MTP Press Limited, Ma, 1987.
- 11. Enhorning G.: Pulmonary surfactant: Evolution of functional concepts. <u>In</u> Surfactant Replacement Therapy in Neonatal and Adult Respiratory Distress Syndrome. Lachmann B. editor. Springer-Verlag Publishers. Berlin Heidelberg, Germany, 1988, pp. 1-9.
- 12. Enhorning G.: Evaluation of pulmonary surfactant. <u>In</u> Surfactant Replacement Therapy in Neonatal and Adult Respiratory Distress Syndrome. Lachmann B. editor. Springer Verlag Publishers. Berlin Heidelberg, Germany, 1988, pp. 13-17.

- 13. Enhorning G.: Physiology and importance of surfactant supplementation. <u>In</u> Proceedings of XI European Congress of Perinatal Medicine. Cosmi EV, Di Renzo GC editors. Harwood Academic Publishers, Chur, 1989, pp. 506-511.
- 14. Holm BA, Enhorning G & Notter R.: The inhibition of surfactant function by plasma-derived proteins. <u>In</u> Surfactant and the Respiratory Tract. Ekelund L, Jonson B, Malm L editors. Elsevier Science Publishers B.V., Amsterdam, 1989, pp. 261-271.
- 15. Enhorning G.: Asthma, a condition of surfactant deficiency. <u>In</u> Surfactant and the Respiratory Tract. Ekelund L, Jonson B, Malm L editors. Elsevier Science Publishers B.V., Amsterdam, 1989, pp. 273-281.
- 16. Holm BA, Notter RH & Enhorning G.: Biophysical and Physiological Properties of Synthetic Surfactants. Prog Resp Res. 25:305-7, 1990.
- 17. Enhorning G.: Surfactant Research of Interest to the Clinician. Prog Resp Res. 25:265-70, 1990.

Book Chapters

- Possmayer F, Metcalfe IL, & Enhorning G.: The pulmonary surfactant: control of fluidity at the air-liquid interface. <u>In</u> Membrane Fluidity: Biophysical Techniques and Cellular Regulation. Kates and Kuksis, editors. The Humana Press, Inc. Clifton, New Jersey, 1980, pp.57-67.
- 2. Enhorning G.: Hyaline membrane disease and artificial surfactant. <u>In</u> Recent Advances in Perinatal Medicine, Volume 1. Chiswick ML, editor. Churchill Livingstone, London, 1983, pp. 191-207.
- 3. Enhorning G.: Surfactant in the treatment of RDS. <u>In</u>
 Developmental Pharmacology, Progress in Clinical and
 Biological Research, Vol 135. Macleod SM, Okey AB, &
 Spielberg SP, editors. Alan R. Liss, Inc., New York,
 1983, pp. 267-272.
- 4. Enhorning G.: Surfactant supplementation. <u>In</u> Critical Care of the Child. Prakash O, editor. Martinus Nijhoff Publishers, The Hague, The Netherlands, 1984, pp. 63-69.

- 5. Enhorning G.: Attempts at prevention of hyaline membrane disease in the delivery room. <u>In</u> Pulmonary Development and Transition from Intrauterine to Extrauterine Life. Nelson GH, editor. Marcel Dekker, Inc., New York, 1985, pp. 285-310.
- 6. Enhorning G.: Pulmonary surfactant--of importance in asthma? In Childhood Asthma and Sustained Release Theophylline. Macleod SM & Szefler SJ, editors. Exerpta Medica, Amsterdam, 1986, 99. 60-68.
- 7. Enhorning G.: Animal experiments preceding the clinical use of pulmonary surfactants. <u>In</u> Surfactant Replacement Therapy. Shapiro DL, Notter RH editors. Alan R. Liss, Inc., New York, 1989, pp. 163-177.

<u>1981</u> :	
January 8	 Invited speaker, Annual Meeting of the American Association for the Advancement of Science, Royal York Hotel, Toronto.
<u>March 15 - April 15</u>	 Consultant in Perinatology to five teaching hospitals in the People's Republic of China, under the auspices of WHO (World Health Association).
May 1	- Invited speaker at Perinatal Rounds, St. Joseph's Hospital, London, Ontario.
September 1	- Invited speaker, Department of Obstetrics & Gynaecology Rounds, McMaster University, Hamilton, Ontario.
1982:	
<u>March 24-26</u>	 Visiting Professor, University of Manitoba, Departments of Obstetrics, Gynecology & Reproductive Medicine, Winnipeg.
October 5	 Invited speaker, International Symposium on Developmental Pharmacology, Hospital for Sick Children, Toronto.
October 6-9	 Invited speaker, NIH Mackinac Island Workshop on Artificial Surfactant, Mackinac Island, Michigan.
<u>October 17-22</u>	 Invited speaker, Tenth World Congress of Gynaecology and Obstetrics, San Francisco, California.
November 12-14	 Invited speaker, Ontario and Quebec Perinatal Investigators Annual Meeting, London, Ontario.
December 3	 Invited speaker, Department of Obstetrics and Gynecology and the Department of Opthalmology and Visual Sciences, Texas Tech University, Helath Sciences Center, Lubbock, Texas.
1983:	
February 4-5	 Invited speaker, Conference on Pregnancy-Induced Hypertension, Copenhagen, Denmark.

September 1 - Invited speaker, Department of Biochemistry, Memorial University of Newfoundland, St. John's, Newfoundland.

September 22-24 - Invited speaker, 2nd International Symposium on Surfactant Research, Marburg/Lahn, Germany.

