

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel in the order listed for Form Page 2.
Follow the sample format on for each person. (See attached sample). **DO NOT EXCEED FOUR PAGES.**

NAME		POSITION TITLE	
Michael G. Ross, M.D., M.P.H.		Professor & Chairman of Ob/Gyn	
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Massachusetts Institute of Technology, Cambridge, MA	B.Sc.	1973	Life Sciences
Harvard Medical School, Boston, MA	M.D.	1978	Medicine
Harvard Medical School, Boston, MA	M.P.H.	1978	Public Health

A. Positions and Honors.**Positions and Employment**

1979 – 1982	Resident, Obstetrics/Gynecology, Brigham & Women's Hospital, Boston, MA
1982 – 1984	Fellow, Mat-Fetal Medicine, Harbor-UCLA and Cedars-Sinai Medical Centers, Los Angeles, CA
1984 – 1988	Assistant Professor, Ob/Gyn & Pub Health, UCLA School of Med & Pub Health, Los Angeles, CA
1988 – 1992	Associate Professor, Ob/Gyn & Pub Health, UCLA School of Med & Pub Health, Los Angeles, CA
1989 – 1996	Director, Maternal-Fetal Medicine Training Program, Harbor-UCLA & Cedars-Sinai Med Center
1992 – 1996	Chief, Division of Obstetrics, Harbor-UCLA Medical Center, Los Angeles, CA
1993 – Present	Professor of Ob/Gyn and Public Health, UCLA School of Medicine and Public Health, LA, CA
1995 – Present	Chairman, Department of Ob/Gyn, Harbor-UCLA Medical Center Medicine, Torrance, CA

Honors

	Phi Beta Kappa Honor Society
1983	Sam Seeds Fellowship in Maternal-Fetal-Medicine
1991	Richard Weitzman Research Memorial Award, Harbor-UCLA Medical Center
1996	Society of Perinatal Obstetricians Prize Poster Abstract at 16th Annual Meeting
1999	Society for Gynecologic Investigation: President Presenter Award (Mentor)
1999	Jerry Elliott Memorial Lectureship, S. Central Conference on Perinatal Research, Austin, TX

B. Selected peer-reviewed publications (in chronological order).

- Ross MG**, Cedars LA, Nijland MJM, Ogundipe OA. Treatment of oligohydramnios with maternal 1-deamino-[8-D-arginine]vasopressin-induced plasma hypoosmolality. *Am J Obstet Gynecol* 1996;174:16-13.
- Ross MG**, Nijland MJM, Kullama LK. 1-Deamino-[8-D-arginine] vasopressin-induced maternal plasma hypoosmolality increases ovine amniotic fluid volume. *Am J Obstet Gynecol* 1996;174:1118-27.
- Nijland MJM, Chao CR, **Ross MG**. Anticholinergic suppression of ovine fetal swallowing activity. *Am J Obstet Gynecol* 1997;177:1105-1112.
- Ross MG**, Nijland MJM. Fetal swallowing: Relation to amniotic fluid regulation. *Clin Obstet Gynecol* 1997;40:352-65.
- Roberts TJ, Nijland MJM, Williams L, **Ross MG**. Fetal diuretic responses to maternal hyponatremia: Contribution of placental sodium gradient. *J Appl Physiol* 1999;87:1440-1447.
- Ma S-X, **Ross MG**, Fang Q, Chao CR. Influence of fetal to neonatal transition on nitric oxide synthase expression in the nucleus tractus solitarius in sheep. *Dev Brain Res* 1999;118:119-127.
- El-Haddad MA, Chao CR, Ma S-X, **Ross MG**. Nitric oxide modulates angiotensin II-induced drinking behavior in the near term ovine fetus. *Am J Obstet Gynecol* 2000;182:713-719.
- Xu Z, **Ross MG**. Appearance of central dipsogenic mechanisms induced by dehydration in near-term rat fetus. *Dev Brain Res* 2000;121:11-18.
- Mann SE, Grover MD, **Ross MG**. Novel technique for assessing amniotic fluid volume: use of a three dimensional bladder scanner. *J Matern Fetal Med* 2000;9:308-310.

10. Roberts TJ, Caston-Balderrama A, Nijland MJ, **Ross MG**. Central neuropeptide Y stimulates ingestive behavior & increases urine output in the ovine fetus. *Am J Physiol Endocrinol Metab* 2000;279:E494-E500.
11. Xu Z, Calvario G, Day L, Yao J, **Ross MG**. Osmotic threshold and sensitivity for vasopressin release and Fos expression by hypertonic NaCl in ovine fetus. *Am J Physiol Endocrinol Metab* 2000;279:E1207-E215.
12. Nijland MJ, **Ross MG**. Ovine hourly fetal urine production: relation to fetal electrocortical activity. *J Matern Fetal Med* 2000;9:267-272.
13. Mann SE, Fresquez M, **Ross MG**. A simplified index of the plasma sodium threshold for arginine vasopressin secretion – morning fasting, euhydrated sodium levels. *Am J Obstet Gynecol* 2000;183:933-36.
14. Van Gemert MJC, Umur A, Tijssen JG, **Ross MG**. Twin-twin transfusion syndrome: etiology, severity and rational management, *Curr Opin Obstet Gynecol* 2001;13:193-206.
15. Roberts TJ, Nijland MJM, Caston-Balderrama A, **Ross MG**. Central leptin stimulates ingestive behavior and urine flow in the near term ovine fetus. *Horm Metab Res* 2001;33:144-50.
16. Xu Z, Nijland MJM, **Ross MG**. Plasma osmolality dipsogenic thresholds and C-fos expression in the nearterm ovine fetus. *Pediatr Res* 2001;49:678-685.
17. Xu Z, **Ross MG**, Johnson AK. Intracerebroventricular carbachol induces FOS immunoreactivity in lamina terminalis neurons projecting to the supraoptic nucleus. *Brain Res* 2001;895:104-10.
18. Sase M, Lee JJ, **Ross MG**, Buchmiller-Crair TL. Effect of hypoxia on fetal gastrointestinal motility. *J Surg Res* 2001;99:347-351.
19. **Ross MG**, Brace RA, The NIH Workshop Participants. National Institute of Child Health and Development Conference summary: amniotic fluid biology – basic and clinical aspects. *J Matern Fetal Med* 2001;10:2-19.
20. Umur A, van Gemert MJ, **Ross MG**. Amniotic fluid and hemodynamic model in monochorionic twin pregnancies and twin-twin transfusion syndrome. *Am J Physiol Regul Integr Comp Physiol* 2001;280:R1499-509.
21. Nijland MJ, Day L, **Ross MG**. Ovine fetal swallowing: Expression of preterm neurobehavioral rhythms. *J Matern Fetal Med* 2001;10:251-7.
22. Wang S, Kallichanda N, Song W, Ramirez B, **Ross MG**. Expression of aquaporin 8 in human placenta and chorioamniotic membranes: Evidence of molecular mechanism for intramembranous amniotic fluid resorption. *Am J Obstet Gynecol* 2001;185:1226-31.
23. Balderrama AC, Nijland MJM, McDonald TJ, **Ross MG**. Intact osmoregulatory centers in the preterm ovine fetus: Fos induction following an osmotic challenge. *Am J Physiol Heart Circ Physiol* 2001;281:H2626-35.
24. El-Haddad M, Chao C, Abdel Sayed A, **Ross MG**. Effects of central angiotensin-II (ANG-II) receptor antagonism on fetal swallowing activity, *Am J Obstet Gynecol* 2001;185:828-33.
25. Umur A, van Gemert MJ, Nikkels PG, **Ross MG**. Monochorionic twins and twin-twin transfusion syndrome: Protective role of arterio-arterial anastomoses. *Placenta* 2002;23:201-9.
26. El-Haddad MA, Chao CR, Ma SX, **Ross MG**. Neuronal NO modulates spontaneous and ANG II-stimulated fetal swallowing behavior in the nearterm ovine fetus. *Am J Physiol Regul Integr Comp Physiol* 2002;282:R1527-7.
27. Ramirez BA, Wang S, Kallichanda N, **Ross MG**. Chronic in utero plasma hyperosmolality alters hypothalamic arginine vasopressin synthesis and pituitary arginine vasopressin content in newborn lambs. *Am J Obstet Gynecol* 2002;187:191-6.
28. **Ross MG**, Gala R. Use of umbilical artery base excess: Algorithm for the timing of hypoxic injury. *Am J Obstet Gynecol Clin Opin* 2002;187:1-9.
29. Ramirez BA, Wang S, Kallichanda N, **Ross MG**. Chronic in utero plasma hyperosmolality alters hypothalamic arginine vasopressin synthesis and pituitary arginine vasopressin content in newborn lambs. *Am J Obstet Gynecol* 2002;187:191-6.
30. Wang S, Chen J, Kallichanda N, Azim A, Calvario G, **Ross MG**. Prolonged prenatal hypernatremia alters neuroendocrine and electrolyte homeostasis in neonatal sheep. *Exp Biol Med* 2003;228:41-5.
31. Wang S, Chen J, Au K, **Ross MG**. Expression of aquaporin 8 and its up-regulation by cAMP in amnion derived WISH cells. *Am J Obstet Gynecol* 2003;188:997-1001.
32. Desai M, Ladella S, **Ross MG**. Reversal of pregnancy-mediated plasma hypotonicity in the near-term rat. *J Matern Fetal Neonatal Med* 2003;13:197-202.
33. Desai M, Xu Z, Guerra C, Kallichanda N, **Ross MG**. Maternal DDAVP-induced hyponatremia preserves fetal urine flow during acute fetal hemorrhage. *Am J Physiol Regul Integr Comp Physiol* 2003. (In Press)