October 1	 Invited speaker, Obstetrical and Gynaecological Travel Club Annual Meeting, Toronto.
November 28 - December 3	 Invited speaker, 2nd International Symposium on Applied Physiology in Critical Care and Anesthesia with emphasis on Children, Aruba.
<u> 1984</u> :	
January 20	- Invited speaker, Ontario Thoracic Society Meeting, Toronto.
February 15	- Visiting Professor, Department of Obstetrics and Gynaecology, University of Ottawa, Ottawa.
March 6-7	- Invited speaker, Department of Obstetrics and Gynzecology, Queen's University, Kingston, Ontario.
<u>March 14-15</u>	- Invited speaker, Department of Biochemistry, St. Louis University, St. Louis, Missouri.
<u>May 31 - June 1</u>	- Visiting Professor, Department of Pediatrics, Iwate Medical University, Morioka, Japan.
June 2	 Invited speaker, XVIIIth Scientific Meeting of the Japanese Medical Society for Biological Interface, Iwate Medical University, Morioka, Japan.
June 15	- Invited speaker, Department of Obstetrics and Gynecology, Seoul National University Hospital, Seoul, Korea.
<u>October 23-27</u>	- Invited speaker, 31st Annual Meeting, American College of Obstetricians and Gynecologists, Toronto, Ontario.
November 30 - December 1	- Invited speaker, Special Ross Conference (Clinical Trials of the Use of Surfactant in the Neonatal Respiratory Distress Syndrome), Washington, D.C.
1985:	
<u>April 8-27</u>	- Visiting Professor, Department of Pediatrics, Iwate Medical Universsty, Morioka, Japan.
<u>Mav 30</u>	- Invited Consultant, on-site visit re: planned perinatal center, Children's Hospital of Buffalo, Buffalo, N.Y.
June 6-8	 Invited speaker, International Symposium on Physiology and Pathology of the Fetal and Neonatal Lung, Brussels, Belgium.

June 28	- Invited speaker, Symposium on New Directions in the Management of Neonatal Lung Disease, Denver, Colorado.
October 6-8	 Invited speaker and moderator, Eleventh Annual New England Conference on Perinatal Research, Newport, Rhode Island.
<u> 1986</u> :	
March 5-6	 Visiting Professor, Department of Obstetrics and Gynaecology, University of Texas Health Science Center, Dallas, Texas.
Abril 5	- Received the Clinical Research Society of Toronto Award Lectureship, for success in integrating basic and clinical research, on the occasion of presenting the lecture"The Preterm Neonate and its Surfactant Deficiency" at the Annual Meeting of the Society, held in Toronto, Ontario, April 5, 1986.
September 5-7	 Invited speaker, International Workshop of Fetal Lung Maturation and Surfactant Deficiency in the Newborn, Department of Obstetrics and Gynaecology, Klinikum - Steglitz, Freie Universitat Berlin, Berlin, Germany.
October 1-4	 Invited to give J. Marion Sims Lecture at the Gynecologic Urology Society Meeting in Montreal, Quebec, Canada.
<u> 1987:</u>	
<u>Mav 11</u>	 Invited speaker, NIH Symposium on: Pulmonary Surfactant and Neonatal Respiratory Distress Syndrome: Past, Present, and Future, at the 1987 Annual Meeting of the American Thoracic Society.
June 9-12	 Invited Guest speaker for Nordiska Kongressen Perinatal Medicin Program in Reykjavik Island, Iceland. Symposium III: "The Stress of birth."
October 8	 Invited Visiting professor, Schneider Children's Hospital, SUNY at Stony Brook.

ENHORNING 4.

October 26-28	-	Invited Speaker, Ross Conference on Pediatric Research on "American Experiences of Surfactant Replacement." Carefree, Arizona.
November 13-14	-	Invited speaker for International Symposium on Surfactant Replacement Therapy, Rotterdam, The Netherlands. Introductory Lecture: "Pulmonary Surfactant: evolution of functional concepts." and Second Lecture: "Evaluation of pulmonary surfactant".
1988:		
April 10-13	-	Invited speaker to XI European Congress of Perinatal Medicine, Rome.
June 2-4	-	Invited speaker to the Eric K. Fernstrom Symposium "Surfactant and the Respiratory Tract" Lund, Sweden.
September 12-14	-	Invited speaker to the 3rd International Symposium on "Basic Research on Lung Surfactant" Marburg, Germany.
October 3-4	-	Invited speaker to "International Meeting in Pediatrics & Neonatology" Saint Vincent, Italy.
<u> 1989:</u>		
January 3	-	Visiting Professor, Department of Obstetrics and Gynecology, McMaster University, Hamilton, Canada.
April 3-30	-	Invited to set up research project and lecture at the Institute for Pediatric Research, Beijing, China. Invitation from Dr. Sheng Huan Dong who is Professor of Pediatrics. He applied to government and received support for travel expenses.

<u>May 3-7</u>	-	Visiting Professor at Department of Pathophysiology, Second Military Medical College, Shanghai, China.
<u>May 10</u>	-	Invited speaker to Department of Obstetrics and Gynecology, North Shore University Hospital, Manhasset, New York.
June 23	-	Invited to give a 45 minute lecture on "Prematurity and Employment of Surfactant" at American College of Obstetricians and Gynecologists meeting at Sagamore, New York.
November 11-17	-	Invited speaker at Floating Congress on the River Rhine "60 years of Surfactant Research".
November 18	-	Invited speaker at "19 Bielefelder anaethesiologisches Colloquium" Bielefeld, West Germany.