C. Research Support

Ongoing Research Support

R01 5 R01 HL40899-12 Ross (PI)

04/01/89 – 03/31/04

NIH/NHLBI

Maternal Dehydration: Fetal/Amniotic Fluid Homeostasis

The specific aims of the project are to: 1) Correlate the degree of acute plasma hyponatremia with fetal fluid responses; 2) Determine the therapeutic level of plasma hyponatremia which increases amniotic fluid (AF) volume; 3) Treat oligohydramnios with maternal DDAVP; 4) Determine the effect of chronic hyponatremia on fetal brain water and electrolyte content; 5) Determine the effect of DDAVP-induced hypotonicity on fetal AVP secretory responses; and 6) Determine the effects of altered plasma tonicity on fetal hypothalamic AVP mRNA and pituitary AVP content.

Role: PI

5 R01 DK43311-11 Ross (PI)

08/01/91 – 08/31/08

NIH/NIDDK

Fetal Swallowing: Development of Central Dipsogenic Mechanisms

The Specific Aims are: 1) Determine the ontogenesis of central hypertonic saline dipsogenic mechanisms; 2) Determine the role of MnPO synaptic integration of SFO and OVLT pathways to fetal dipsogenic responses; 3) Examine if the development of endocrine modulation of dipsogenic responses coincides with the onset of specific receptor binding in the SFO, OVLT and MnPO.

Role: PI

1 R03 HD39671-02 Ross (PI)

5/18/01 – 4/30/04

NIH/NICHD

Leptin and Neuropeptide-Y Alters Fetal Swallowing Activity

The objective is to determine whether fetal swallowing activity is altered by central leptin and neuropeptide NPY.

Role: PI

6-FY01-74 Ross(PI)

6/1/01 – 5/31/04

March of Dimes Birth Defects Foundation

Ontogeny and Regulation of Fetal Colonic Mobility: Mechanisms for MEC Passage

The goal of this project is to delineate the development and regulation of fetal colonic motility with the potential to develop novel and effective therapeutics to prevent neonatal MEC aspiration syndrome.

Role: PI

Completed Research Support

None